

Web TimeSheet

Project & Billing Edition
Time & Attendance Edition
Web Expense
Web Schedule

Version 8.13 to 8.25

INSTALLATION GUIDE



Notices

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CHAPTER 1

Welcome

Welcome to the *Web TimeSheet Installation Guide*. This document provides information on installing or upgrading the self-hosted version of Web TimeSheet. It includes step-by-step installation and upgrade procedures, as well as details of the system requirements and optional system configuration.

All information in this guide applies to the Project & Billing Edition, the Time & Attendance Edition, Web Expense, and Web Schedule, unless otherwise stated.




About Web TimeSheet


Web TimeSheet is a web-based application designed to help you and your organization effectively manage time, time off, expenses, and user schedules. With Web TimeSheet, your employees can enter data quickly and easily, at any time, and from anywhere with Internet access. Once submitted, items are automatically forwarded to the appropriate supervisor or manager for approval. Additionally, reports can be generated to track data such as project costs, client billing totals, productivity rates, and payroll details.

Unlike traditional PC applications or client-server applications, the only software that is required on each user's PC is a standard Javascript-enabled web browser. The application is installed and runs on your web server, or it can be hosted by Replicon to reduce your administration and equipment costs.

Document Conventions

This guide uses the following conventions:

- References to other areas in the document are shown *in italics and in blue* to indicate active links that are internal to the document. To automatically navigate to the section being referenced, select the link.
- Hyperlinks to websites or e-mail addresses are shown in blue and underlined to indicate active links external to the document. To open a new browser window to the website or to send an e-mail to the address, select the link.
- Key information is highlighted using a blue background for quick reference. An icon is used to indicate the type of information being provided, as follows.
 - The  icon indicates a note, which provides a reminder of an important requirement or further details on how the software operates.
 - The  icon indicates a warning notice. Warnings point out features or actions that can have negative results if used incorrectly.
 - The  icon indicates a tip or hint designed to assist you in using the product more efficiently.

 The online help system uses these same conventions for easy identification of important notes, warnings, and tips.

Contacting Support

If you would like assistance installing or upgrading Web TimeSheet, please contact our Customer Support team using one of the following methods:

Direct Phone:	403-262-6519 ext 2
Toll-Free Phone:	
North America:	1-877-862-2519 ext 2
Europe/New Zealand:	00-800-8622-5192 ext 2
Australia:	0011-800-8622-5192 ext 2
E-mail:	support@replicon.com
Web-Based Form:	www.replicon.com/Support/RequestHelp.aspx
Fax:	403-233-8046


Web TimeSheet Installation Types

Web TimeSheet is available in self-hosted and SaaS (Replicon-hosted) versions, described below. For information on evaluating Web TimeSheet or purchasing either type of Web TimeSheet implementation, visit our website at www.replicon.com.

SaaS (Replicon-hosted) Implementation

The SaaS (Replicon-hosted) version of Web TimeSheet:

- Is implemented on servers managed by Replicon.
- Is available to your users through the Internet, via a web address provided by Replicon or through the **Customer Login** section of the Replicon website.
- Eliminates the overhead of purchasing and maintaining application and database servers.
- Is available in a trial version used to evaluate Web TimeSheet, available with or without sample data.
- Has two available hosting options:
 - Contract plan - Enter into a contract with Replicon for the number of months you select. Contract plans are discounted, as compared to the cost of a Month-To-Month plan with the same term and licensing.
 - Month-To-Month plan - Pay for Web TimeSheet after each month of usage, with no commitment required; you can cancel at any time.

 If you choose the SaaS (Replicon-hosted) version, you will not need to complete the installation and upgrade processes outlined in this guide.

Self-hosted installation (full version only)

The self-hosted version of Web TimeSheet:

- Is installed and managed by your organization.
- Can be used with a variety of database platforms (see below).
- When purchased, is installed on your server using a file provided by Replicon.
- Once installed and implemented, is available to users across your network.

System Requirements (Version 8.13 and higher)

The sections that follow provide the system requirements for each type of Web TimeSheet installation.

 Refer to <http://www.replicon.com/support/integration-help.aspx> for the system requirements for using the Web TimeSheet integration managers for QuickBooks and Microsoft Project.

Self-Hosted Full Version

Below are the requirements for the full version of the self-hosted installation, which requires an application server, a database platform, and client machines.


Server Requirements

The server on which Web TimeSheet is installed must meet the following requirements.

Operating System

One of the following:

- Windows Server 2008 R2
- Windows Server 2008
For Web TimeSheet version 8.23 and lower, only the 32-bit version is supported.
- Windows Server 2003 R2
- Windows Server 2003
For Web TimeSheet version 8.23 and lower, only the 32-bit version is supported.
For Web TimeSheet version 8.22 and higher, Service Pack 1 is required.
- **For Web TimeSheet version 8.20 and lower only**, Windows 2000 with Service Pack 4 and KB835732 Security Update

 **In 64-bit systems, Web TimeSheet requires that IIS be run in 32-bit compatibility mode**
The Web TimeSheet installer will automatically set IIS to 32-bit compatibility mode during installation, if it is required. In IIS 7.0 this setting applies to Web TimeSheet's application pool only.

In IIS 6.0, 32-bit compatibility is a system-wide setting, and may affect other applications installed on your server

If you encounter problems with other applications due to this automatically changed setting and need to uninstall, Web TimeSheet will not automatically disable 32-bit compatibility. Refer to [Disabling 32-Bit Compatibility in IIS 6.0 when Uninstalling Web TimeSheet](#) on page 33 for instructions on how to revert this setting manually.

Can I use Mac or Linux?

No, Web TimeSheet cannot be installed on Mac or Linux/UNIX operating systems. However, Mac and Linux users can use the SaaS (Replicon-hosted) version of Web TimeSheet.

Hardware

Minimum (suggested only for fewer than 50 users):

- Pentium III, 800 MHz processor
- 512 MB of RAM
- 1 GB of hard disk space

- SMTP-compliant e-mail server

Recommended:

- Pentium IV, 1.4 GHz processor or higher
- 1 GB of RAM or more
- 1 GB of hard disk space or more
- SMTP-compliant e-mail server
- 1024 x 768 monitor resolution


Software

All of the following:

- Microsoft Message Queuing, **required for Web TimeSheet 8.22 and higher only**

 Refer to [Chapter 5, Installing Microsoft Message Queuing](#) on page 21 for installation instructions.

- Microsoft Windows Installer 3.1 (installed automatically)
- Microsoft .NET Framework:
 - Version 3.5, **required for Web TimeSheet version 8.22 and higher**
 - Version 2.0 with Service Pack 1, **required for Web TimeSheet version 8.24 and higher, and 8.21 and lower**

 **.NET Framework 3.5 is NOT automatically installed on Server 2008 and Server 2008 R2** Whenever possible, the Web TimeSheet installer will automatically install required versions of .NET Framework during installation. However, .NET Framework 3.5 cannot be automatically installed in Server 2008 and 2008 R2 since it is included as a Windows component in those versions. Therefore, you must install this component before you can upgrade to Web TimeSheet version 8.22 or higher. For information on how to install the component, refer to [A. Prepare to Install or Upgrade](#) on page 25.

- C Runtime Library 9.0 (installed automatically)
- Microsoft Data Access Components (MDAC) 2.8 or higher, if using a Microsoft SQL Server (standard, Express, or MSDE) database (installed automatically)
- Microsoft Internet Information Services (IIS) 6.0, 7.0 or 7.5, **required for Web TimeSheet version 8.24 and higher**
- [SQL Server Management Studio Express](#) (optional - used to administer your SQL Server Express database)

Database Requirements

Web TimeSheet requires one of the following database platforms be installed, either on the Web TimeSheet server or on a server accessible by Web TimeSheet. If installed on a separate server, that server must also meet the requirements listed in [Server Requirements](#) on page 8.

- Microsoft SQL Server 2005 or 2008
- Microsoft SQL Server 2005 Express (installed automatically, if selected)
- Oracle Requirements:

Oracle Server requirements:

- Oracle 9.2 (9.2.0.1) or higher
- If using Oracle 10g, version 10.2.0.4 or higher is required

Web TimeSheet Server requirements, for Web TimeSheet version 8.24 and higher:

- Oracle Database 11g Client Release 2 (11.2.0.1.0) or higher, 32-bit only
AND
- Oracle 11g Release 2 ODAC (11.2.0.1.2) or higher

Web TimeSheet Server requirements, for Web TimeSheet version 8.23 and lower:

- Oracle Database 10g Client Release 2 (10.2.0.1.0) or 11g Client Release 1 (11.1.0.6.0)
AND
- Oracle 10g Release 2 ODAC (10.2.0.2.21)

Client Requirements

Each computer being used to access the Web TimeSheet system must meet the following requirements.

Operating System

One of the following:

- Windows 9x
- Windows NT
- Windows 2000
- Windows XP
- Windows Server 2003
- Windows Vista
- Windows Server 2008
- Windows 7, **for Web TimeSheet version 8.22.1 and higher only**
- Macintosh OS X
- Linux workstations and UNIX terminals running X Windows

Hardware

Minimum:

- Pentium III, 450 MHz processor
- 128 MB of RAM

Recommended:

- Pentium III, 800 MHz processor or higher
- 512 MB of RAM or more
- 1024 x 768 monitor resolution

Software

Windows-based systems require one of the following:

- **For Web TimeSheet version 8.13 to 8.23**, Mozilla Firefox 3.x
For Web TimeSheet version 8.24, Mozilla Firefox 3.6 and 4.0
For Web TimeSheet version 8.25, Mozilla Firefox 3.6 and their latest new version¹

- Google Chrome's latest stable release¹
- Microsoft Internet Explorer 6.0, 7.0, 8.0 and **for version 8.24 and higher only**, 9.0

Optional


Depending on the features in use, systems may require:

- Microsoft Internet Explorer 7.0 or higher, or Mozilla Firefox 3.5 or higher, required if using these browsers with the Smart Interface timesheet format
- Microsoft Internet Explorer 6.0 or higher, required if using Pivot Tables (Firefox does not support ActiveX controls)
- Adobe Flash Player 8 or higher, required if using graphical reports
- Microsoft Outlook 2003 or 2007, required if exporting time off to Outlook (Time & Attendance Edition only)
- Apple iCal, Microsoft Outlook 2007, or Windows Calendar, required if using an iCal feed for time off (Time & Attendance Edition only)

Recommended Configuration for Offline Timesheets or Expenses Sheets

Support for offline timesheets and expense sheets has been confirmed under the following system configuration:

- Microsoft Windows 2000, XP, or 2003
- Microsoft Outlook 2003
- Microsoft Internet Explorer 6.0 or 7.0

 Offline timesheets and expense sheets are **not** available for those using Integrated Windows Authentication.

Offline timesheets are only available if you are using the **Standard** timesheet format.


SaaS (Replicon-hosted) Full and Trial Versions

Since Replicon manages their application server and database, those using a SaaS (Replicon-hosted) implementation only require one or more client machines to access to the system.

Client Requirements

Each client machine used to access Web TimeSheet must meet the following requirements:

- The requirements listed in [Client Requirements](#) on page 10
- High-speed Internet connection

 Refer to <http://www.replicon.com/support/integration-help.aspx> for the system requirements for using the Web TimeSheet integration managers for QuickBooks and Microsoft Project.

1. The latest stable version of the browser available at the time of the Web TimeSheet's release.

CHAPTER 3

Configuring your Database prior to Installation

Before installing or upgrading using the Oracle or SQL Server database platforms, you may need to complete some configuration.

Do I need to pre-configure my database?

Pre-configuration may not be required if you are upgrading an existing Web TimeSheet database in place (that is, if you are not moving the data to a new database during upgrade). Refer to the table below for more information.

If you plan to move your data to a new database, you will need to override the Web TimeSheet installer. Contact Replicon Support for information on how to do this.

Database Type	Type of Configuration	This configuration is REQUIRED...	Refer to...
SQL Server	Configuring SQL Server authentication	<ul style="list-style-type: none">If you are using a new database for Web TimeSheet (either when installing or when moving data to a new database during an upgrade), ANDIf you connect using a SQL Server-specific login name and password (instead of Windows authentication)	page 12
Oracle	Ensuring Settings for Unicode Character Sets are Correct	<ul style="list-style-type: none">In all cases. The settings specified must be used for Web TimeSheet installation to be successful.	page 13
	Configuring an Oracle schema	<ul style="list-style-type: none">If you are using a new database for Web TimeSheet (either when installing or when moving data to a new database during an upgrade)	page 14
	Ensuring Oracle Data Provider (ODP) connectivity	<ul style="list-style-type: none">If you are using a new database for Web TimeSheet (either when installing or when moving data to a new database during an upgrade), ANDIf you are using Windows	page 15
	Installing the ODP.NET driver	<ul style="list-style-type: none">If you do not yet have ODP.NET 2.0 installed	page 16

Configuring SQL Server Authentication

If you are using a SQL Server database, and:

- You are installing or upgrading Web TimeSheet using an existing SQL Server instance, and
- You connect to this instance using a login name and password specific to SQL Server (rather than using Windows authentication).

then configure SQL Server as follows:

1. Open the **SQL Server Enterprise Manager** from the **Start** menu.

2. Find the local server in the directory tree.
3. Right-click on the local server, and select **Properties**. A **Properties** box displays.
4. Select the **Security** tab.
5. Under the **Authentication** heading:
 - If you are using SQL 2000, select the **SQL Server and Windows** option.
 - If you are using SQL 2005, select the **Mixed Authentication** option.



6. Select **OK**.

Managing your SQL Server database

You can use SQL Server Management Studio Express to manage your SQL Server database. Download it at: <http://www.microsoft.com/downloads/details.aspx?FamilyId=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en> <http://www.microsoft.com/downloads/details.aspx?FamilyId=C243A5AE-4BD1-4E3D-94B8-5A0F62BF7796&displaylang=en>.

Ensuring Settings for Unicode Character Sets are Correct in Oracle

Before you can successfully upgrade or install Web TimeSheet on Oracle, you must set the **National Character Set** to **AL16UTF16**.

If you plan to support multiple language scripts, you should set the Database Character Set to **Use Unicode (AL32UTF8)**.

Selecting Unicode Character Sets in a new Database

If you are creating a new database, you need to specify the correct Unicode character sets when you create the database.

Selecting Character Sets Using the Database Configuration Assistant

To specify Unicode Character Sets using the Database Configuration Assistant:

1. Follow the wizard until you reach the **Initialization Parameters** page.
2. Select the **Character Sets** tab.
3. In the **National Character Set** field, select **AL16UTF16**.
4. If you want to support multiple language scripts, select **Use Unicode (AL32UTF8)** for the **Database Character Set**.

Selecting Character Sets Using SQL Scripts

When you create your database using scripts, your script should look similar to that shown below.

```
CREATE DATABASE sample
CONTROLFILE REUSE
LOGFILE
GROUP 1 ('diskx:log1.log', 'disky:log1.log') SIZE 50K,
GROUP 2 ('diskx:log2.log', 'disky:log2.log') SIZE 50K
MAXLOGFILES 5
MAXLOGHISTORY 100
MAXDATAFILES 10
MAXINSTANCES 2
ARCHIVELOG
CHARACTER SET AL32UTF8
NATIONAL CHARACTER SET AL16UTF16
DATAFILE
'disk1:df1.dbf' AUTOEXTEND ON,
'disk2:df2.dbf' AUTOEXTEND ON NEXT 10M MAXSIZE UNLIMITED
DEFAULT TEMPORARY TABLESPACE temp_ts
UNDO TABLESPACE undo_ts
SET TIME_ZONE = '+02:00';
```

Modifying Unicode Character Sets in an Existing Database

To modify Unicode character sets in an existing database:

1. Shut down the database, using either a `SHUTDOWN IMMEDIATE` or a `SHUTDOWN NORMAL` statement.
2. Do a full backup of the database because the `ALTER DATABASE CHARACTER SET` statement cannot be rolled back.
3. Complete the statements shown in the figure below.

```
STARTUP MOUNT;
ALTER SYSTEM ENABLE RESTRICTED SESSION;
ALTER SYSTEM SET JOB_QUEUE_PROCESSES=0;
ALTER SYSTEM SET AQ_TM_PROCESSES=0;
ALTER DATABASE OPEN;
ALTER NATIONAL CHARACTER SET AL16 UTF16;
ALTER DATABASE CHARACTER SET AL32UTF8;
SHUTDOWN IMMEDIATE; -- or SHUTDOWN NORMAL;
STARTUP;
```

Configuring an Oracle Schema

You will have to configure an Oracle schema if you are:

- Installing Web TimeSheet on Oracle, or
- Moving your data to a different Oracle database during a Web TimeSheet upgrade. If you are upgrading in place, an Oracle schema already exists, so you do not need to configure a new one.

You can choose to either:

- Create a new schema (refer to [page 15](#))
- Use an existing schema (refer to [page 15](#)).

Creating a New Schema

To create a new Oracle schema for use with Web TimeSheet:

1. Install Oracle Client Tools (minimum version 10g release 2) on the web server where you will be installing Web TimeSheet. Restart the server after the installation.
2. Sign into Oracle\OraHomexx\Application Development\SQL Plus using the default login (from the database you set up on your server):

```
Username:      <System>
Password:     <Manager>
Host String:   <SID or Global database name>
```

The SQL> prompt will be displayed.

3. To create a new user, at the SQL> prompt enter:


```
create user <user name> identified by <password>;
```
4. To save the new user, select the **Enter** key on your keyboard. Oracle will notify you and return you to the SQL> prompt when the user is created.
5. To provide the schema with connect and resource permissions, which are required to install the Oracle version of Web TimeSheet, at the SQL> prompt enter:


```
grant connect, resource to <user name>;
```
6. Select the **Enter** key on your keyboard. *Grant Succeeded* will display.
7. If you are using Oracle 9, at the SQL> prompt, enter:


```
grant query rewrite to <user name>;
```
8. If you are using Oracle 10 or higher, at the SQL> prompt, enter:


```
grant create view to <user name>;
```
9. Select the **Enter** key on your keyboard. *Grant Succeeded* will display.

Using an Existing Schema

If you already have a schema set up for Web TimeSheet and want to use it again:

1. Ensure Oracle Client Tools (minimum version 10g release 2) is installed on the web server where you will be installing Web TimeSheet.
2. Sign into Oracle through SQL Plus.
3. Delete all the tables, indexes, foreign keys, views, and sequences.

Ensuring Oracle Data Provider Connectivity

To prevent Oracle Data Provider (ODP) connection problems, all Oracle users using Windows must make a small alteration to their `sqlnet.ora` file. To do this:

1. Open the `sqlnet.ora` file in a text editor.

This file is located in your Oracle . . . \network\admin folder (typically located in the Oracle folder, in your Oracle home folder). If you cannot find the file, create one as a text file saved at this location.

2. Look for the line: `SQLNET.AUTHENTICATION_SERVICES= (NONE)`.
3. If you:
 - Cannot find the line, add it as a new line anywhere in the document.
 - Find the line `SQLNET.AUTHENTICATION_SERVICES= (NTS)` instead, change the `(NTS)` to `(NONE)`.
4. Save the file.

Installing the ODP.NET Driver

The Oracle Data Provider for .NET (ODP.NET) 2.0 driver is required for those using an Oracle database with Web TimeSheet. If you already have ODP.NET 2.0 installed on your server, when you install or upgrade Web TimeSheet, that driver will be detected and used automatically.

If you do not have ODP.NET 2.0 installed, after you select the Oracle option during installation or upgrade, a message will display prompting you to install ODP.NET 2.0 before proceeding with the Web TimeSheet installation. If you receive this message:

1. Exit the Web TimeSheet installation.
2. Download the ODP.NET 2.0 driver from www.oracle.com/technology/software/tech/windows/odp-net/index.html.
3. Install ODP.NET 2.0 on the server.
4. Restart Web TimeSheet installation.

CHAPTER 4

Installing IIS

⚠ As of Web TimeSheet version 8.24, IIS is required and is installed automatically
Therefore, this chapter only applies to those installing a pre-8.24 version of Web TimeSheet on IIS.

When installing the full version of Web TimeSheet, you can choose to either install using an Internet Information Services (IIS) web server or using Replicon's web server (provided with Web TimeSheet).

If you are using an IIS server, you must ensure IIS is installed before installing Web TimeSheet. The sections that follow provide information on installing IIS on Windows Server 2003 and 2008.

📄 The required IIS components outlined below are minimum requirements. Your installation may contain additional components, which may be retained.

Installing IIS on Windows Server 2008

To install the required IIS components on Windows Server 2008:

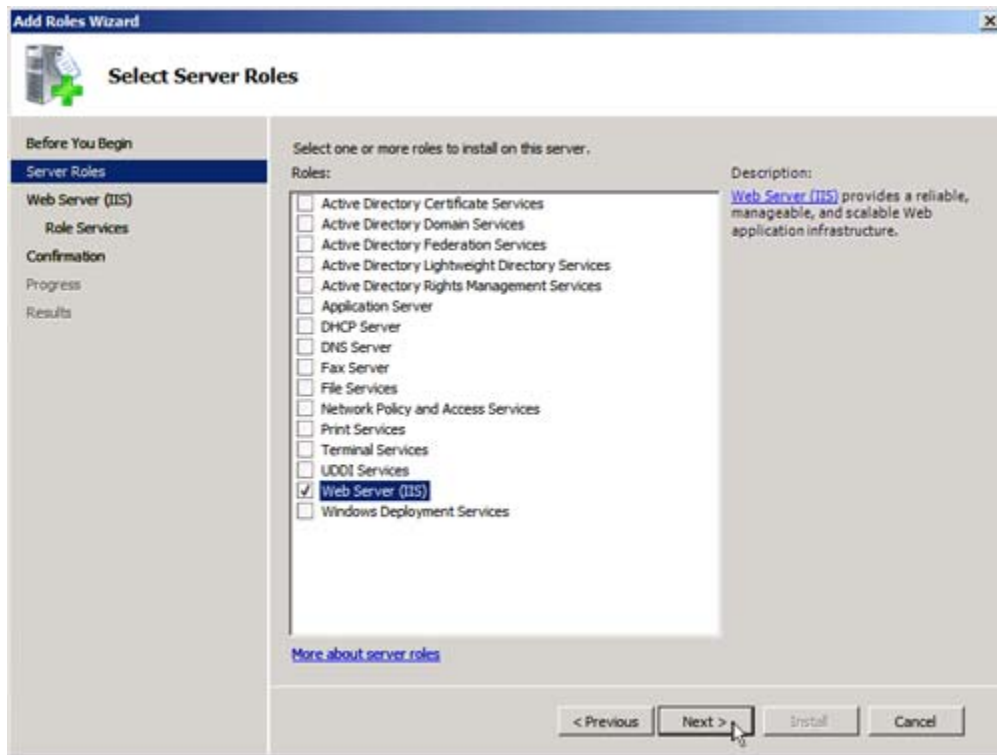
1. In the Windows **Control Panel**, select **Programs [and Features] > Turn Windows features on or off**.
2. In the **Server Manager** window that displays, select **Roles** in the left pane.
3. Select **Add Roles** in the **Roles Summary** section.



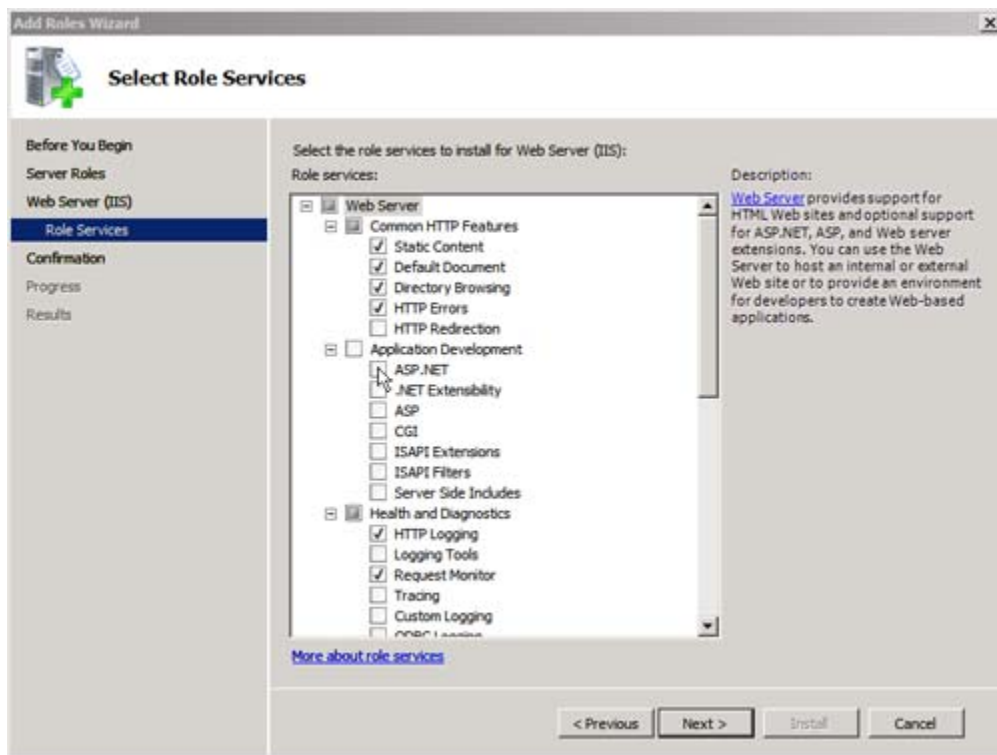
The **Add Roles Wizard** displays.

4. Select **Next** if the **Before You Begin** page displays.

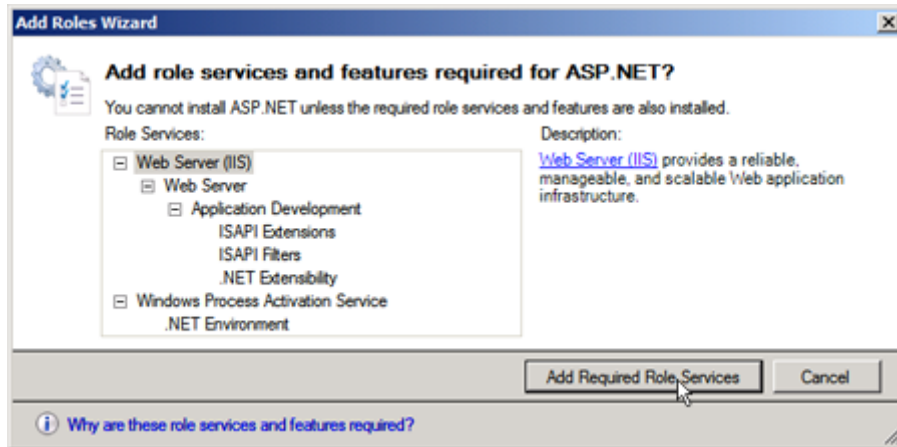
5. In the **Select Server Roles** page, enable **Web Server (IIS)** and select **Next**.



6. Select **Next** in the **Web Server (IIS)** information page.
7. In the **Select Role Services** page, enable **ASP.NET**.



8. A window may display, indicating that additional role services and features are required to support ASP.NET. Select **Add Required Role Services**.



You will be returned to the **Select Role Services** page and the related role services will be automatically enabled.

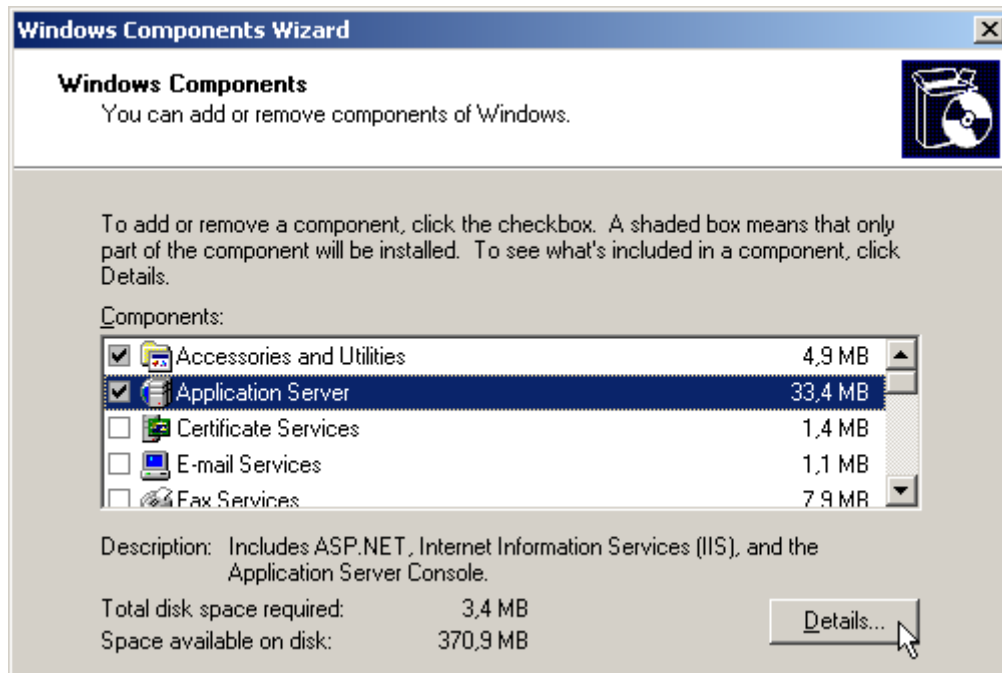
9. If you are going to use CGI with Web TimeSheet, enable **CGI** under **Application Development**. (If you are using ISAPI, the ISAPI role services are automatically enabled with ASP.NET.)
10. If you wish to use Integrated Windows Authentication, enable **Windows Authentication** under **Security**, and then select the **Next** button.
11. In the **Confirm Installation Selections** page, review the enabled options and select **Install**.
The IIS components you selected will install.
12. In the **Installation Results** page, select the **Close** button.

Installing IIS on Windows Server 2003

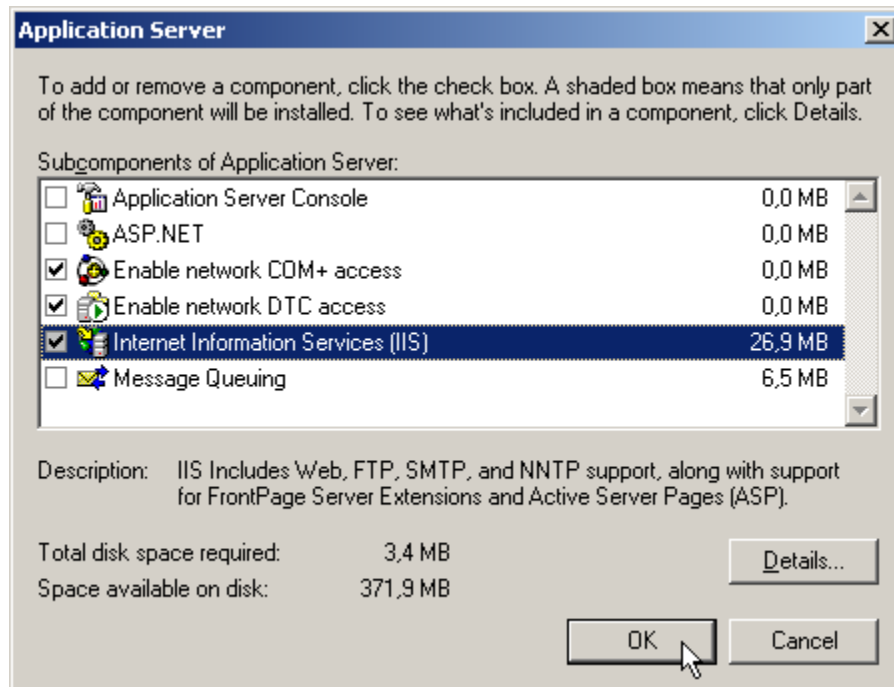
To install IIS on Windows Server 2003:

1. In the Windows **Control Panel**, select **Add or Remove Programs**.
2. In the **Add or Remove Programs** window that displays, select **Add/Remove Windows Components** from the left side.

3. In the **Windows Components Wizard** that displays, select **Application Server** from the list of components and click the **Details** button.



4. In the **Application Server** window, enable **Internet Information Services (IIS)** and select **OK**.



5. Select **Next**.
6. Once the components are installed, select **Finish**.

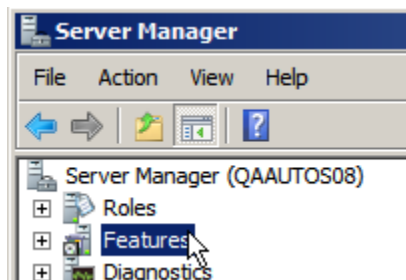
Installing Microsoft Message Queuing

Microsoft Message Queuing is required on Web TimeSheet servers, as of Web TimeSheet version 8.22. Refer to the sections below for information on installing this program on Windows Server 2003 and 2008.

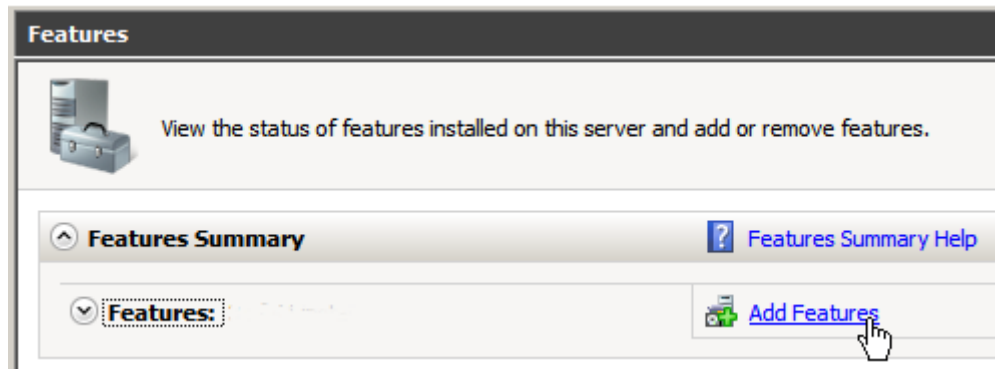
Installing Message Queuing on Windows Server 2008

To install Message Queuing on Windows Server 2008:

1. Open the **Server Manager** (located under **Administrative Tools**).
2. Click **Features**.



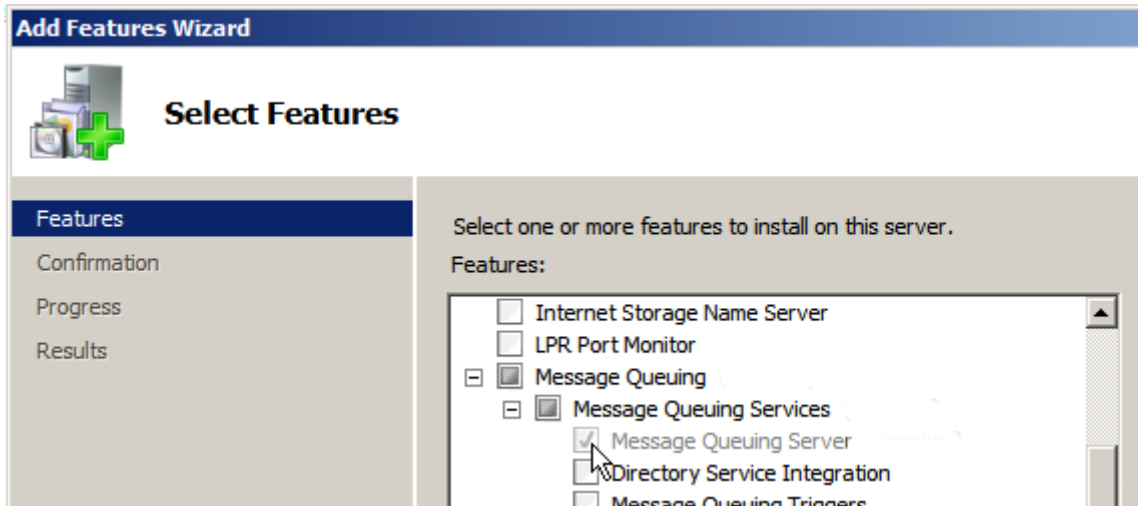
3. On the right, under **Features Summary**, click **Add Features**.



A **Select Features** window displays.

4. Find **Message Queuing**, and click the \oplus icon to expand that section.
5. Click the \oplus icon next to **Message Queuing Services**.

6. Click the check box next to **Message Queuing Server**.



7. Click **Next**, and then click **Install**.



Installing Message Queuing on Server 2003

To install Message Queuing on Windows Server 2003:

1. Open the **Control Panel**.



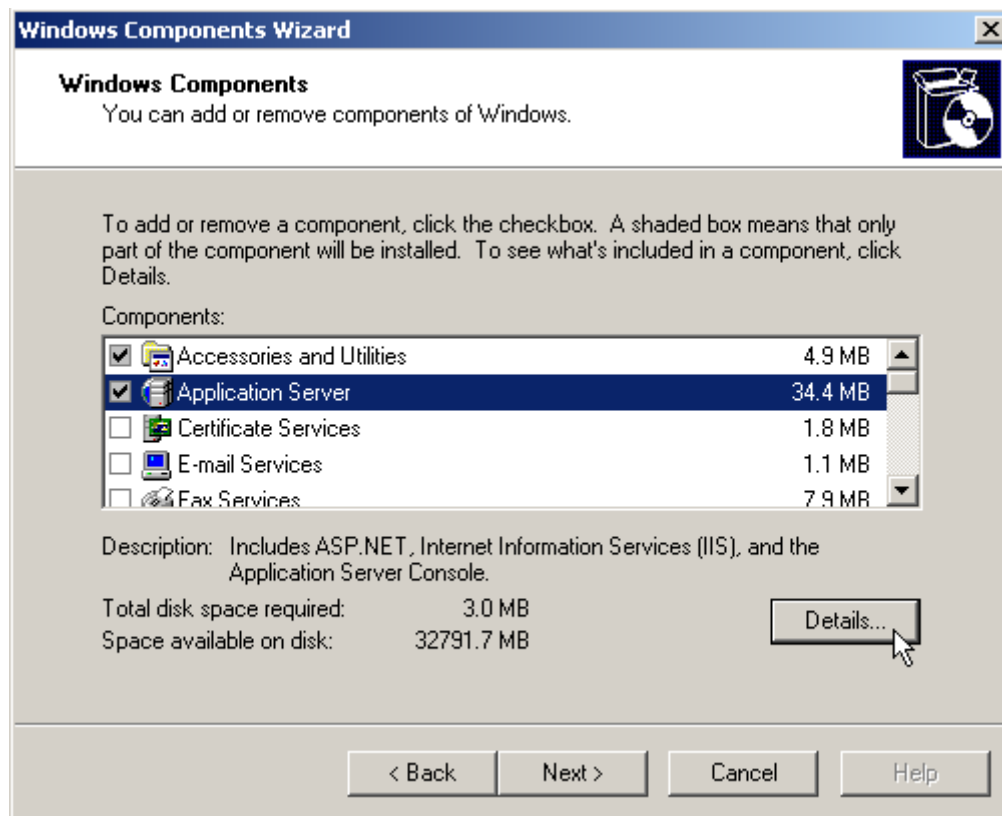
2. Click **Add Remove Programs**.



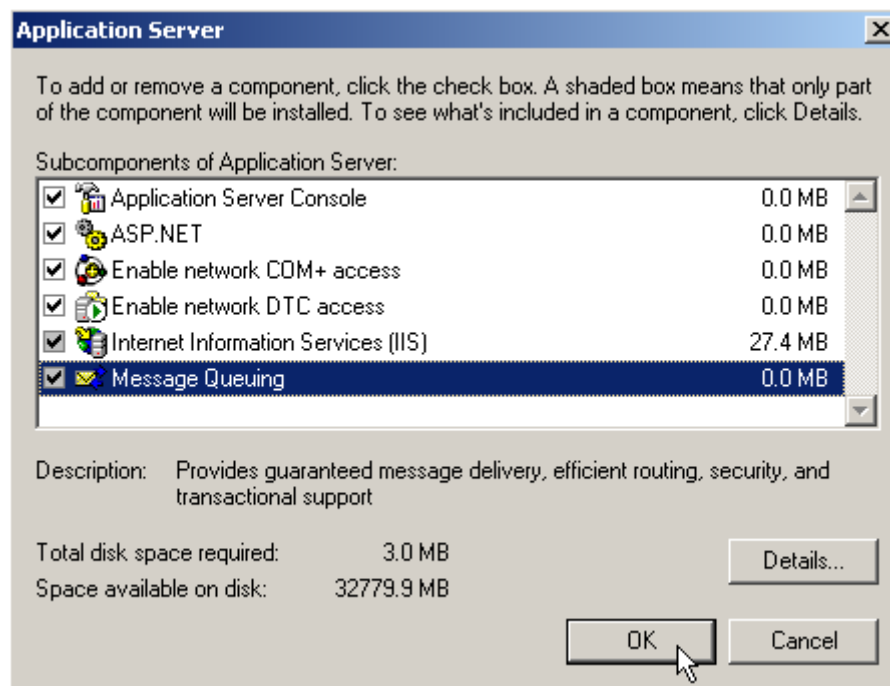
3. From the left menu, select **Add Windows Components**.



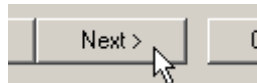
4. Select **Application Server**, and then click the **Details** button.



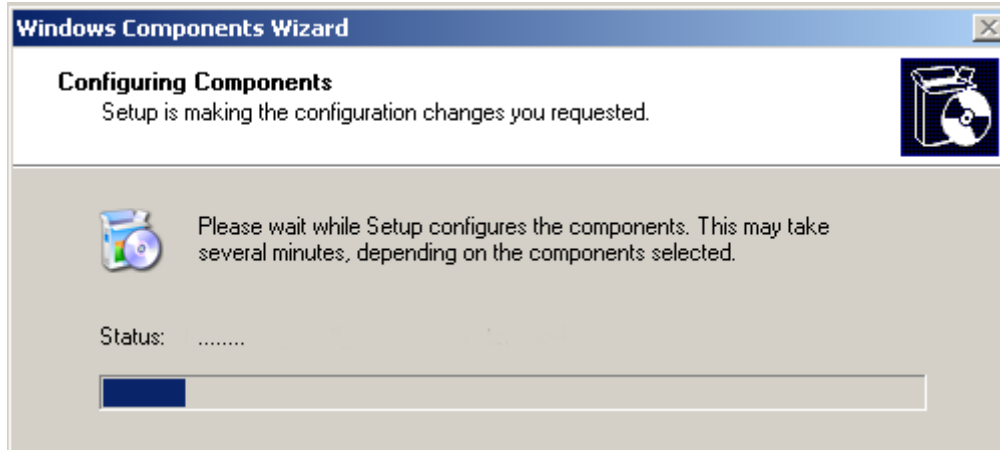
5. Enable the **Message Queuing** check box, and then click the **OK** button.



6. Select **Next**.




An installation progress bar will display.



7. Click **Finish**.



Installing or Upgrading Web TimeSheet

 **In 64-bit systems, Web TimeSheet requires that IIS be run in 32-bit compatibility mode**
The Web TimeSheet installer will automatically set IIS to 32-bit compatibility mode during installation, if it is required. In IIS 7.0 this setting applies to Web TimeSheet's application pool only.


In IIS 6.0, 32-bit compatibility is a system-wide setting, and may affect other applications installed on your server

If you encounter problems with other applications due to this automatically changed setting and need to uninstall, Web TimeSheet will not automatically disable 32-bit compatibility. Refer to X for instructions on how to revert this setting manually.

 **If you use IIS and are upgrading onto a new server, your URL will change upon upgrade to Web TimeSheet 8.24**

In most cases, your Web TimeSheet URL will remain unchanged after upgrading to version 8.24. However, if you are upgrading an IIS version of Web TimeSheet on a new machine, your existing URL cannot be automatically retained due to changes to how IIS is configured. If this issue applies to you, contact Replicon Support (refer to [Contacting Support](#) on page 6), and they will help you retain your existing URL.

The Web TimeSheet installer is wizard-based and includes easy-to-follow instructions for installing or upgrading Web TimeSheet. If you need help while using the installer, refer to the information in this chapter.

 The SaaS (Replicon-hosted) version of Web TimeSheet is upgraded by Replicon.

To upgrade Web TimeSheet:

A. Prepare to Install or Upgrade

- **If you are upgrading, review the *Web TimeSheet Release Notes*** to ensure that any changes or new features are compatible with how your system is currently configured and used.
Release notes for versions of Web TimeSheet released in the past six months are available at: <http://www.replicon.com/support/web-timesheet-release-notes.aspx>.
- **If you are upgrading, back up your database**
Or, if you are using a SQL database, you can choose to have the Web TimeSheet installer back it up for you.
- **If you are installing a new instance of Web TimeSheet, configure your Oracle or SQL Server database**, if applicable.
Refer to the information on configuring databases in [Chapter 3, Configuring your Database prior to Installation](#) on page 12.
- **Purchase (if required) and download a full version of Web TimeSheet** from the Replicon website.
Save the executable on your local computer at a known location (such as the **Desktop**). The executable for the latest version of Web TimeSheet is available at www.replicon.com/support/updates/employee-time-tracking-software.aspx.
- **If you are installing version 8.22 or higher on a Server 2008 or Server 2008 R2 machine, check that .NET Framework 3.5 or higher is installed** before attempting to install or upgrade

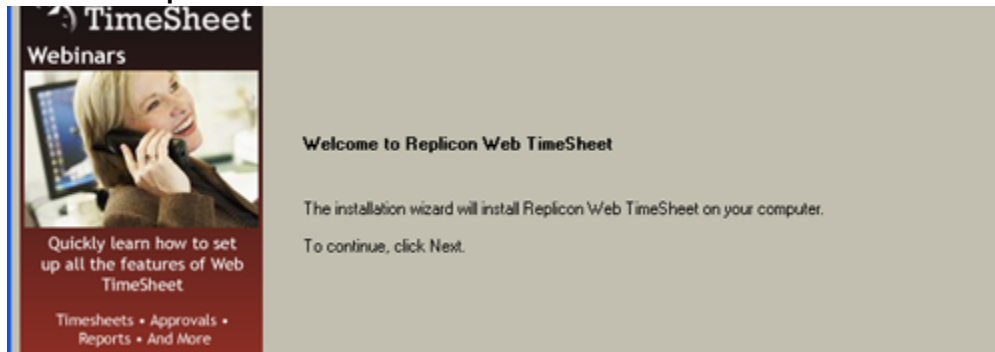
Web TimeSheet. Since .NET is included as a Windows component in Server 2008, the Web TimeSheet installer cannot automatically install this component on your machine.

To install .NET on Server 2008, open the **Server Manager**, select **Features**, click **Add Features**, enable the **.NET Framework 3.5** or higher check box, and then click **Install**.

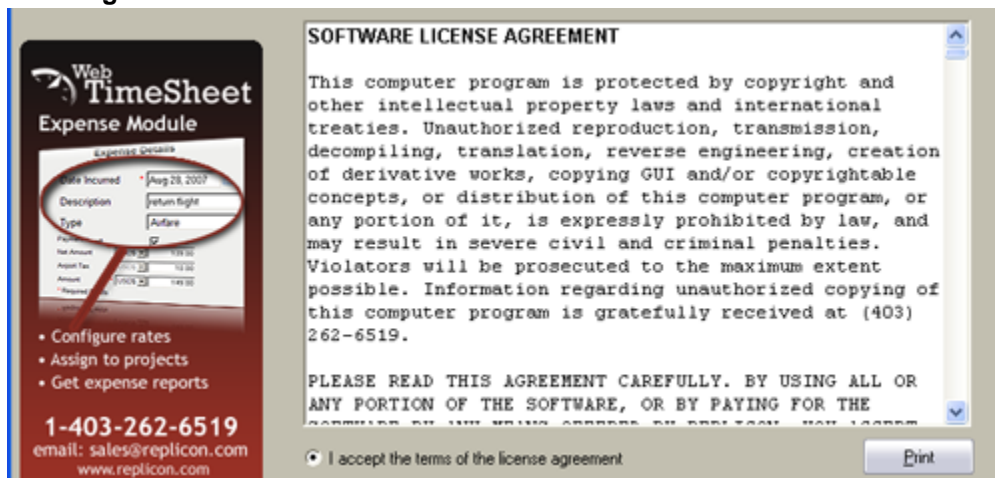
B. Begin Installation

1. Launch the Web TimeSheet installation file.
2. Follow the instructions given in the following introductory windows, selecting **Next** to progress to each new window.

Welcome to Replicon Web TimeSheet window:



License Agreement window:



Maintenance Requirement Validation window:



Before installing Web TimeSheet, the following components must be installed:

- Microsoft Windows Installer 3.1 (Download size 2.5Mb)
- Microsoft .NET 2.0 Framework (Download size 22.4Mb)
- C Runtime Library 8.0 (Download size 2.6Mb)

These components can be automatically downloaded and installed for you, provided the computer has a connection to the Internet.

Select Next to automatically download and install the above components. Select Cancel to exit the installation and manually install the components.

Once the components are installed, the computer may need to be restarted. If the components were


Web TimeSheet Expense Module

Expense Details

Date Incurred	Aug 28, 2007
Description	Return flight
Type	Airfare
Rate	07
Rate Amount	100.00
Applied Tax	10.00
Amount	110.00
Revised	110.00

- Configure rates
- Assign to projects
- Get expense reports

 This window only displays if any of the necessary components are missing from your machine.

 If you are using Windows 2000 and a message displays stating that you cannot install Web TimeSheet without the KB 835732 Security Update installed on your server, you must install the update and then restart Web TimeSheet installation. You can access the update from the Microsoft website, or from this location:

<http://download1.replicon.com/dependencies/kb835732/Windows2000-KB835732-x86-ENU.EXE>

Select Installation Type window:



Need help getting started?

Sign up for a Web TimeSheet Webinar for a walk through of the application

Web TimeSheet
1-403-262-6519
email: sales@replicon.com
www.replicon.com

Click the type of setup you prefer.

New

Select this option to install a new instance of Web TimeSheet. The application will be installed into the folder you specify below.

Upgrade

Select this option if you would like to upgrade a previously installed instance of Web TimeSheet. The installer will prompt you for information on the database to upgrade and the upgraded instance will be installed into the folder you specify below.

You can choose where you would like the Web TimeSheet files saved.

Destination Folder
C:\Program Files\Replicon Inc\Web TimeSheet

Browse...

Red annotations:
- "Select whether this is a new installation, or whether you are upgrading a previously-installed version of Web TimeSheet" with arrows pointing to the New and Upgrade radio buttons.
- "You can choose where you would like the Web TimeSheet files saved." with an arrow pointing to the Destination Folder field and the Browse... button.

If you are upgrading, your source database and license information will then be validated.

C. Validate your license

The **License Validation** window will only display:

- If this is your first time upgrading to Web TimeSheet version 8.5 or higher, or
- If you have not registered your Web TimeSheet database for automatic license checking.

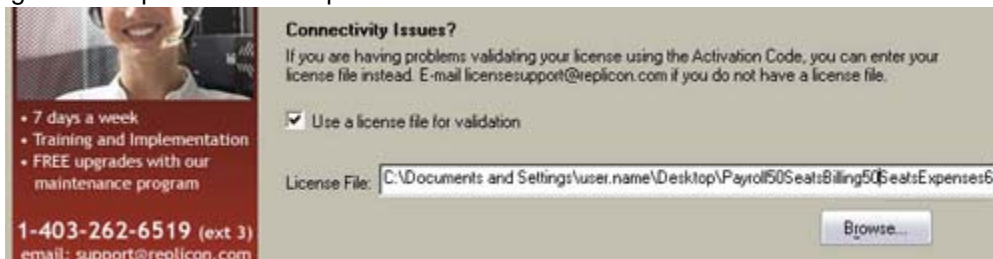
In this window:

1. Enter your **Activation Code**.



- Entering this code establishes communication between your database and Replicon, so that we can check your license information whenever you upgrade and when you choose to update your license information within Web TimeSheet.

2. If the installer has trouble connecting to your database, an error message will display, and you will be given the option to enter a path to a valid license file.



D. Select the Destination database

This step only applies if you are installing a **NEW** version of Web TimeSheet. If you are **UPGRADING**, your existing database will be used, so you can skip to [E. If you are installing a pre-8.24 version of Web TimeSheet, choose the web server you want to use](#) on page 30.

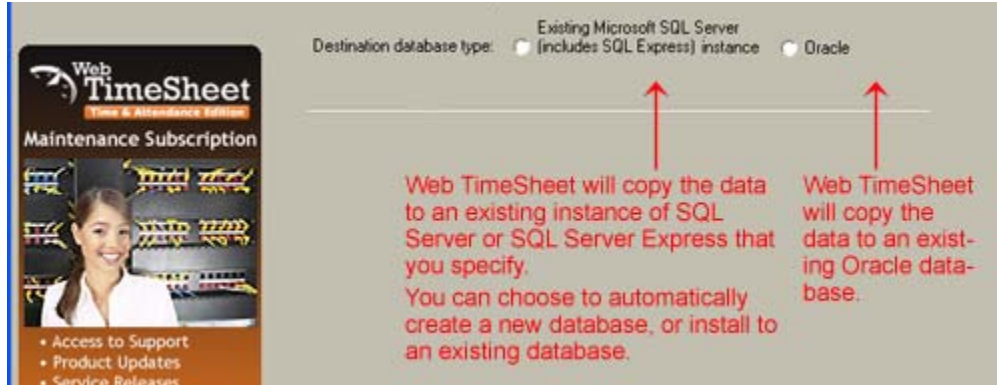
Contact Replicon Support if:

- You are upgrading and you want to move your data to a different database, or
- You are upgrading from Access, and you want to move your data to an existing instance of SQL Server Express (it will be moved to a new instance by default).

They will provide you with information on how to proceed.

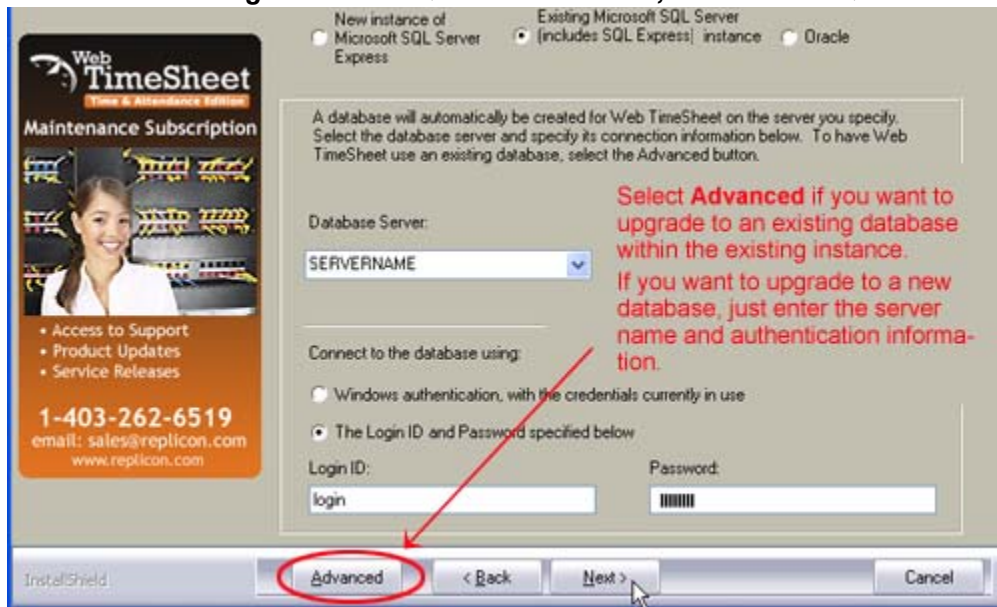
From the **Select Destination Database Server** window:

1. Select the type of database you would like your data saved to.

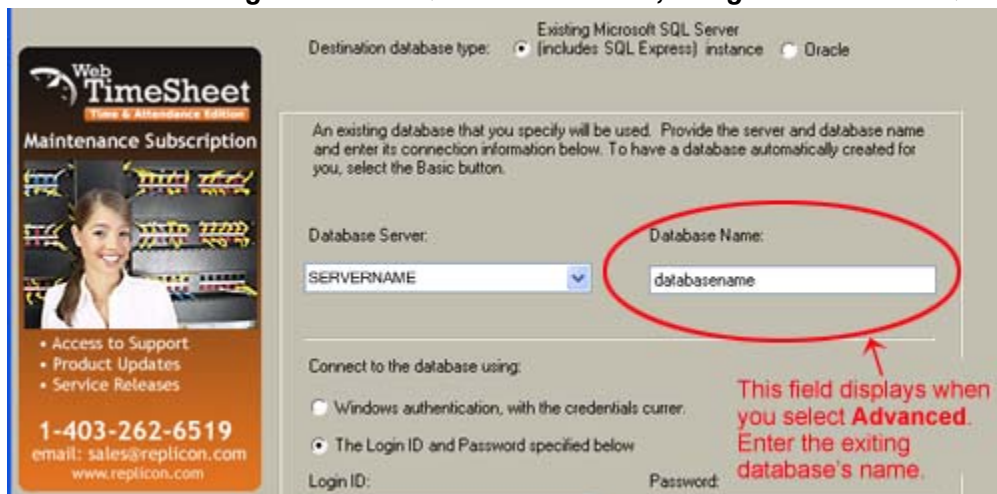


2. Enter the name, location, and authentication information for that database, as applicable.

- **For an existing Microsoft SQL Server instance, and a NEW SQL database:**



- **For an existing Microsoft SQL Server instance, using an EXISTING SQL database:**



- **For an existing Oracle database:**

Destination database type: Existing Microsoft SQL Server (includes SQL Express) instance Oracle

Please enter the following required information to connect to an existing Oracle 9i (or higher) database:

Database User Name:

Database User Password:

Oracle Host:

☐ If you are using an Oracle database, you must have the ODP.NET 2.0 driver installed before you can install Web TimeSheet. For more information, refer to [Chapter 3, Installing the ODP.NET Driver](#) on page 16.

E. If you are installing a pre-8.24 version of Web TimeSheet, choose the web server you want to use

⚠ **As of Web TimeSheet version 8.24, the internal web server is no longer supported and IIS is required**

Therefore, this step only applies to those installing a pre-8.24 version of Web TimeSheet.

1. Select the web server. The **Internet Information Services (IIS)** option is only available if IIS is installed. For information on installing IIS, see [Chapter 4, Installing IIS](#) on page 17.

Since Web TimeSheet is a web application, a web server is required. Please select from the options below. If you wish to use Integrated Windows Authentication with Web TimeSheet, you must select the Internet Information Services (IIS) option.

Web TimeSheet Web Server

Internet Information Services (IIS)

If you select IIS, complete these options

Web Server:

When using IIS, you can choose whether users are automatically logged in to Web TimeSheet. Select a log in authentication method below.

Non-integrated authentication - Users log into the application via a Web TimeSheet Login page

Integrated Windows Authentication - Users are automatically logged in to the application based on their Windows credentials.

If you choose Integrated Windows Authentication, the administrator account will be created based on the Windows account currently in use.

2. Configure your web server, if required.

For example, your IIS server may require post-installation configuration:

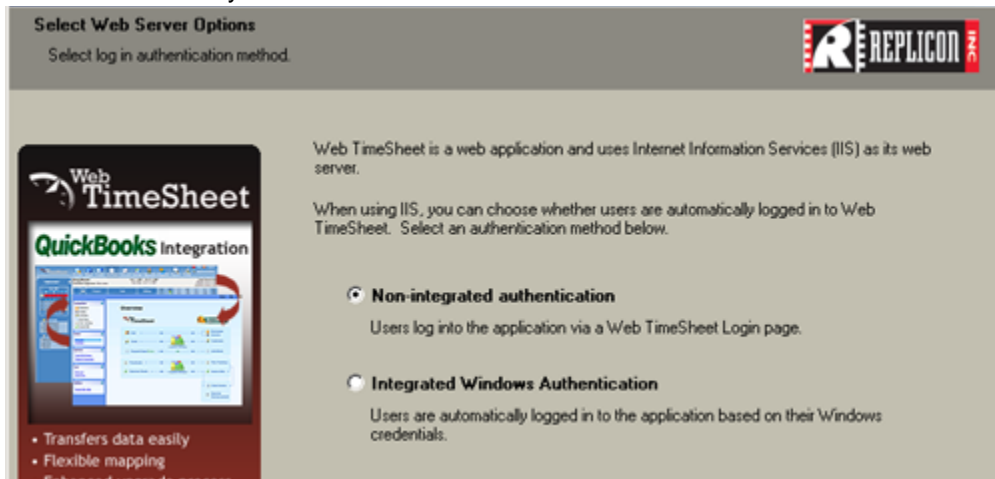
- To block the transmission of plain text (unencrypted) passwords. For more information, refer to [Ensuring Web TimeSheet Security](#) on page 45.
- If the installer prompts you to allow Web TimeSheet to use CGI and HTML virtual directories that exist on your computer, but you do not want these directories to be used. To do this:
 - i. Select the **Web TimeSheet Web Server** option

- ii. Configure IIS manually after installation. For information on this, refer to [Manually Configuring Internet Information Services \(IIS\)](#) on page 36.

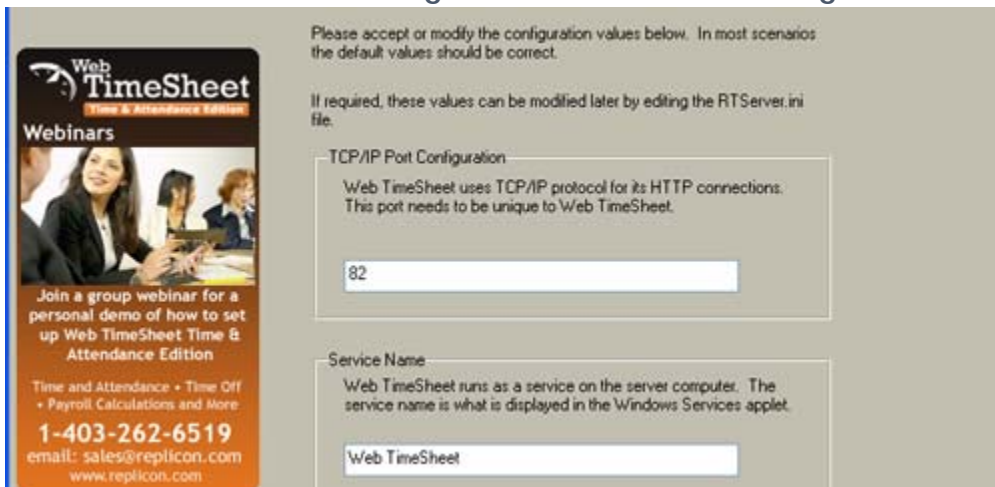
For more information on configuring your web server, refer to [Chapter 7, Configuring the Server after Installation](#) on page 34.


F. If you are installing version 8.24 or higher, choose your authentication method


If you choose to use Integrated Windows Authentication, the administrator account will be created based on the Windows account currently in use.



G. Ensure that the TCP/IP Port Config and Service Name settings are corr



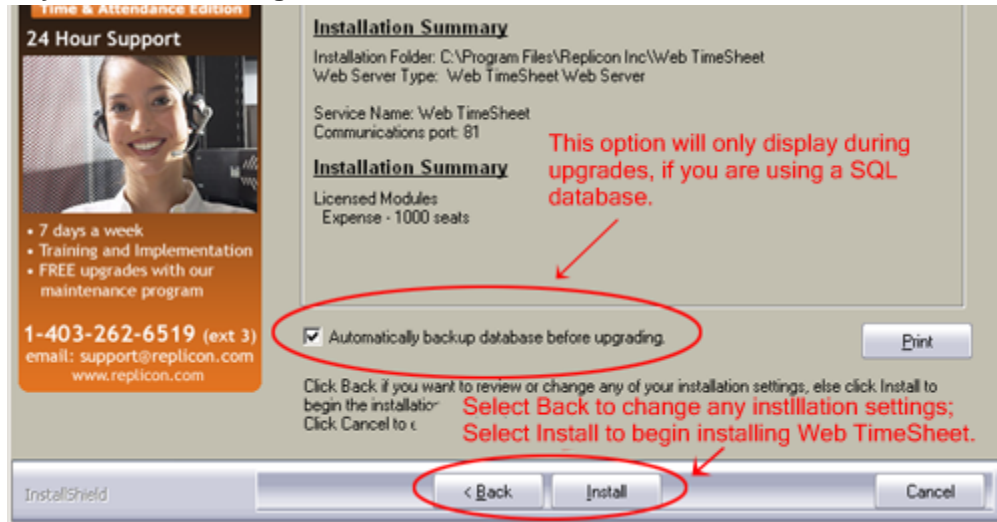
 As of Web TimeSheet version 8.24, the installer automatically chooses the port configuration

 The first available port, starting from port 80, displays by default. In most cases, this setting will not require modification. However, if your web server is not on port that displays, enter the correct port before selecting **Next**.

H. Complete the installation

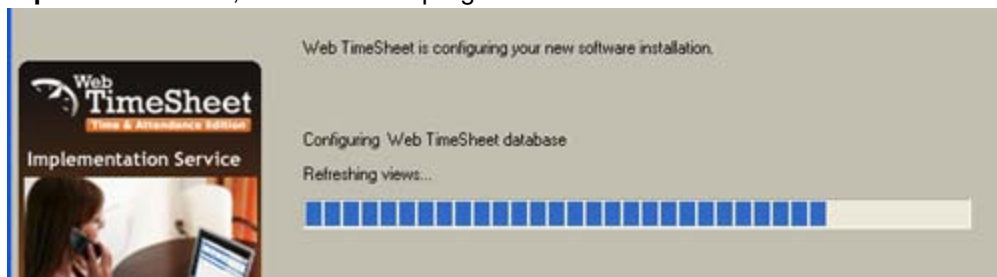
Progress through the following windows.

Ready to Install the Program window

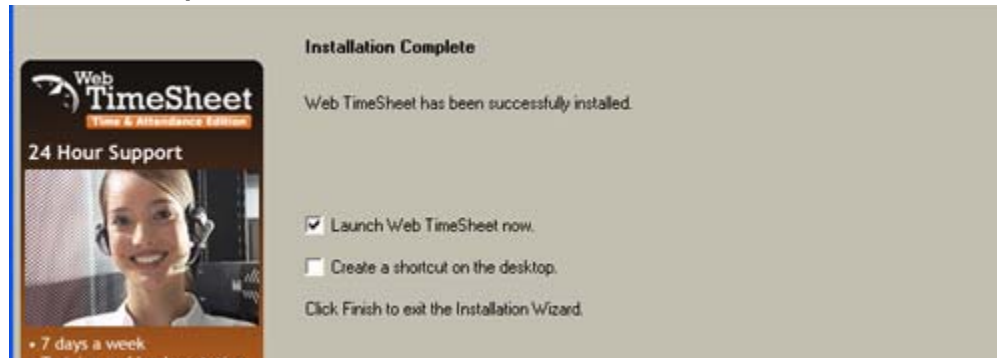


- ☐ If you enable the backup database option, a copy of your database will be saved at C:\Program Files\Replicon Inc\Web TimeSheet\Database Backup*<database-Name.bak>*.

Setup Status window, that tracks the progress of the installation.



Installation Complete window.



Troubleshooting issues encountered during installation

Any errors that occur during installation are logged in a *Web TimeSheet Install.log* file located at:

...Local Settings\Application Data\Replicon Inc

This is a hidden folder, so you will have to enable the **Show hidden files and folders** option in your operating system at **Tools > Folder Options...** > **View** to see it.

You can use information logged in this file, with or without assistance from Replicon Support, to identify and resolve any installation issues.

Disabling 32-Bit Compatibility in IIS 6.0 when Uninstalling Web TimeSheet


In 64-bit systems, supported as of version 8.24, Web TimeSheet requires that IIS be run in 32-bit compatibility mode. The Web TimeSheet installer will automatically set IIS to 32-bit compatibility mode during installation, if it is required.

In IIS 6.0, 32-bit compatibility is a system-wide setting, and may affect other applications installed on your server. If you encounter problems with other applications due to this automatically changed setting and need to uninstall, Web TimeSheet will not automatically disable 32-bit compatibility.

To manually disable this setting for your system:

1. Open a command prompt.
2. Navigate to the `<systemdrive>\inetpub\AdminScripts` directory.
3. Type the following command:
`cscript.exe adsutil.vbs set W3SVC/AppPools/Enable32BitAppOnWin64 "false"`
4. Press *Enter*.

Configuring the Server after Installation

 **In Web TimeSheet version 8.24 and higher, the internal web server is no longer supported, and ISAPI and CGI configurations are no longer used with IIS**

Therefore, any information in this chapter that is related to the internal web server, or ISAPI and CGI configurations applies to Web TimeSheet version 8.23 and lower only.

Understanding the Available Server Configurations

Web TimeSheet supports the following configurations for the server:

- Internal web server
- IIS web server using ISAPI
- IIS web server using CGI

See [Appendix A, Glossary](#) on page 50 for information on these terms.

When installing the full version, you can choose which web server you want to use. If you choose IIS, ISAPI will be used by default. If you are upgrading a version installed prior to 8.2, CGI is used for IIS web server installations. The trial version uses the internal web server.

You can change the configuration after installation, including:

- If you are using the internal web server, you can switch to IIS (with ISAPI) following the details given in [Switching from the Internal Web Server to an IIS Server](#) on page 35.
- If you installed a previous version of Web TimeSheet using IIS, you can switch from CGI to ISAPI following the steps outlined in [Switching from CGI to ISAPI](#) on page 42.

Determining which Configuration is in Use

To determine which of the above configurations is in use, you can check the format of the Web TimeSheet, as explained in [Understanding the Web TimeSheet Website URL](#) on page 47. Alternately, you can check the `rtserver.ini` file on the Web TimeSheet server as follows:

1. Open the `rtserver.ini` file, which is typically found in `C:\Program Files\Replicon Inc\Web TimeSheet\APP`.
2. Locate the line starting with `preload`.
3. If the next line:
 - Starts with `cgivirtualpath`, an IIS web server is in use.
 - Is `[Reception]`, the internal web server is in use.
4. If IIS is in use, check the last section of the `cgivirtualpath` line. If the line ends with:
 - `rt.exe/`, CGI is in use with IIS.
 - `rt.dll/`, ISAPI is in use with IIS.

Accessing the IIS Manager

To access the IIS Manager, which is used to configure settings for the Web TimeSheet IIS web server:

1. Open the Windows **Control Panel**.
2. Select **Administrative Tools > Internet Information Services**.

Determining which Version of IIS is in Use

The version of IIS being used depends on the operating system, as follows.

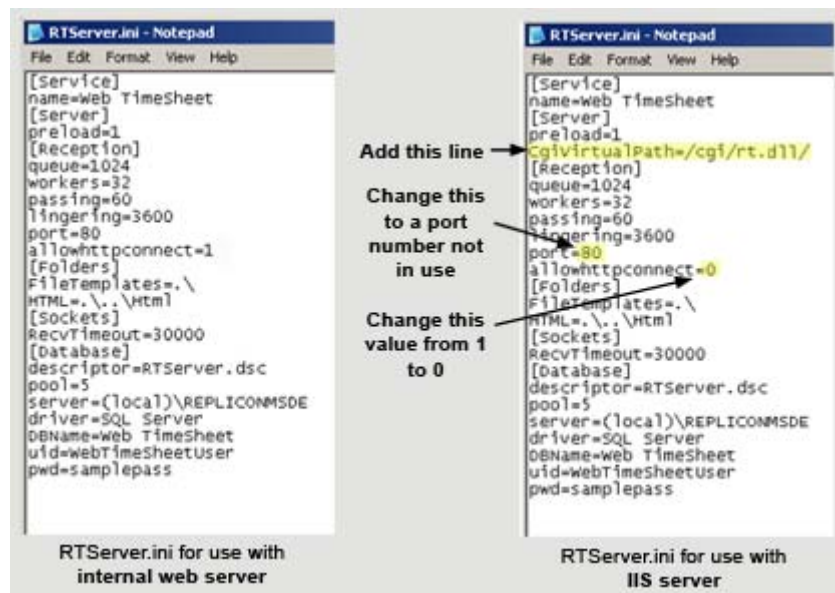
Operating System	IIS Version
Windows Server 2008	7.0
Windows Vista	7.0
Windows Server 2003	6.0
Windows XP Professional	5.1
Windows 2000	5.0

You can confirm the version of IIS by selecting **About Internet Information Services** from the IIS Manager **Help** menu.

Switching from the Internal Web Server to an IIS Server

If you have installed Web TimeSheet on the internal web server, but decide to switch to using an Internet Information Services (IIS) server, you must:


1. Ensure IIS is installed, as detailed in [Chapter 4, Installing IIS](#) on page 17.
2. Make changes to the `rtserver.ini` file:
 - a. Open the `rtserver.ini` file, which is typically found in `C:\Program Files\Replicon Inc\Web TimeSheet\APP`.
 - b. Type `CgiVirtualPath=/cgi/rt.dll/` between the `preload=1` and `[Reception]` lines.
 - c. Change `allowhttpconnect=1` to `allowhttpconnect=0`.
 - d. Change the port number to that of any port not in use.



3. Configure IIS and create two new virtual directories, as detailed in [Manually Configuring Internet Information Services \(IIS\)](#) below.

Manually Configuring Internet Information Services (IIS)


If you choose to use an Internet Information Services (IIS) server, Web TimeSheet requires Internet Information Services (IIS) to be installed and configured on your computer. When you select the IIS web server option during installation, Web TimeSheet will automatically configure that server correctly. You can, however, choose to configure the IIS web server yourself once installation is complete. In this case, you would have to elect to use the Web TimeSheet Web Server during the installation process.

 Additional steps are required if you choose to change from using the internal web server to using an IIS server, as detailed in [Switching from the Internal Web Server to an IIS Server](#) on page 35.

To configure IIS, you must:

1. Set up a relay in IIS, if using Windows Server 2003.
2. Create the Web TimeSheet website.
3. Create virtual directories.
4. Restart the Web TimeSheet service.
5. Provide HTML access to Web TimeSheet.
6. Configure IIS application pools.

These procedures are described below.

 You must be a member of the administrator group to perform the following procedures.

Setting up IIS on Windows Server 2003

When IIS is first installed on Windows Server 2003, it is locked down (that is, only request handling for static web pages is enabled). Before you create the virtual directories for Web TimeSheet, you must enable the Web TimeSheet relay.

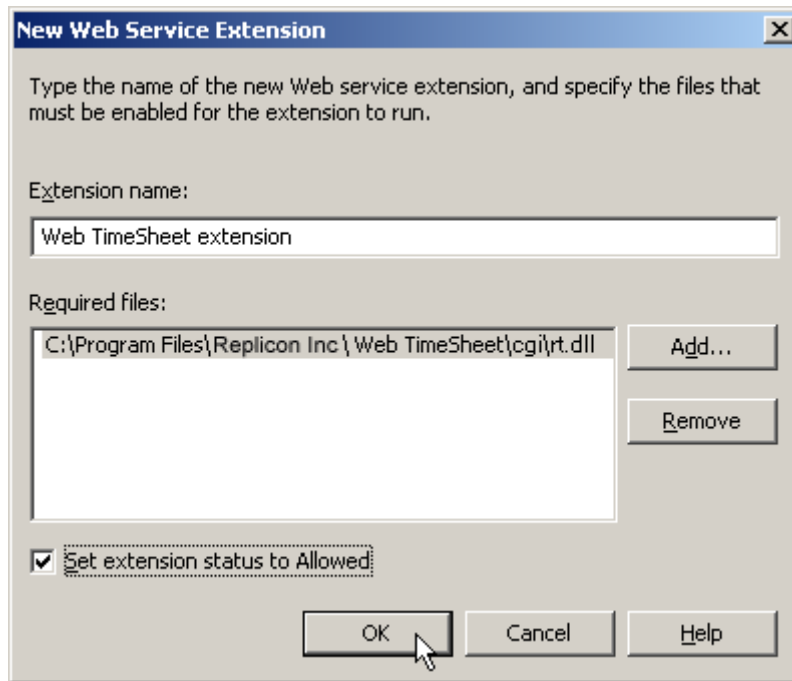
To enable the Web TimeSheet CGI relay in Windows Server 2003:

1. Run the IIS Manager.
2. In IIS Manager, select the **Web Service Extensions** folder.
3. In the details pane, click **Add a new Web service extension**.
4. In the **Extension name** box, enter a name for the new extension, for example *Web TimeSheet extension*.
5. Select **Add**.

In the **Required files** box, enter (or browse to) the path for `rt.dll`, as follows:

```
C:\Program Files\Replicon Inc\Web TimeSheet\cgi\rt.dll
```

6. Enable the **Set extension status to Allowed** check box.



7. Select **OK**.

Creating the Web TimeSheet Website

If you do not have a website in IIS that Web TimeSheet can use, you must create one. The sections that follow detail the steps to complete this in each operating system.

Creating the Website in Windows Server 2008 or Vista (IIS 7.0)

To create a Web TimeSheet website in Windows Server 2008 or Windows Vista, which use IIS 7.0:

1. Create an empty directory on the hard drive of the server that can be used as the root directory of the Web TimeSheet website.
2. Run the IIS Manager.
3. Select **[Web] Sites** from the left pane.
4. Select **Add Web Site** from the right.
5. Enter the name of the website (for example, *Web TimeSheet*) in the **Web site name** box.
6. In the **Physical path** box, browse to the empty directory you created in [Step 1](#).

7. Enter the IP address and port number for the website. These determine the URL used to access Web TimeSheet and the port number should be different from that used by Web TimeSheet to access IIS (shown in `RTServer.ini`).

The screenshot shows the 'Add Web Site' dialog box. The 'Site name' and 'Application pool' fields are both set to 'Web TimeSheet'. The 'Content Directory' section shows the 'Physical path' as 'C:\Web Sites\Web TimeSheet'. The 'Binding' section is configured with 'Type' as 'http', 'IP address' as '10.0.0.20', and 'Port' as '82'. The 'Start Web site immediately' checkbox is checked. The dialog has 'OK' and 'Cancel' buttons at the bottom right.

8. Select **OK**.

Creating the Website in Windows Server 2003 or 2000 (IIS 6.0/5.0)

To create a Web TimeSheet website in Windows Server 2003 or Windows 2000, which use IIS 6.0 and IIS 5.0 respectively:

1. Create an empty directory on the hard drive of the server that can be used as the root directory of the Web TimeSheet website.
2. Run the IIS Manager.
3. If using Windows Server 2003, in the left pane right click on the **Web Sites** folder. Alternatively, if using Windows Server 2000, right click on the name of the server where you are creating the website.
4. Point to **New**, and then select **Web Site**. The **Web Site Creation Wizard** appears.
5. Select **Next**.
6. In the **Description** box, enter the name of the new website (for example, *Web TimeSheet*), and then select **Next**.
7. Enter the IP address and port number for the website. These determine the URL used to access Web TimeSheet and the port number should be different from that used by Web TimeSheet to access IIS (shown in `RTServer.ini`). Select **Next**.

8. In the **Path** box, browse to the empty directory you created in [Step 1](#). Select **Next**.
9. Enable the **Read** permission check box, and then select **Next**.
10. Select **Finish**.

Creating the Website in Windows XP (IIS 5.1)

Windows XP only allows for one website. As a result, you must use the existing website, as follows:

1. Create an empty directory on the hard drive of the server that can be used as the root directory of the Web TimeSheet website.
2. Run the IIS Manager.
3. Right-click on the existing website, typically called *Default Web Site*, and select **Properties**.
4. In the **Web Site** tab, enter the IP address and port number for the website. These determine the URL used to access Web TimeSheet and the port number should be different from that used by Web TimeSheet to access IIS (shown in `RTServer.ini`).
5. Select the **Home Directory** tab.
6. In the **Local Path** box, browse to the empty directory you created in [Step 1](#).
7. Enable the **Read** permission check box.
8. Select **OK**.

Creating Virtual Directories

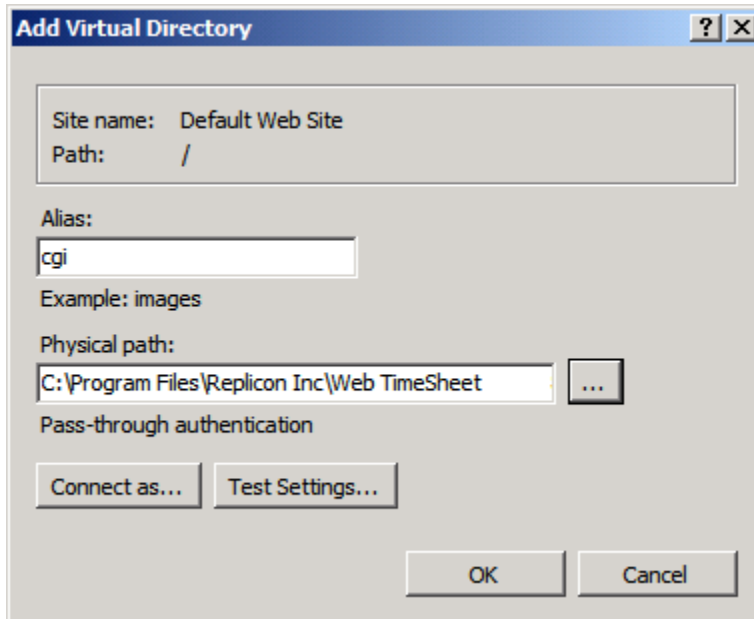
The Web TimeSheet web site requires two virtual directories, *CGI* and *HTML*. The sections that follow provide details on creating these virtual directories in each operating system.

Creating the Virtual Directories in Windows Server 2008 or Vista (IIS 7.0)

To create virtual directories in Windows Server 2008 or Windows Vista:

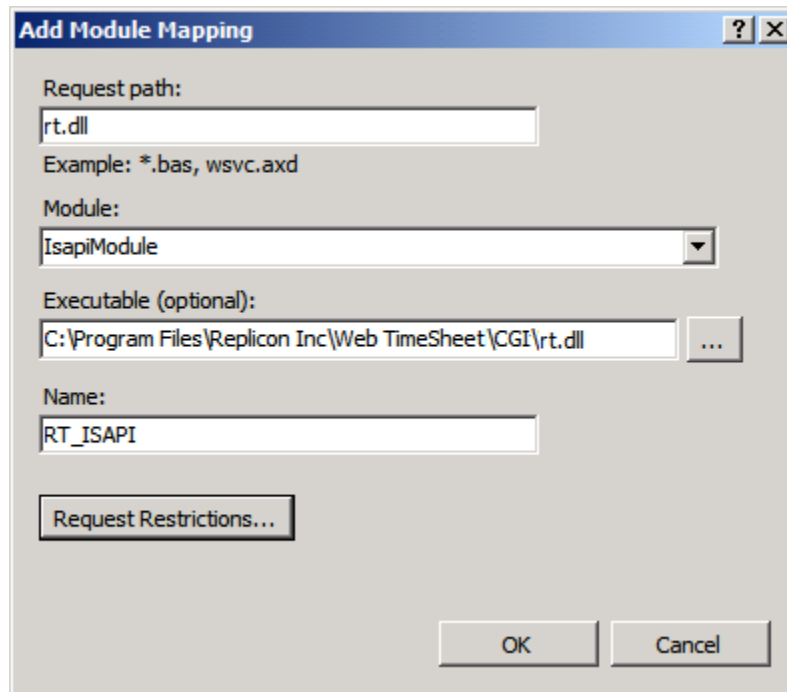
1. Run the IIS Manager.
2. Right click on the website for Web TimeSheet.
3. Select **Add Virtual Directory**.
4. In the **Alias** box, enter *CGI* as the name for the virtual directory.

5. In the **Physical path** box, browse to the `cgi` folder in the Web TimeSheet installation folder (typically `C:\Program Files\Replicon Inc\Web TimeSheet\cgi`).



6. Select **OK**. You will be returned to the main IIS Manager window.
7. Repeat [Step 3](#) through [Step 6](#) to create a virtual directory called *HTML*, and point this virtual directory to the path of the `html` folder in Web TimeSheet installation folder. Allow only **Read** access for permissions.
8. In the left pane, select the *CGI* virtual directory.
9. In the right pane, double-click on **Handler Mappings**.
10. Select **Add Module Mapping** on the right.
11. In the **Request path**, enter `rt.dll`.
12. Select *IsapiModule* for the **Module**.
13. If available, in the **Executable** box, browse to the `rt.dll` file in the Web TimeSheet installation folder (typically `C:\Program Files\Replicon Inc\Web TimeSheet\cgi`).

14. Enter a name for the mapping, such as *RT_ISAPI*.



15. Select the **Request Restrictions** button.
16. In the **Mapping** tab, enable **Invoke handler only if request is mapped to**. Ensure **File** is selected.
17. If available, select the **Access** tab and select the **Execute** option.
18. Select **OK**.
19. In the **Add Module Mapping** window, select **OK**.
20. If asked whether you want to allow the extension, select **Yes**.
21. Select the new handler mapping and choose to edit its permissions.
22. Ensure the **Execute** permission is enabled and select **OK**.

Creating the Virtual Directories in Windows Server 2003, XP, or 2000 (IIS 6.0/5.x)

To create virtual directories in Windows Server 2003, Windows XP, or Windows 2000:

1. Run the IIS Manager.
2. Right click on the website for Web TimeSheet.
3. Point to **New**, select **Virtual Directory**. The **Virtual Directory Creation Wizard** appears.
4. Select **Next**.
5. In the **Alias** box, enter *CGI* as the name for the virtual directory and select **Next**.
6. In the **Path** box, browse to the *cgi* folder in the Web TimeSheet installation folder (typically *C:\Program Files\Replicon Inc\Web TimeSheet\cgi*), and then select **Next**.
7. Enable the check boxes for the following and then select **Next**.
 - **Read**
 - **Execute**
8. Select **Finish**.

- Repeat [Step 2](#) through [Step 8](#) to create a virtual directory called *HTML*, and point this virtual directory to the path of the `html` folder in Web TimeSheet installation folder. Allow only **Read** access for permissions.
- Select **Finish**.

Providing HTML Access to Web TimeSheet

When you have created the virtual directories in IIS, you can access Web TimeSheet using the appropriate URL, as explained in [Understanding the Web TimeSheet Website URL](#) on page 47.

If you want to provide access to Web TimeSheet from your local intranet site, add HTML similar to the following in your Intranet homepage at the appropriate section:

```
<A HREF="Web_TimeSheet_URL"><IMG SRC="Web_TimeSheet_URL/html/common/webts.gif" BORDER=0>Web TimeSheet </A>
```


where:

Web_TimeSheet_URL is the Web TimeSheet URL.

Configuring IIS Application Pools

Application pools are a new feature introduced in Windows Server 2003 (IIS 6.0) and later. You may need to configure the application pools feature to allow Web TimeSheet to function correctly. By default, Web TimeSheet will run under the default application pool configured with Network Service privileges. This configuration will be adequate in many cases.

However, if you have customized your environment, Web TimeSheet may not operate under the Default Application Pool. In this case, it is suggested that you create a new Application Pool with privileges higher than Network Service, and run Web TimeSheet in this new Application Pool.

 Refer to the IIS documentation for more information on Application Pools.

Switching from CGI to ISAPI

When using an IIS web server, Web TimeSheet supports the use of CGI or ISAPI. If you have installed Web TimeSheet 8.2 or higher using IIS, Web TimeSheet will be automatically configured to use ISAPI. If you have upgraded from a previous version, CGI will be used.

To change from CGI to ISAPI after installation:

- Ensure IIS is in use. For information on converting your installation to IIS, see [Switching from the Internal Web Server to an IIS Server](#) on page 35.
- Make changes to the `rtserver.ini` file:
 - Open the `rtserver.ini` file, which is typically found in `C:\Program Files\Replicon Inc\Web TimeSheet\APP`.
 - Change `CgiVirtualPath=/cgi/rt.exe/` to `CgiVirtualPath=/cgi/rt.dll/`.
- Restart the Web TimeSheet service.
- Notify users that any bookmarks will need to be updated to use `rt.dll`, instead of `rt.exe`.
- Modify the URL used on your Intranet page (see [Appendix 7, Providing HTML Access to Web TimeSheet](#) on page 42) to use `rt.dll`.

Enabling Integrated Windows Authentication in Web TimeSheet

When using an IIS web server, you can choose to use Integrated Windows Authentication. With Integrated Windows Authentication, users are automatically logged into Web TimeSheet using their Windows login name and password.

When enabled, Integrated Windows Authentication will be used by all Web TimeSheet users; you cannot enable it for a portion of your users.

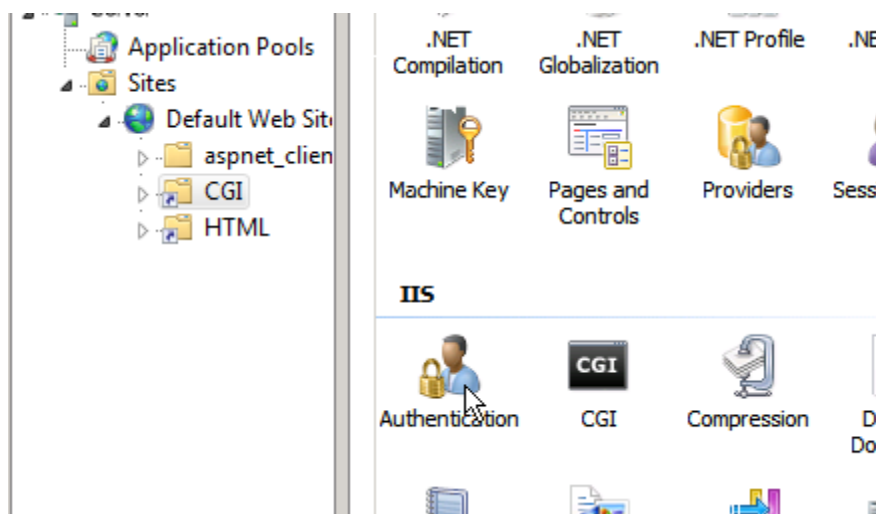
If you did not enable Integrated Windows Authentication during installation or have upgraded from a previous version, you can enable it after the fact following the steps below:

1. Ensure IIS and ISAPI are in use. If you installed a version prior to 8.2 using IIS, you will have to complete the steps in [Switching from CGI to ISAPI](#) on page 42. If you installed the internal web server, you will need to complete the steps in [Switching from the Internal Web Server to an IIS Server](#) on page 35.
2. Within Web TimeSheet, change the administrator's **Login Name** to match their Windows login name.
3. Within IIS, enable Integrated Windows Authentication and disable anonymous access for the *CGI* virtual directory. See the sections that follow for information on how to complete this in each operating system.
4. Have the Web TimeSheet administrator log in and change each user's **Login Name** to match their Windows login name.

Changing Virtual Directory Options in Windows Server 2008 or Vista (IIS 7.0)

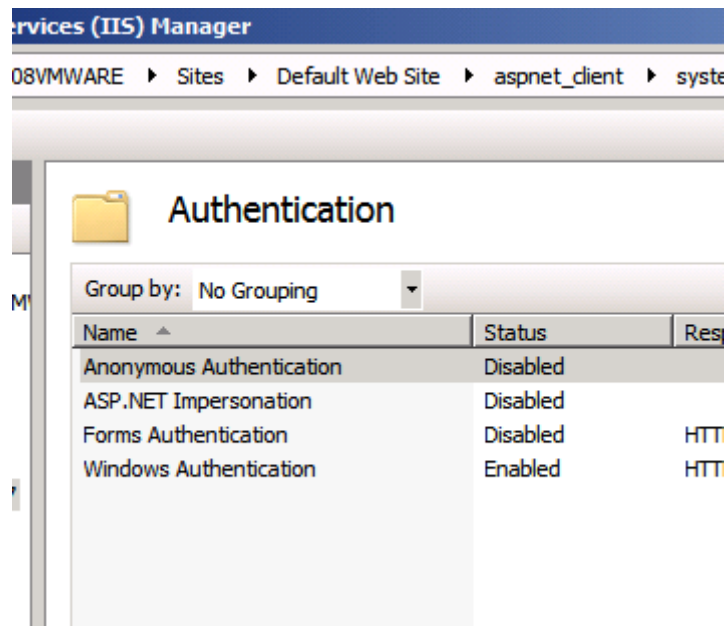
To change the CGI virtual directory settings in Windows Server 2008 or Windows Vista:

1. Run the IIS Manager.
2. In the left pane of the IIS Manager, expand the web site you chose to install Web TimeSheet to, typically named *Default Web Site*.
3. Select the *CGI* virtual directory.
4. In the right pane, double-click on **Authentication**.



5. Disable the **Anonymous Authentication** action.

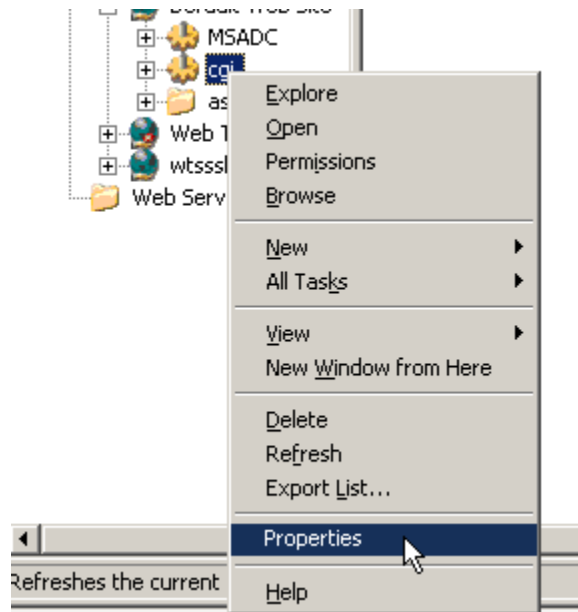
6. Enable the **Windows Authentication** action.



Changing Virtual Directory Options in Windows Server 2003, XP, or 2000 (IIS 6.0/5.x)

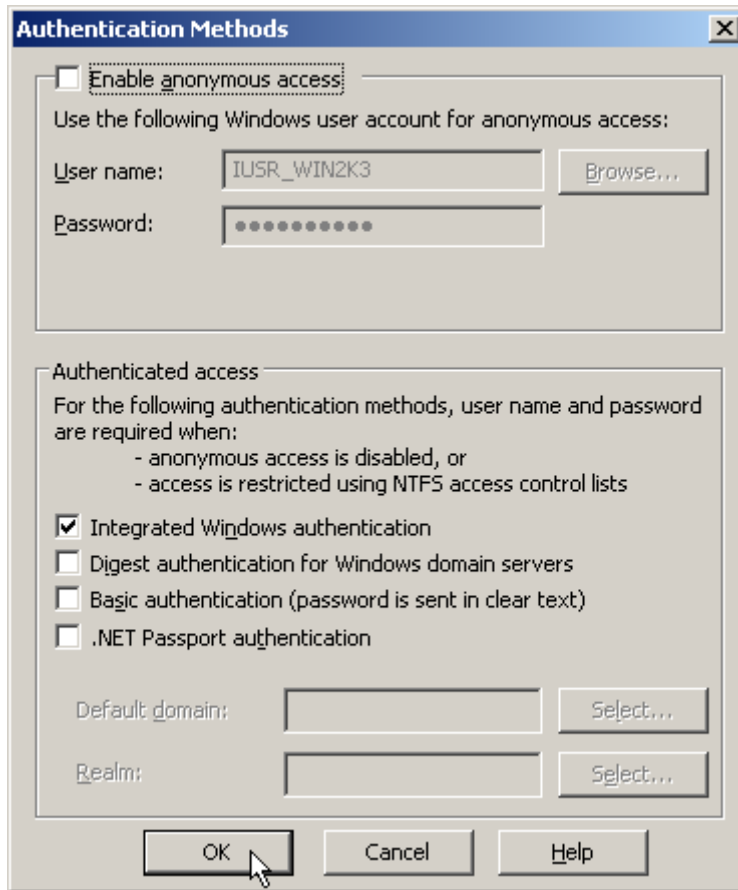
To change the CGI virtual directory settings in Windows Server 2003, Windows XP, or Windows 2000:

1. Run the IIS Manager.
2. In the IIS Manager, expand the web site you selected to install Web TimeSheet to, typically named *Default Web Site*.
3. Right-click on the *CGI* virtual directory and select **Properties**.



4. In the **CGI Properties** window that displays, select the **Directory Security** tab.
5. Select **Edit** in the **Anonymous Access** section.

6. In the **Authentication Methods** window:
 - a. Disable the **[Enable] anonymous access** check box.
 - b. Enable the **Integrated Windows authentication** check box.
 - c. Select **OK**.



7. Select **OK** to close the **CGI Properties** window.

Ensuring Web TimeSheet Security

If you decide to use an IIS server, you may need to set up Single Socket Layer (SSL) on the server to prevent transmission of plain text (unencrypted) passwords. Web TimeSheet uses HTTP, which is a plain text protocol. Therefore, all communication between the client and the server will be in plain text unless SSL is implemented.

Consider enabling SSL if you plan:

- To use NT authentication within Web TimeSheet
- To allow external access to Web TimeSheet over the Internet

For information on how to set up SSL, refer to support.microsoft.com/kb/299525.

Switching to Domain User Credentials on the Web TimeSheet Server

If Web TimeSheet and your SQL Server database are installed on separate machines, and you use Windows authentication (trusted connection), you must use domain user account credentials rather than local system account credentials on your server.

Local system credentials grant permissions on the local machine only and therefore do not allow Web TimeSheet to access a database on another machine. Switching to domain user credentials allows Web TimeSheet to connect to your database.

To switch to domain user credentials:

1. On your server, in the Windows **Control Panel**, select **Administrative Tools > Services**.
2. In the **Services** window, right-click on Web TimeSheet.
3. Select **Properties**. The **Web TimeSheet Properties** window displays.
4. Select the **Log On** tab.
5. Select the **This account** option and:
 - In the **This account** field, enter the `domain\username`.
 - In the **Password** field, enter the Windows password.
 - Confirm the password, if required.
6. Ensure the user has been added to the **SQL Server** group on the database machine.

Changing the IIS CGI Timeout

The default timeout setting when using CGI is 120 seconds. If you need to increase this value:


- In Windows 2000, install and use the IIS Manager Snap-In.
- In Windows Server 2003 and XP, use a metabase editing tool, such as the IIS 6.0 Resource Kit's *IIS Metabase Explorer*, from the IIS 6.0 Resource Kit.
- In Windows Server 2008 and Vista, edit the value in IIS Manager.

Starting and Stopping the Web TimeSheet Service

Web TimeSheet runs as a Windows service. You may need to stop and restart this service when backing up your database, applying a patch, making changes to the server's `.ini` file, or whenever cache must be read and restored.


To start or stop the Web TimeSheet service:

1. In the Windows **Control Panel**, select **Administrative Tools**.
2. Double-click **Services**.
3. Select the Web TimeSheet entry to highlight it, and select **Action** in the menu bar.
4. Select **Stop** to stop the service, or **Start** to start it.

 The Stop/Start status is shown in the **Status** column.


Accessing Web TimeSheet after Installation

Understanding the Web TimeSheet Website URL

 **In Web TimeSheet version 8.24 and higher, the Internal web server is no longer supported** Plus, due to changes in how IIS is configured, CGI and ISAPI are no longer applicable IIS configurations. Therefore, the URL formats listed in this section apply only to Web TimeSheet version 8.23 and lower.

For a self-hosted installation, Web TimeSheet's website URL depends on the type of server you are using, and has the following format:

Server Type	Protocol	URL Format
IIS	ISAPI (default)	http://server_name:port_number/cgi/rt.dll or http://IP_address:port_number/cgi/rt.dll
	CGI	http://server_name:port_number/cgi/rt.exe or http://IP_address:port_number/cgi/rt.exe
Internal web server	N/A	http://server_name:port_number/TimeSheet/ or http://IP_address:port_number/TimeSheet/

 You will only need to enter a port number if your web server uses a port other than port 80.

Once the application is installed, administrators should distribute the site's URL, together with login information, to all users so they can access Web TimeSheet via their web browser.

Starting Web TimeSheet on the Server

This section describes how to start the full version of Web TimeSheet on its server. If you are using a SaaS (Replicon-hosted) implementation of Web TimeSheet, you can access it through the **Customer Login** section of www.replicon.com.

To start Web TimeSheet:

1. Launch the application via one of the following:
 - If you selected **Launch Web TimeSheet now** on the final installation window, Web TimeSheet will open automatically when you select the **Finish** button.
 - If you selected **Create a shortcut on the desktop** on the final installation window, double-click the desktop icon.
 - Select Programs/Replicon/Web TimeSheet/Launch Web TimeSheet from the **Start** menu.

Your browser opens and, if Integrated Windows authentication was enabled during installation, you will be automatically logged in (although you must be logged into Windows using the same account you were logged in with during installation).

Otherwise, the Web TimeSheet login page displays. The user name `admin` should appear in the **Login Name** field.

☐ “admin” is the system administrator’s account and is used to set up the Web TimeSheet system.

2. In the **Password** field, enter a new password using a minimum of six characters, and then select the **Save** button.



Web TimeSheet

Set Up Password for 'admin' Account

Passwords are case sensitive and must be at least 6 characters long

Login Name:

Password:

Important: Remember this password, you will need it later.

☐ This password will also be used as the password for the “root” account. The root account should be used to log in to the system whenever the `admin` account cannot be used (for example, when the `admin` account password is changed, or when the `admin` user is disabled/deleted from the system).

Record this password, and keep that record in a secure place.

☐ The password is case sensitive.

3. The Web TimeSheet login page displays. Enter the password you just created into the **Password** field, and then select the **Enter** button.



Web TimeSheet

Use your 'admin' account password to log in.

Login Name: admin

Password: ●●●●●●●●●●

Enter

Remember my Login Name and Password

- You may elect to have the system remember your login name and password by enabling the appropriate check box.

APPENDIX A

Glossary

ASP Implementation	See SaaS (Replicon-hosted) Implementation .
Common Gateway Interface (CGI)	A specification used by Web TimeSheet to interact with the web server. Web TimeSheet supports either CGI or ISAPI.
Database Instance	A named installation of the database management system. Multiple databases can exist in one instance.
Database Management System	Computer software designed for the purpose of managing databases.
Database Platform	The type of database being used. Web TimeSheet supports the SQL Server Express, MSDE, SQL Server, and Oracle platforms.
Integrated Windows Authentication	A method for authenticating Web TimeSheet users. Users will be automatically logged in to Web TimeSheet using their Windows login name and password.
Internet Information Services (IIS)	Web server application software for Microsoft Windows. Web TimeSheet can be installed using IIS or Replicon's own web server, which is provided with Web TimeSheet.
Internet Server Application Programming Interface (ISAPI)	An interface used by Web TimeSheet to interact with an IIS web server. Web TimeSheet supports either ISAPI or CGI, but ISAPI typically provides better performance.
SaaS (Replicon-hosted) Implementation	A type of Web TimeSheet implementation in which the application is installed on servers managed by Replicon. The application is available to your users through the Internet, using a web address provided by Replicon or through the Customer Login section of the Replicon website. SaaS stands for Software as a Service.
Self-Hosted Installation	A type of Web TimeSheet implementation in which you install and manage the application and database within your organization. It is installed using a file provided by Replicon and the application is available to users through your network.
Upgrading	A type of upgrade where the existing database is upgraded in place. A copy of data is not made before the changes are made.
Web Server	A computer that delivers (serves up) web pages.