Web TimeSheet Integration Manager for Microsoft Project Server

Version 4.5

USER GUIDE

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Revision 08/14/09

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CHAPTER 1
Welcome

Welcome to the *Web TimeSheet Integration Manager for Microsoft Project Server User Guide*. Throughout this user guide, the Web TimeSheet Integration Manager for Microsoft Project Server will be referred to as the Integration Manager.

About the Integration Manager

The Integration Manager allows users to update project/task information, project team assignments, and timesheet data between Web TimeSheet and Microsoft® Project® Server easily and efficiently. Once installed, the Integration Manager is accessible from the Web TimeSheet folder in the **Start** menu on the user's local machine.

The Integration Manager allows one-way transfer of timesheet/hours data from Web TimeSheet to Microsoft Project. Bidirectional data transfer is available for project/task information and project team assignments. Bidirectional project/task information includes:

- Project/task structure
- Project manager
- Task estimated cost, with roll-up to the parent level
- Task start and end dates

The project start and end dates can be transferred one way, from Microsoft Project to Web TimeSheet (these dates are automatically determined in Microsoft Project based on the task start and end dates).

Technology

The Web TimeSheet Integration Manager for Microsoft Project uses streaming XML (Extensible Markup Language) technology, Microsoft Project Object Model, PDS (Project Data Service) and PDS extensions to update data between Web TimeSheet and Microsoft Project. The Integration Manager establishes a link with both the Web TimeSheet database and the Microsoft Project database and transfers data depending on the specified criteria.

About this User Guide

This user guide provides information on installing and using the Integration Manager. The information is organized into chapters and a table of contents is provided for quick reference.

Document Conventions

This user guide uses the following conventions:

- References to other areas in the document are shown *in italics and in blue* to indicate they are active links internal to the document. To automatically navigate to the section being referenced, select the link.
- Hyperlinks to websites or e-mail addresses are shown <u>in blue and underlined</u> to indicate they are 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 require further assistance configuring or using the Integration Manager, please contact Replicon's Customer Support team using one of the following methods:

Direct Phone: 403-262-6519 ext 3

Toll-Free Phone:
North America: 1-877-862-2519
Europe/New Zealand: 00-800-8622-5192
Australia 0011-800-8622-5192

E-mail: support@replicon.com

Web-Based Form: http://www.replicon.com/Support/RequestHelp.aspx

Fax: 403-233-8046

CHAPTER 2

Getting Started

This chapter provides information on where to download the Integration Manager, starting the module once it is installed, troubleshooting connection issues, understanding log files, and accessing the online help.

Downloading and Installing the Integration Manager

The Web TimeSheet Integration Manager for Microsoft Project can be downloaded from within the **Integrations** section of Web TimeSheet. Refer to the **Integrations** chapter in Web TimeSheet's online help for information on installing the integration module.

> ***Automatic Updates...***
> As of Version 4.4, the first time you launch the integration module after an upgrade becomes available, your version will be automatically upgraded.

Configuring Microsoft Project Server

Before you launch the Integration Manager, you must configure Microsoft Project Server to ensure that the Integration Manager can transfer data.

Configuring Microsoft Project Server 2007

To configure Project Server 2007:

1. Log in to Microsoft Project Web Access.

   > For information on accessing the Web Access interface, contact your system administrator or refer to Microsoft Project's documentation.

2. Select **Server Settings** from the side menu.
3. From under **Time and Task Management**, select **Task Settings and Display**
4. From the **Tracking Method** row, select the **Hours of work done per period** option.
5. From the **Reporting Display** row, select **Resources should report their hours worked every day**.
6. Select **Save**.
7. Sign out of Microsoft Project Web Access.

> Any changes made to the Microsoft Project server configuration will only apply to projects added to the server after the changes.

Configuring Microsoft Project Server 2003

To configure Project Server 2003:

1. Log in to **Microsoft Project Web Access**.

   For information on accessing the **Web Access** interface, contact your system administrator or refer to Microsoft Project's documentation.
2. Select **Admin** from the top menu.

3. Select **Server configuration**.
4. Select the **Enable enterprise features** option.
5. Select **Save Changes**.
6. Select **Customize Project Web Access**.
7. Under **Specify the default method for reporting progress on tasks**, select **Hours of work done per day or per week...**.
8. Under **Time period settings**, select:
   - **Non Managed Periods**
   - **Resources should report their hours worked every day**
9. In the **Maximum number of hours that can be entered per day for a single task** field, enter `0` if you do not want to limit the number of hours that can be entered.

   Changing this setting is typically unnecessary; however, if you leave the field set to a specific number of hou8-9rs, errors may occur during data transfer under some conditions.

10. Select **Save Changes**.
11. Log off of **Microsoft Project Web Access**.

Any changes made to the Microsoft Project server configuration will only apply to projects added to the server after the changes.

Updating Automatic Update Service User Account Information

If you need to update the Automatic Update service login information after installing the Integration Manager:

1. Open Windows' **Services** window.
2. Double-click the **MSPI AutoUpdate** service entry.
3. Select the **Log On** tab. On this tab, the **This account** option should be selected, displaying the current account login information.
4. Update the account user name and password information, as required.
5. Select OK.

Starting the Integration Manager

Before launching the Integration Manager, ensure Microsoft Project Server is configured correctly, as detailed in *Configuring Microsoft Project Server* on page 7.

The Integration Manager must be installed on your local computer in order to transfer data. Once installed, you can access the Integration Manager by following the steps below:

1. From the Windows **Start** menu, select **Integration Manager for Microsoft Project Server**.

   A **Setup for Web TimeSheet Integration Manager** window displays.

   The Integration Manager is typically located inside the **Web TimeSheet** folder; if you cannot find it, ask your system administrator where it was installed.

2. Modify, if desired, the following **Microsoft Project Server information**:
   - Server location

- **User name** and **Password** (only required if you are using Project Server account authentication)
- Project Server account option:

Project Server account option	Select this account type option if...
Use Windows user account	Microsoft Project Server is set up to use your Windows account information. Selecting this option ensures that if you change your Windows login information, the Integration Manager will recognize the new information and still allow you to log in.
Use a Project Server account	You are using a unique user name and password in Microsoft Project Server (not your Windows account information)

3. Enter (or modify, if desired) the following **Web Timesheet Connection** information:
   - The **Web TimeSheet URL**, which is used to access Web TimeSheet on the server. If you are unsure of the URL, check with your system administrator.
   - Your Web TimeSheet **Login name** or **Password** you normally use to log in to Web TimeSheet.
   - If you would like your Web TimeSheet connection information to be saved, enable the **Remember this information** check box. You will still be able to change your login information, if necessary, from the **Configuration** tab within the Integration Manager.
4. Select the **OK** button to connect to Web TimeSheet. If the connection is successful, the Integration Manager will open in a new window. If the connection fails, refer to *Possible Reasons for Connection Failure* on page 9 below for more information.

You can change your setup information later, if necessary, from the Integration Manager's **Configuration** tab. For more information on how to do this, refer to *Chapter 6, Modifying Configuration Settings* on page 25.

Possible Reasons for Connection Failure

If you are unable to connect to Web TimeSheet, the Integration Manager will display an error message indicating the reason why the connection failed. Possible reasons for a failed connection include:

- **User Name/Password Error**
  Your user name does not exist, your user profile has been disabled, or your password is invalid. If you cannot resolve the issue on your own, please contact your Web TimeSheet administrator.
- **License Error**
  You do not have a valid license key and/or seat assignment for the Web TimeSheet Integration Manager for Microsoft Project Server, or your license key has expired. Please contact your Web TimeSheet administrator for further information.
- **Server Connection Error**
  The server location is invalid, or there is a problem connecting to the Web TimeSheet server. Please contact your system administrator for further information.

- **Interrupted Connection**
  The connection to the Web TimeSheet server has been interrupted. The Integration Manager will automatically try to reconnect before requiring feedback. If you receive this error, you may choose to retry, or cancel the connection and try again later.

Understanding the Integration Manager Log Files

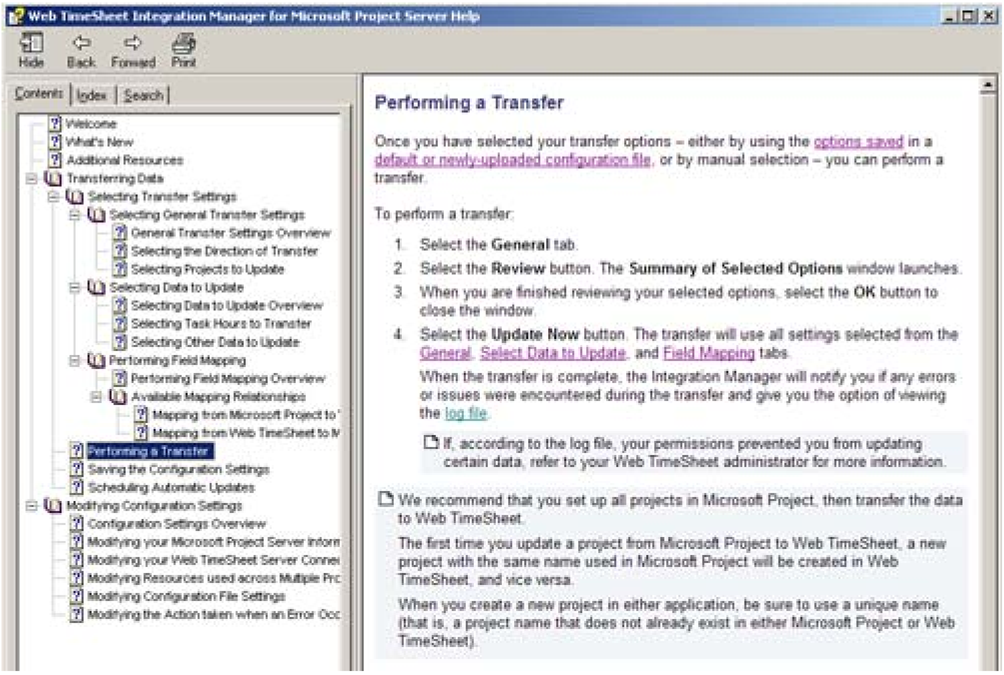
The Integration Manager generates two log files that are available for viewing at any time:

Log File Name	This file is typically located at...	Contains all information logged...
`MSPIlog.txt`	**In XP or earlier:** C:\Documents and Settings\<*logged-in user's name*>\Local Settings\Application Data[a]\Replicon\Integration Manager for Microsoft Project **In Vista:** C:\Users\<*logged-in user's name*>\AppData[a]\Local\Replicon\Integration Manager for Microsoft Project	... before the Integration Manager logs in to Web TimeSheet (for example, information regarding login failures) AND all information logged after the Integration Manager connects to Web TimeSheet (for example, information on all events that occurred during the transfer process, including errors encountered and items that were not updated due to problems with Web TimeSheet editing permissions)
`MSPIService.txt`	**In XP or earlier:** C:\Documents and Settings\All Users\Application Data[a]\Replicon\Integration Manager for Microsoft Project\Auto Update Log Files **In Vista:** C:\ProgramData[a]\Replicon\Integration Manager for Microsoft Project\Auto Update Log Files	... during auto updates (actions and logs)

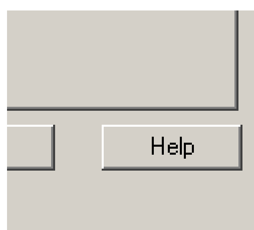
a. **Application Data**, **AppData** , and **ProgramData** are by default hidden folders, so you will have to enable the **Show hidden files and folders** option in your operating system to view them. To find this option in Windows XP or earlier, select **Tools** > **Folder Options...** > **View**. To find this option in Vista, select **Organize** > **Folder and Search Options** > **View**.

Accessing the Online Help

The Integration Manager includes an online help system that provides comprehensive information on using the software to complete key tasks, as shown below.



To access the online help, select the **Help** button in the bottom, right hand corner of the main Integration Manager window.



CHAPTER 3

Transferring Data

The Web TimeSheet Integration Manager for Microsoft Project Server allows you to transfer data between Web TimeSheet and Microsoft Project Server.

This chapter provides information on:

- Setting up the Integration Manager before performing a transfer. For more information on this topic, refer to *Setting Up the Integration Manager* on page 12.
- Saving transfer settings. For more information on this topic, refer to *Saving Transfer Settings* on page 16.
- Performing a transfer. For more information on this topic, refer to *Performing a Transfer* on page 17.

Setting Up the Integration Manager

Before you can transfer data (using the procedure described under *Performing a Transfer* on page 17), you first need to specify some setup options to ensure that the proper data is updated and the field mappings are appropriate.

Once you have set up a data transfer, you can save your settings and use them for future transfers, or as a starting point for making modifications to the settings. You can save multiple data transfer configurations.

- For information on saving your settings, refer to *Saving Transfer Settings* on page 16.
- For information on loading a previously-saved configuration file, refer to *Chapter 5, Modifying Configuration Settings Information* on page 31.

To set up the Integration Manager, you must:

1. Select the direction of transfer, and the projects you would like to update. For information on doing this, refer to *Selecting General Update Settings* on page 12.
2. Select the data you would like to update. For information on doing this, refer to *Selecting Data to Update* on page 13.
3. Perform resource mapping, if required. For information on doing this, refer to *Performing Field Mapping* on page 16.
4. Perform field mapping. For information on doing this, refer to *Performing Field Mapping* on page 16.

To prevent data conflicts, when transferring from Web TimeSheet to Microsoft Project, start and end dates, task duration and type, and time entries are not updated for projects and tasks that have subtasks ("child" tasks). Data for these “parent” tasks is updated based on the entries of their “child” tasks in Microsoft Project.

Selecting General Update Settings

Select the direction of transfer and which projects you would like to update using the **General** tab.

Selecting the Direction of Transfer

Use the **Select Direction To Update Data** field (of the **General** tab) to select one of the following options:

- *Transfer data from Microsoft Project to Web TimeSheet*
- *Transfer data from Web TimeSheet to Microsoft Project*

Selecting Projects to Update

Use the **Select Projects To Update** field (of the **General** tab) to select the projects you want to update. If you are transferring data:

- **From Web TimeSheet to Microsoft Project**, you can select any number of the projects available within Web TimeSheet.

  > If you would like only projects with **Open** status in Web TimeSheet to display, enable the **Hide closed projects** check box. When this option is enabled, all closed projects will disappear from both the **Available** and **Selected** projects lists.

- **From Microsoft Project to Web TimeSheet**, you can select any number of the projects available in the Microsoft Project Server installation.

  > Only projects published in Microsoft Project will display in the Integration Manager's project selection list.

To select projects to update:

1. Select the **Refresh List** button to ensure the list of available projects is up to date.
2. Select a project, or multiple projects, from the **Available Projects** list on the left. To select multiple projects, hold down the `Ctrl` key while selecting the project names.
3. Select the ⇨ button to add the selected projects to the **Selected Projects** list on the right.

> ⚠ The Integration Manager does not support the transfer – in either direction – of projects that have been assigned multiple clients using the **Bucket method** or **Project cost allocation** options.

Selecting Data to Update

Specify the types of data you would like to transfer using the **Select Data to Update** tab. Depending on the direction of transfer, only certain options outlined in the procedure that follows will be available.

Selecting Task Hours to Transfer

If you are transferring from Web TimeSheet, enable the **Update Task Hours** check box if you want to include task hours in the update. Task hours cannot be transferred from Microsoft Project to Web TimeSheet. Only hours that meet all selected criteria will be updated.

> When updating for the first time, update all hours within the project start and end dates to ensure all the necessary data is available in both applications.

To select task hours to transfer to Project:

1. From the **Approval Status** field, select one of the following:
   - **All hours** (regardless of whether the time has been committed/approved)

     Use this option if you have a short project cycle or deadlines that fall outside the usual timesheet due dates

- **Approved hours**

  Use this option if your project has a longer cycle (one for which the estimate vs. actual values do not require constant comparison).

  > Time will be updated only for resources that are set up explicitly as members of the project team in Web TimeSheet (not members that receive their assignments via an `<All>` or department assignment).

  > If you have added resources to your project, you should perform an update for the project structure/resources before attempting to update any time.

2. Select the **Date Range** for the task hours, if applicable. The date range options are:
   - All

     Transfers all dates for which hours have been entered into Web TimeSheet for the project. If any of these dates fall outside of the estimated project start and end dates set in Microsoft Project, they will be included in the transfer, and the project start and end dates will be automatically updated to include these dates.
   - **From/To** (date range)
   - **Timesheet Period**
   - Time Data of

     Select one of the following options:

Option	Transfers time entered...
Current Week	... from the most recent Sunday to the day prior to the transfer date. For example, if you transfer data on Wednesday, data from Sunday to Tuesday will be included.
Previous Week	... for the week – spanning Sunday to Saturday – previous to that of the transfer date.

> If the transfer day is a Sunday, select **Previous Week**. If you select **Current Week**, the time period will include zero days and no data will be transferred.
>
> If the Integration Manager cannot read the users' weekly days off from the Project calendar, the days off are assumed to be Saturday and Sunday.

> Transfers automatically adjust to use data from the selected relative time period. Therefore, you do not need to adjust the date with each transfer.

> When updating hours from Web TimeSheet to Microsoft Project, the Integration Manager calculates the total actual work for the project. The **Work** field will not be affected by these calculations because this field is automatically calculated by Microsoft Project based on multiple variables.

3. From the **Transfer** field, select to transfer one of the following:
   - Only modified and new time cells

- All time cells

For information on how the Integration Manager handles transfers involving duplicate user names in Web TimeSheet, refer to *Understanding how Duplicate Users are Transferred* on page 23.

Selecting Other Data to Update

Under **Advanced Settings**, select any other types of data you would like to update by enabling the appropriate check boxes.

The available options are:

Option Name	When enabled, transfers...	Notes
Update Project/Task Structure	• Project and task names • The task sort order • Additional project/task information selected in the field mapping • Project start and end dates	This data is updated by default during the first transfer in either direction.
Update Project Manager	• The **Manager** field in Project (located on the **File** > **Properties** > **Summary** tab) *to or from...* • The **Project Leader** field in Web TimeSheet	Transfer of this field is successful only if the manager: • Is present in the Web TimeSheet **User** list • Has Manager permissions If you enable this option, you must specify the name format in the Resource Name Mapping field. For information on name formats, refer to *Chapter 5, Mapping Resources* on page 21.
Update Task Start Date	• The project or task's **Start** date field in Project (located on the **File** > **Properties** > **Contents** tab) *to or from*...* • The **Time Entry Start Date** field in Web TimeSheet	* If you are transferring a project from Web TimeSheet to Microsoft Project, start and end dates: • **ARE updated**, if it is the first transfer of that project. If you do not enable these options, the date of transfer will be transferred to these Project fields instead • **ARE NOT updated**, if it is the second (or subsequent) transfer of that project. Not updating these fields in this direction prevents data conflicts.
Update Task End Date	• The project or task's **Finish** date field in Project (located on the **File** > **Properties** > **Contents** tab) *to or from*...* • The **Time Entry End Date** field in Web TimeSheet	

Option Name	When enabled, transfers...	Notes
Update Project Team	• Employees who are project resources in Microsoft Project *to or from...* • Employees who are members of the Web TimeSheet project team	You may choose to transfer one of the following: • Only the resources for a project team the project team members will be created in the Web TimeSheet **User** list • The resources and their task assignments the project team members will be created in the Web TimeSheet **User** list and they will be assigned to the appropriate project/task If you enable this option, you must specify the name format in the Resource Name Mapping field. For information on name formats, refer to *Chapter 5, Mapping Resources* on page 21.

Performing Field Mapping

Once you have selected which data you would like to transfer, you must then map applicable fields in Web TimeSheet to their corresponding fields in Microsoft Project, or vice versa. You can set up mapping relationships for only one update direction at a time – the update direction you selected on the **General** tab.

To set up a mapping relationship:

1. Select the **Field Mapping** tab.
2. From the drop-down list on the left, select a source application field name. This list contains all the available fields in the source application.
3. From the drop-down list at the right, select the destination application field to map to the selected source field. Once selected, a field is no longer available for mapping.
4. Select the **Add** button. The selected fields will display in the **Selected Mapping Relationships** list box.

To remove a mapping relationship, select the relationship from the **Selected Mapping Relationships** list box and select the **Remove** button.

For information on the available mapping relationships, refer to *Chapter 7, Field Relationships* on page 34.

Saving Transfer Settings

The data transfer settings you have selected can be saved to a file which can be loaded into the Integration Manager to restore the configuration settings to the saved values.

A configuration file can also be specified as the default and automatically loaded when the Integration Manager starts.

☑ If you regularly perform several different types of transfer, create a file for each configuration and load each as required.

The data transfer settings are saved in a configuration file with the extension .XML. The following settings are saved in the configuration file:

Tab where data was selected	Data saved in the configuration file
General	The direction of data transfer The projects selected for transfer
Select Data to Update	All options selected
Field Mapping	All field mappings selected
Configuration	The **Resource Pool Configuration** settings selected The Microsoft Project Server Information settings selected

To save the current configuration settings:

1. Select the **Save** button. A **Save Settings to File** window displays.
2. Navigate to the location where you want to save the configuration file.
3. In the **File name** field, enter a name for the configuration file.
4. Select **Save**. A message box indicating that the settings have been saved displays.
5. Select **OK** to close the message box.

To load the settings saved in a configuration file into the Integration Manager:

1. Select the **Configuration** tab.
2. In the **Load Configuration File** field, use the **Browse** button to select the file you would like to load.

Any changes you make to the configuration settings are discarded when you select the **Exit** or the **Reset** button. Changes to the settings are only saved when you select the **Save** button, and save your current settings to a configuration file.

Selecting the **Reset** button refreshes the Integration Manager's connection to Microsoft Project and to Web TimeSheet; if you are using a default configuration file, your settings will revert to those saved in the file.

Performing a Transfer

After setting up and saving the options, you can perform updates at regular intervals without needing to repeat the setup process.

We recommend that you set up projects in Microsoft Project, then transfer the data to Web TimeSheet.

When updating projects, only the first ten levels of the hierarchy will be updated.

To perform a transfer:

1. Select the **Review** button. The **Summary of Selected Options** window launches.
2. Review your selected options, then select the **OK** button to close the window.
3. Select the **Update Now** button. The transfer will use all settings selected from the **General**, **Select Data to Update**, and **Field Mapping** tabs.

- For information on the **General** tab settings, refer to: *Selecting General Update Settings* on page 12.
- For information on the **Select Data to Update** tab settings, refer to: *Selecting Data to Update* on page 13.
- For information on the **Resource Mapping** tab settings, refer to: *Chapter 5, Mapping Resources* on page 21.
- For information on the **Field Mapping** tab settings, refer to: *Performing Field Mapping* on page 16.

When the transfer is complete, the Integration Manager will notify you if any errors or issues were encountered during the transfer and give you the option of viewing the log file.

> If, according to the `MSPIlog.txt` log file, your permissions prevented you from updating certain data, refer to your Web TimeSheet administrator for more information.
>
> For more information on the Integration Manager log files, refer to *Chapter 2, Understanding the Integration Manager Log Files* on page 10.

> ⚠ You cannot cancel the transfer process once it has begun. If you choose to close the window before the transfer is complete, the partially-transferred data will not revert back to its original state.

> For information on how the Integration Manager handles transfers involving duplicate user names in Web TimeSheet, refer to *Understanding how Duplicate Users are Transferred* on page 23.

Publishing and Updating Data on the Project Server

To make transferred projects visible in Microsoft Project:

- You will have to *publish* any projects that you transferred for the first time. To do this, from within Microsoft Project:
    a. Select **Collaborate**.
    b. Select **Publish**.
    c. Select **All Information**.
- You may have to *update* all transferred information. To do so, from within Microsoft Project:
    a. From the **Collaborate** menu, select **Update Project Progress**.
    b. Set the **Accept** status of the transferred task, or select **Accept All**.
    c. Select **Update**.

> If you transfer a task that has a new assignment in Web TimeSheet to Microsoft Project, in order to see all the new information in Microsoft Project, you may need to:
>
> 1. Transfer the project to Microsoft Project.
> 2. Publish the project.
> 3. Transfer the project to Microsoft Project a second time.
> 4. Update the information, as outlined above.
>
> Refer to your Microsoft Project Server documentation for further information about publishing to the server and accepting changes to projects and tasks.

CHAPTER 4
Scheduling Automatic Updates

The Integration Manager can be configured to automatically transfer data. Automatic transfers can be scheduled to occur just once, or on a regular basis. You can schedule multiple automatic transfers, each with its own configuration file and schedule.

> Scheduled updates will occur even if the Integration Manager is not running at the time of the transfer. You may open and close the Integration Manager while automatic updates are occurring without impacting the update.

Scheduling an Automatic Update Action

To schedule an automatic update:

1. Enter the data transfer settings you want to use. For information on how to do this, refer to *Chapter 3, Transferring Data* on page 12.
2. Save the settings to a configuration file. For information on how to do this, refer to *Saving Transfer Settings* on page 16.
3. Select the **Automatic Update** tab.
4. Check the **Enable Automatic Updates** check box.
5. Select **New Action** to create a new automatic update action.

   > You can create multiple actions. This allows you to update different projects at different times.

6. Enter a **Name** for the action.
7. Check the **Enabled** check box.

   Only enabled update actions are carried out.
8. Use the **Browse...** functionality to select the configuration file saved in step 2.

   > You can preview the settings contained in the configuration file by selecting the **Preview** button.

9. From the **Update Time** drop-down list, select the time of day when the update should occur.

   > You can schedule multiple update actions to occur at the same time. The order of updates in the **Schedule Actions** list box determines the order in which the updates occur. Use the arrow buttons to adjust the order of the actions in the list box.

10. Specify whether the update should occur once or on multiple occasions:

    To schedule an update to occur just once:

    a. Select the **Update once on** option.
    b. Select the date when you want the update to occur.

    To schedule the update to occur on a regular basis:

    a. Select the **Update regularly starting on** option.
    b. Select the date when you want the first update to occur.
    c. Specify the interval at which the update will occur:

        - For an interval measured in days, select the **Every ... day(s)** option and enter the desired update interval in days.
        - For an interval measured in weeks, select the **Every ... week(s)** on option and enter the desired update interval in weeks. Then, select one or more days on which the update will occur during each specified update week.

11. Select **Save Action**. The action will display in the **Scheduled Actions** list box, and the updates will begin on the date you specified.

Editing an Automatic Update Action

To edit an automatic update action:

1. Select the action from the **Scheduled Actions** list box.
2. Make desired changes to the settings in the **Scheduled Action Details** section.
3. Select **Save Action**. A dialog box displays:
    - To overwrite the existing action with the new settings, select **Yes**.
    - To create a new action with the settings, select **No**.

Disabling an Automatic Update Action

To disable an action so that the specified update does not occur:

1. Select the action from the **Scheduled Actions** list box.
2. Clear the **Enabled** check box.
3. Select **Save Action** to save the changes.
4. When asked if you want to overwrite the existing action, select **Yes**.

The update will not occur until the action is enabled again.

Deleting an Automatic Update Action

To permanently delete an action so the action is no longer available for use or editing:

1. Select the action from the **Scheduled Actions** list box.
2. Select **Delete Action**.

CHAPTER 5
Mapping Resources

A resource name formula must be defined in the Integration Manager so that:

- When you transfer users and resources between Project and Web TimeSheet, the Integration Manager can match each resource with the correct user.
- If the Integration Manager is creating a new user in the destination application, it can determine what format to use when creating the new user's details.

You can set the resource name formula and other resource transfer settings via the **Resource Mapping** tab, using the fields outlined below.

Setting the Resources Options

Map Resources to Users using

Use this field to choose whether resources should be mapped using their name (**Resource Name <--> User Name**) or their authentication settings (**Windows Account <--> Login Name**).

Both options are only available if **Enable Windows NT/Active Directory login verification** or **Enable SAML authentication** is checked in Web TimeSheet's system preferences. If you use Web TimeSheet authentication only, the **Resource Name <--> User Name** option will be selected by default.

Resource Name Formula

Use this field to specify the resource name formula. This formula determines the name format the Integration Manager will use to match resources and their corresponding users. You can create a custom name formula, or retain the default (`$FirstName $LastName`). The format options are:

Allowed Formula Tag...	Web TimeSheet field mapped to...
$FirstName	First Name
$LastName	Last Name
$LoginName	Login Name
*$Other***	Does not map.

At minimum, the formula must include either *$LoginName* or both *$FirstName* and *$LastName*.

**Use the *$Other* tag to represent any other text in the resource name that does not correspond to anything in Web TimeSheet. You may also include non-text special characters (such as *. , ( ) { } [ ] **) that do not map to anything in Web TimeSheet.

When transferring from Microsoft Project to Web TimeSheet, ensure that you use the same resource name mapping formula. If a resource who was previously transferred to Web TimeSheet is transferred again using a different resource name mapping formula, the user will be duplicated in Web TimeSheet using the new name format.

Create a new user in Web TimeSheet if user does not exist

If a resource you are transferring from Project does not yet exist in Web TimeSheet, you can choose to create that user in Web TimeSheet. You must have permission to add new users in Web TimeSheet to carry out this transfer.

We recommend selecting this option:

- To ensure that all necessary information is transferred during the update process
- To prevent update delays while you wait for the necessary information to be added.

If you enable this option, you must supply the default authentication type and domain (if applicable) that you would like assigned to the new user. Only authentication types enabled in Web TimeSheet will be available for selection.

Understanding Settings Assigned to Newly-Created Users

The following settings are automatically assigned to new users created in Web TimeSheet.

Type of Setting	Each new user created in Web TimeSheet will be assigned...
Permissions	*Non Exempt - Time and Time Off* permission *Project & Billing* seat assignment (and *Time & Attendance*, if available)
Password (if applicable)	The password *password*
First Name	A first name based on the *$FirstName* from the resource name formula, if available. If not available, the first name will be set to the *$LoginName* included in the formula.
Last Name	A last name based on the *$LastName* from the resource name formula, if available. If not available, the first name will be set to the *$LoginName* included in the formula.
Authentication type	The authentication type selected in the Integration Manager.
Login name	If Windows NT, Active Directory, or SAML authentication are selected, the Windows Account login name value as their Web TimeSheet login name. If Windows Account is not available, or Web TimeSheet Internal authentication is selected, the Web TimeSheet login name will be set to the *$LoginName* included in the formula. If *$LoginName* is not included in the formula, the login name will be set to *$FirstName$LastName*.
Domain (if applicable)	The domain from the user's Windows Account, if available. If not available, the user will be assigned the domain selected in the Integration Manager. ***This value can be reset manually after transfer if different domains are required in Web TimeSheet and Project.*

Assign a Windows Account when creating resources in Microsoft Project

If a user you are transferring from Web TimeSheet does not yet exist in Project, you can choose to assign these users a Windows Account when they are created in Project. If you enable this option, you must supply the domain that you would like assigned to the new user, if this information is not available in Project.

The following settings are assigned to new users created in Project.

Type of Setting	Each new user created in Microsoft Project will be assigned...
Resource Name	A name using their first, last, and login name details from Web TimeSheet, and based on the resource name formula.
Windows Account	A Windows Account with the user's Web TimeSheet login name and domain. If that domain is not available, the user's domain will be set to that entered in the Integration Manager.

Setting the Resource Pool Updates Options

The Microsoft Project resource pool is a set of resources that can be shared by several projects, saved in a **Local resource data file**.

Transferring Resource Pool members to Web TimeSheet

To transfer resources from the Microsoft Project resource pool to Web TimeSheet, select the **Update Now** button.

Using Custom Fields when transferring Resources from the Resource Pool

You can set up custom fields in Microsoft Project for use when transferring new users' from the resource pool to Web TimeSheet. You can create and select custom fields for the users' **login name** or **password**.

If you do not set up the custom fields, the Integration Manager will assign the login name and password as outlined on *Understanding Settings Assigned to Newly-Created Users* on page 22.

⚠ If Windows NT, Active Directory, or SAML authentication are selected in the Integration Manager, the login name will be based on the Windows Account value, if available, and not the custom field value.

Understanding how Duplicate Users are Transferred

It is possible to create two or more users with the same user name in Web TimeSheet; however, the duplicate users' login names must be unique.

Microsoft Project does not allow users with the same user name to be created.

Refer to the table below for information on how the Integration Manager handles transfers involving duplicated users.

If you attempt to transfer...	The Integration Manager will...
... users that are duplicated in Web TimeSheet to Microsoft Project, when none of the duplicated users exist in Project	... automatically append, in brackets, the user's login name to their last name in Project. This will happen even if only one of the duplicated employees is transferred.

If you attempt to transfer...	The Integration Manager will...
... users that are duplicated in Web TimeSheet (or their data) in either direction, when that employee's user name exists – but has not been appended with their login name – in Project ***Note:*** *This situation may arise if, for example, you transferred a user to Project before creating a duplicate in Web TimeSheet, or if you created a user who was duplicated in Web TimeSheet independently in Project (this is not recommended).*	... not transfer the duplicated users/data, and an error will be logged, since the user's data in Project may correspond to any of the duplicated users in Web TimeSheet. In this case, you may manually append the user's login name to their last name in Project, and then transfer the user/data.

CHAPTER 6

Modifying Configuration Settings

Use the **Configuration** tab to modify these configuration settings, as required:

Configuration Section Name	Use this section to specify...	For information on these settings, refer to...
Web TimeSheet Server Connection	The location and authentication information for the instance of Web TimeSheet you want to connect to	*Modifying your Web TimeSheet Server Connection* on page 25
Microsoft Project Server Information	The location and authentication information for the instance of Project Server you are using	*Modifying your Microsoft Project Server Information* on page 25
Configuration File	Which file containing previously-saved settings to use	*Modifying Configuration Settings Information* on page 26
Prompt Message Options	What action the Integration Manager should take when an error occurs	*Modifying the Action the Integration Manager takes when an error Occurs* on page 26

Modifying your Web TimeSheet Server Connection

Modify, if desired, the following **Web Timesheet Server Connection** information:

- The **Web TimeSheet URL**, which is used to access Web TimeSheet on the server.
- Your Web TimeSheet **Login name** or **Password**.
- If you want to connect to Web TimeSheet to begin updating data or to test the new connection, select the **Connect** button.
- If you want the Integration Manager to save your Web TimeSheet connection information so you do not have to re-enter it next time you log in, enable the **Remember this information** check box.

Modifying your Microsoft Project Server Information

Modify, if desired, the following options in the **Microsoft Project Server Information** section:

- **Server location**
- **User name** and **Password** (only required if you are using Project Server account authentication)
- Project Server account option:

Project Server account option	Select this account type option if...
Use Windows user account	Microsoft Project Server is set up to use your Windows account information. Selecting this option ensures that if you change your Windows login information, the Integration Manager will recognize the new information and still allow you to log in.

Project Server account option	Select this account type option if...
Use a Project Server account	You are using a unique user name and password in Microsoft Project Server (not your Windows account information)

Modifying Configuration Settings Information

In the **Microsoft Project Configuration** section:

- If you want to load the settings from a previously-saved .XML configuration file, use the **Browse** button to locate and select the file.

  The Integration Manager will automatically update its configuration settings using those stored in the file. For more information on saving configuration settings, see *Modifying the Action the Integration Manager takes when an error Occurs* below.
- Enable the **Use this file as the default Configuration** check box if you would like the selected configuration file to load by default when the Integration Manager is launched.

Modifying the Action the Integration Manager takes when an error Occurs

To modify the action the Integration Manager takes when an error occurs:

In the **Prompt Message Options** section, in the **When error occurs during data transfer** field, select the action the Integration Manager should take when an error occurs. The options are described in the following table:

Option	The Integration Manager...
Prompt	Prompts you to choose between continuing and aborting the transfer
Continue Transfer	Automatically continues the transfer
Abort Transfer	Automatically aborts data transfer

CHAPTER 7
Field Relationships

On the following pages, the field mappings available when transferring from Web TimeSheet to Microsoft Project and when transferring from Microsoft Project to Web TimeSheet are provided.

Important Notes on Mapping Fields

Keep the following in mind when selecting field mappings:

- For Microsoft Project Server, mapping is available to project/task specific custom fields at the enterprise level only. Custom fields set up in your local version of Microsoft Project are not available for mapping.
- When you map from Microsoft Project custom fields to Web TimeSheet user defined fields, calculated fields are excluded because Web TimeSheet user defined fields cannot perform calculations.
- Mapping between Web TimeSheet user defined fields and Microsoft Project custom fields is dependent on the field type. This means that data transfer may fail if the data types are not compatible. For example, a number field cannot successfully transfer data to a date field; however, a number field can successfully transfer data to a text field.

Available Mappings from Web TimeSheet to Microsoft Project

Web TimeSheet Field (source)	Microsoft Project Field (target)
Project Description	Project Category Project Keyword Project Subject Project Title Project Comments Project Author Project Company Enterprise Custom Fields (Project Type)
Project Code	Project Category Project Keyword Project Subject Project Title Enterprise Custom Fields (Project Type)
Project Client	Project Company Enterprise Custom Fields (Project Type)
Task Code	Enterprise Custom Fields (Task Type)
Task Estimated Hrs	Task Work Enterprise Custom Fields (Task Type)

<table>
<tr><th>Web TimeSheet Field (source)</th><th>Microsoft Project Field
(target)</th></tr>
<tr><td>Task Estimated Cost</td><td>Task Cost
Enterprise Custom Fields (Task Type)</td></tr>
<tr><td colspan="2">Notes:
• Microsoft Project allows entry of the estimated cost only at the bottom level of the project/task structure, therefore you should not enter estimated cost values for any parent projects/tasks in Web TimeSheet. Values entered for higher level tasks will not be included in the update process.
• Turn on the Project/Task Roll-up feature in Web TimeSheet before the first update is performed from Microsoft Project to Web TimeSheet.
• The method Project uses to calculate Task Cost results in an inaccurate Task Cost value in Project if, during the same update, you transfer both:
    • One or more new resource assignments, AND
    • Task Estimated Cost to Task Cost
To prevent this inaccuracy, transfer new resources and cost mapping for a task in separate updates.
If you have already transferred cost mapping and new resources for a task in a single update, re-transfer the project from Web TimeSheet to Microsoft Project using the same mapping to correct the data inaccuracy.</td></tr>
<tr><td>Task Description</td><td>Enterprise Custom Fields (Task Type)</td></tr>
<tr><td>Currency Symbol</td><td>Enterprise Custom Fields (Project Type)</td></tr>
<tr><td>User Rate</td><td>Resource Standard Rate</td></tr>
<tr><td>User Hourly Cost</td><td>Resource Standard Rate</td></tr>
<tr><td>User Default Billing Rate</td><td>Resource Standard Rate</td></tr>
<tr><td>Task Level User Defined Fields (Proj/Task Category)</td><td>Custom Fields (Task Type)</td></tr>
<tr><td colspan="2">Note: If you attempt to map task level user defined fields to a single project level field in Microsoft Project, the field data will not be updated and an error will appear in the update log file. This occurs because tasks may potentially have multiple values for the selected field and can therefore not be mapped to the project field, which can only receive one value.</td></tr>
<tr><td>Project Level User Defined Fields (Proj/Task Category)</td><td>Project Category
Project Keyword
Project Subject
Project Title
Project Comments
Project Author
Project Company
Enterprise Custom Fields (Project Type)</td></tr>
<tr><td>User Defined Fields (User Category)</td><td>Enterprise Custom Fields (Resource Type)</td></tr>
</table>

Available Mappings from Microsoft Project to Web TimeSheet

Microsoft Project Field (source)	Web TimeSheet Field (target)
Project Keyword	Project Code Project Description Project Level User Defined Fields (Proj/Task Category)
Project Title	Project Code Project Description Project Level User Defined Fields (Proj/Task Category)
Project Subject	Project Code Project Description Project Level User Defined Fields (Proj/Task Category)
Project Category	Project Code Project Description Project Level User Defined Fields (Proj/Task Category)
Project Comments	Project Description Project Level User Defined Fields (Proj/Task Category)
Project Company	Project Client Project Level User Defined Fields (Proj/Task Category)
Project Work	Project Estimated Hours Project Level User Defined Fields (Proj/Task Category)
Project Cost	Project Estimated Cost Project Level User Defined Fields (Proj/Task Category)
Project Actual Hours	Project Level User Defined Fields (Proj/Task Category)
Task WBS Code	Task Description Task Code Task Level User Defined Fields (Proj/Task Category)
Task Duration	Task Estimated Hours Task Level User Defined Fields (Proj/Task Category)
Task Work	Task Estimated Hours Task Level User Defined Fields (Proj/Task Category)
Task Cost	Task Estimated Cost Task Level User Defined Fields (Proj/Task Category)
Task Priority	Task Level User Defined Fields (Proj/Task Category)
Task Unique ID	Task Code Task Level User Defined Fields (Proj/Task Category)
% Complete	Project Level User Defined Fields (Proj/Task Category) Task Level User Defined Fields (Proj/Task Category)
Enterprise Custom Fields (Project Type)	Project Code Project Description Project Estimated Hours Project Estimated Cost Project Level User Defined Fields (Proj/Task Category)

Microsoft Project Field (source)	Web TimeSheet Field (target)
Note: *When you map from Microsoft Project custom fields to Web TimeSheet User Defined Fields, calculated fields are excluded.*	
Enterprise Custom Fields (Task Type)	Task Description Task Code Task Estimated Cost Task Estimated Hours Task Level User Defined Fields (Proj/Task Category)
Note: *When you map from Microsoft Project custom fields to Web TimeSheet User Defined Fields, calculated fields are excluded.*	
Enterprise Custom Fields (Resource Type)	User Defined Fields (User Category)
Note: *When you map from Microsoft Project custom fields to Web TimeSheet User Defined Fields, calculated fields are excluded.*	

CHAPTER 8
Recommended Practices and Additional Notes

Recommended Practices

You should use the following recommended practices when transferring data between Web TimeSheet and Microsoft Project.

If you are a Microsoft Project user integrating with Web TimeSheet for the first time:

- Use Microsoft Project to create and maintain your project profile/project information
- Transfer the projects to Web TimeSheet from Microsoft Project
- Enter time against the projects in Web TimeSheet
- Only change the project information in Microsoft Project

If you are a Web TimeSheet user integrating with Microsoft Project for the first time:

- Transfer any existing Web TimeSheet project information to Microsoft Project for the first time only
- Following this initial transfer of project information, update the projects in Microsoft Project and transfer the updated projects from Microsoft Project back to Web TimeSheet
- Use Web TimeSheet to enter time and transfer only time to Microsoft Project

When you create a new project in either application, be sure to use a unique name (that is, a project name that does not already exist in either Project or Web TimeSheet). This will prevent naming conflicts, since the first time you update a project from Project to Web TimeSheet, a new project with the same name used in Microsoft Project will be created in Web TimeSheet, and vice versa.

We recommend that you create resources in Microsoft Project Server before running any updates (if you have permission to add new resources in Project Server). If you update resources from Web TimeSheet to Microsoft Project, the Integration Manager may prompt you to add resources that do not already exist.

Notes on Working with Externally Linked Projects

When working with a project in Microsoft Project that includes tasks that are linked externally, that is to a task within another project, avoid naming the externally linked task with the same name as a task present at the same level in the main project. If the tasks have the same name, data will not be transferred and the Integration Manager will log an error.

Also, note that the Integration Manager does not support the transfer of embedded projects from Microsoft Project Server.

Notes on Transferring Time Data with Web TimeSheet Billing Rates Selected

Within Web TimeSheet, users can select a billing rate when entering time against a task. However, when transferring time entries from Web TimeSheet, Microsoft Project does not support transfer of the associated billing rates. If you are tracking costs for the project in Microsoft Project, it is important to note that the Web TimeSheet billing rates will not be reflected in the cost data. However, the Integration Manager does support mapping of Web TimeSheet values to the Microsoft Project **Resource Standard Rate**, which can be used for cost tracking purposes, if desired.

Additionally, Web TimeSheet allows users to select more than one rate when entering time against a task. When these time entries are transferred, the total of all hours entered for the task, regardless of the billing rate selected, will be transferred to Microsoft Project. For example, if 5 hours are entered against `Task 1` using the `Project Manager` rate and 3 hours are entered against `Task 1` using the `Administration` rate, 8 hours will be transferred to Microsoft Project for `Task 1`.

Troubleshooting Issues involving the Integration Manager

If you encounter any of the issues listed below while using the Integration Manager, use the troubleshooting information given below each heading to resolve the issue. If any of these issues persist, contact Replicon Support. For information on how to do this, refer to *Contacting Support* on page 6.

Deleted Task Still Exists in Web TimeSheet after Update

If you have deleted a task in Microsoft Project and the corresponding task has not been deleted in Web TimeSheet after an update, verify that the task is not selected on any users' timesheets. If the task has been selected on a user's timesheet, Web TimeSheet prevents the task from being deleted, even if no time has been entered against it. Have the user select another task or delete the timesheet row and then save the timesheet. Update Web TimeSheet using the Integration Manager again and the task should be deleted from Web TimeSheet.

Task Work Values Change when New Assignment Added using MSP API

If you add an assignment using Web TimeSheet Integration Manager for MS Project Server (MSPI) your resulting Task Work field in Web TimeSheet will be different than if you added the assignment manually. This is because MSPI uses MS Project Server's application programming interface (API) tool, which uses this formula:

```
Task Work = Task Duration * 8 * Number of resources assigned to task
```

This results in Task Work being updated.

In contrast, manual entry uses this formula:

```
Task Duration = Task Work / (8 * Number of resources assigned to task)
```

This results in Task Duration being updated.

Cannot Connect to Project Server after restoring Database

If you restore the Project Server database on the Project server, you may be prevented from connecting to Project Server via the Integration Manager, and receive the following error message:

```
The Microsoft Project server needs to be configured and connected. Please
go to the Configuration tab and enter the server information, your user-
name, password and click the connect button.
```

If this issue arises, to establish a connection, you should:

1. Reinstall the RPDS Extensions on the Project server. For information on how to do this, refer to *Chapter 2, Installing Microsoft Project Server Extensions (Project Server 2003 only)* on page 9.

   Installing the RPDS Extensions creates tables and views in the database that are required to connect the Integration Manager and the Project server.
2. If you have created a dedicated username and password in your database for use in connecting to Web Timesheet, ensure that:
   - That username and password are assigned to the project database

That user has been assigned `db_owner` permission (if you are using a SQL database).