



The screenshot shows the 'Enter Time' interface in the Imaginet Timesheet application. The header includes the 'Timesheet' title, a user profile for 'Adam Barr', and a 'Logout' link. The main content area displays a table of time entries for the week of July 7-13, 2013. The table has columns for days of the week and a 'Total' column. The entries are as follows:

ID	Title	Sun Jul 07	Mon Jul 08	Tue Jul 09	Wed Jul 10	Thu Jul 11	Fri Jul 12	Sat Jul 13	Total
244	Incorrect casing for ID column in Forecast model						3		3
262	Employee Delete Bug		3						3
231	Customers with Canadian addresses not displaying properly.					3			3
250	Build Failure in Build: Nightly Fabrikam (Dev)_20130709.3				3				3
249	Service ticket creation issue					3			3
258	Weather bug			3					3
<b>Totals</b>		0	3	3	3	6	3	0	18

Below the table, there are 'Save' and 'Submit' buttons. A 'Weekly Total (all hours): 18' is displayed at the bottom right of the table area. The footer contains 'About Imaginet Timesheet' and '© 2013 Imaginet Resources Corp.'.

# Timesheet Installation Guide

This guide will show you how to install and configure Timesheet.

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# Installing Timesheet

## Installation Components

1. Timesheet MSI (Timesheet installer)
2. Reports.zip (Sample Reports)

## Installing Timesheet

### Prerequisites

1. A Windows Server with .NET 4.5 and IIS installed and configured
  - a. This can be your app tier server, but can also be any other server that can communicate with your TFS server (or VSO subscription) and database server (if your database is on another server).
  - b. You also need a web site – Timesheet will install under an existing IIS web site. This could be the Team Foundation Server website, or Default Web Site or any other web site.
2. Administrator access to the server
3. A Timesheet Service account
  - a. You'll need to select an identity under which the Timesheet Application Pool will run. This service account must also be granted SysAdmin privileges to the SQL server so that the Timesheet database and its objects may be created. While this level of access to the SQL server may be revoked after the installation is completed, it may need to be temporarily re-instated at a future time when performing product upgrades as "Alter" privileges may be required.
4. A SQL Server service instance (any edition including SQLExpress) must be installed and configured for access.
  - a. SQL server command tools must be installed on the IIS server in instances where the SQL server service instance is hosted on a separate server.
5. SysAdmin role on the database server must be assigned for the user account performing the installation as well as the Service account under which the Timesheet application pool is running.
  - a. When NOT upgrading from an older Notion Timesheet, the Timesheet installer will deploy and install the new web service but will not create a new database.
  - b. A new database will only be created for first time installations of Imagnet Timesheet.
  - c. If upgrading from a previous version of Imagnet Timesheet, then the existing database and its data will be preserved and used.
  - d. When migrating from an older version of Notion Timesheet, the Timesheet installer will create a new database and subsequently import any existing data to new database before deploying and installing the Timesheet web service.
6. If you're migrating from older versions of TFS:
  - a. The Timesheet account needs read access to the old Timesheet database for the migration.
7. If you're going to upload the sample reports:
  - a. You'll need Contributor access to your SSRS site
8. Timesheet License key
  - a. Without a license key, you can use Timesheet for free for up to 5 users.
  - b. For more than 5 users, you'll need to purchase a license key.

## Choosing to connect Timesheet to TFS or VSO

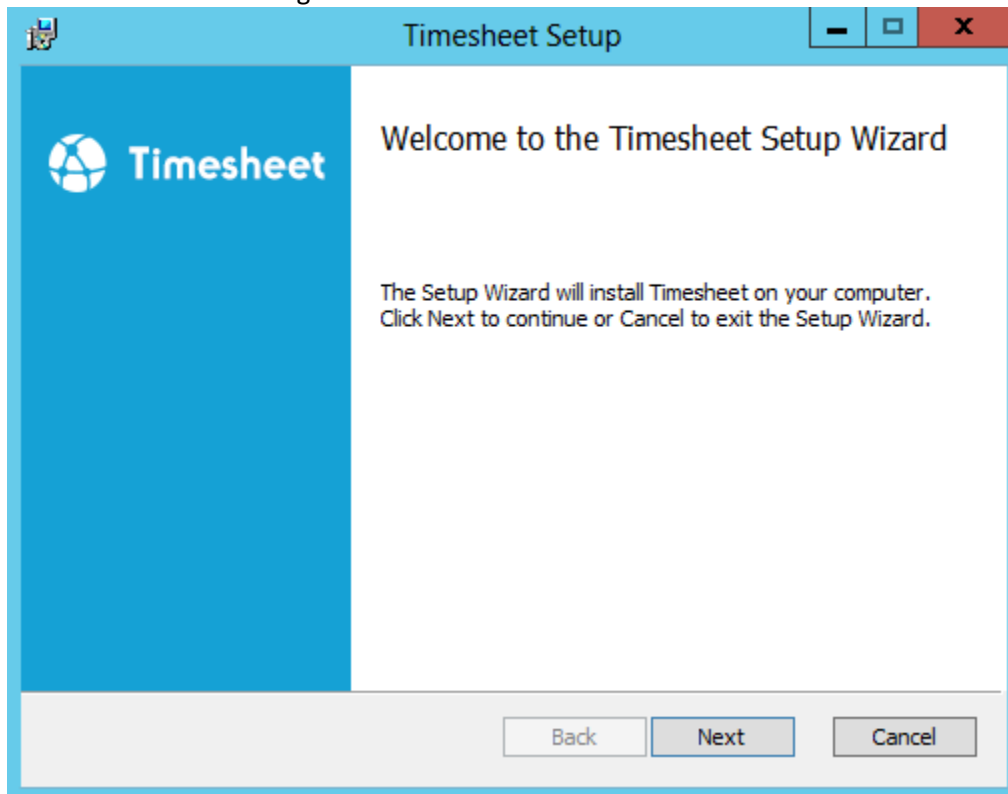
Some Timesheet features may be unavailable depending on which source control service you are using. Please refer to the following table for a more comprehensive comparison between TFS and VSO.

Features	TFS	VSO
Work Items, Version Control, & Build	Yes	Yes
Agile Product/Project Management	Yes	Yes
Test Case Management	Yes	Yes
Heterogeneous Development (Eclipse, Git)	Yes	Yes
Ease of Installation and Setup	Good	Excellent
Collaborate with anyone, from anywhere	Good	Excellent
Data stays inside your network	Yes	No
Process Template & Work Item Customization	Yes	No
SharePoint Integration	Yes	No
Data Warehouse & Reporting <sup>(1)</sup>	Yes	No
CodeLens Support	Yes	No
Cloud Load Testing	No	Yes
Application Insights	No	Yes
Always running the latest version of TFS	No	Yes

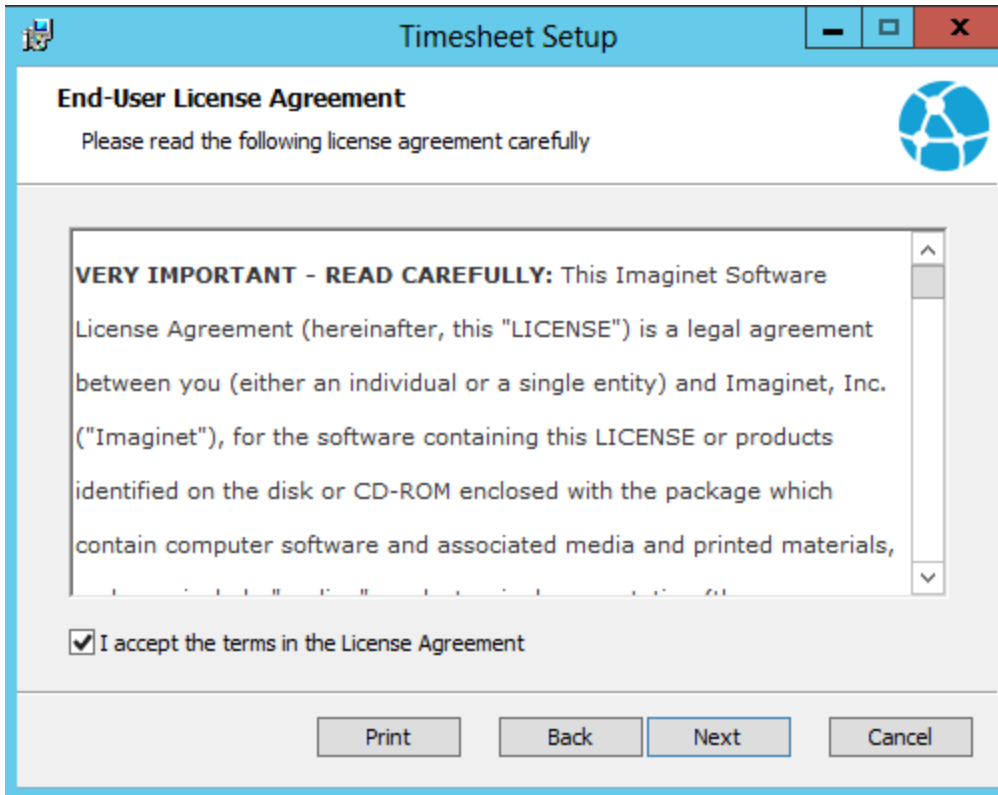
<sup>(1)</sup> Included reports are only supported when Timesheet is connected to TFS

## Installation Process

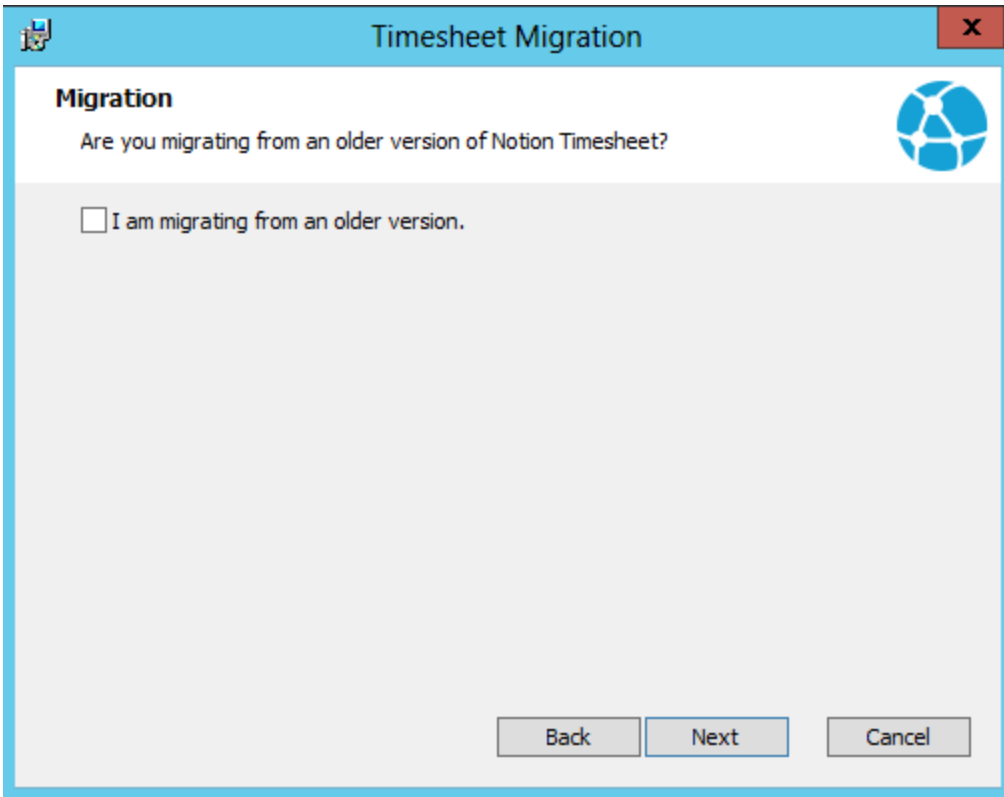
1. Copy the MSI to your IIS server. Not that this does not have to be your TFS server, but it can be. Also, you don't have to have SQL Server installed on this machine – but you'll need it installed and configured on a server somewhere.
2. Un-install any previous versions of Timesheet by using the “Programs and features” control panel applet.
3. Run the installer MSI by double-clicking on it.
4. You'll see a Welcome Page. Click Next.



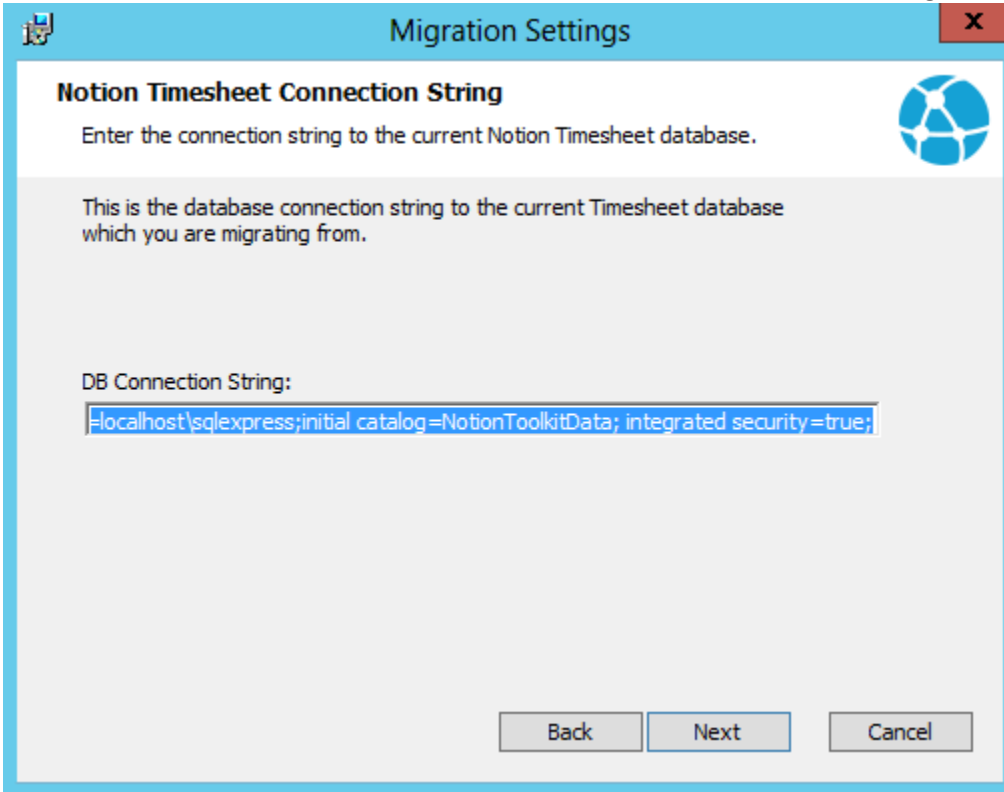
5. Read and accept the EULA and click Next.



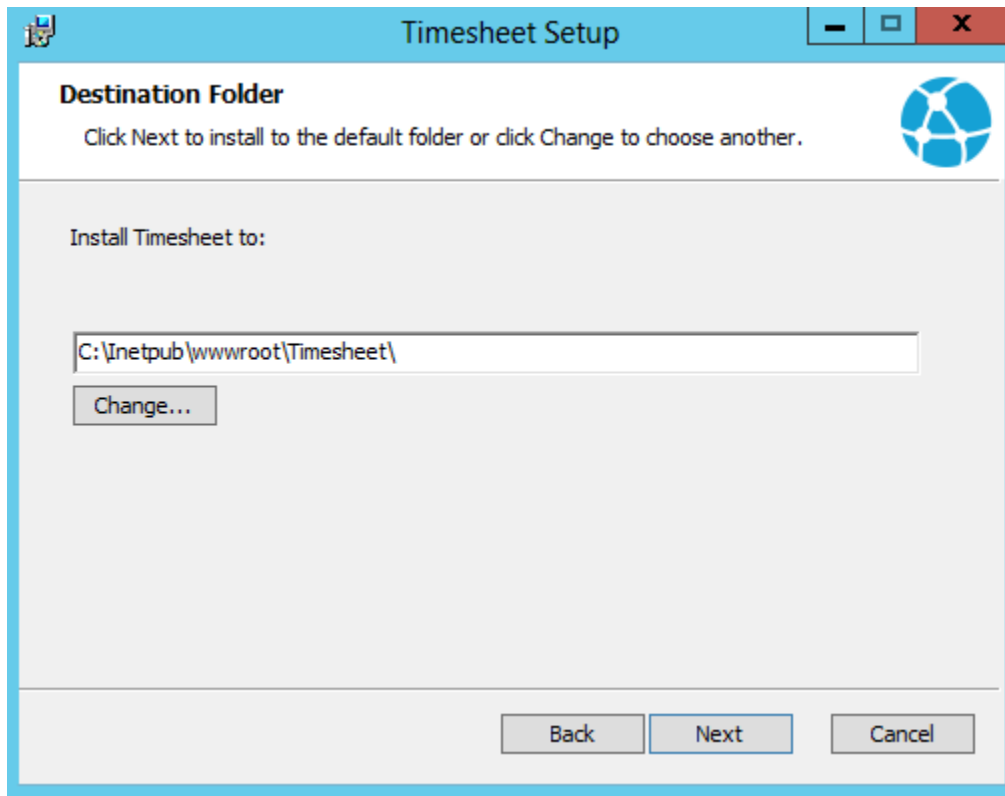
6. If you're migrating from a previous version of Notion Timesheet and you want the old Timesheet data to be migrated, then check the "I am migrating from an older version." checkbox and click Next.



7. MIGRATION ONLY: Enter the old Notion Timesheet database connection string.

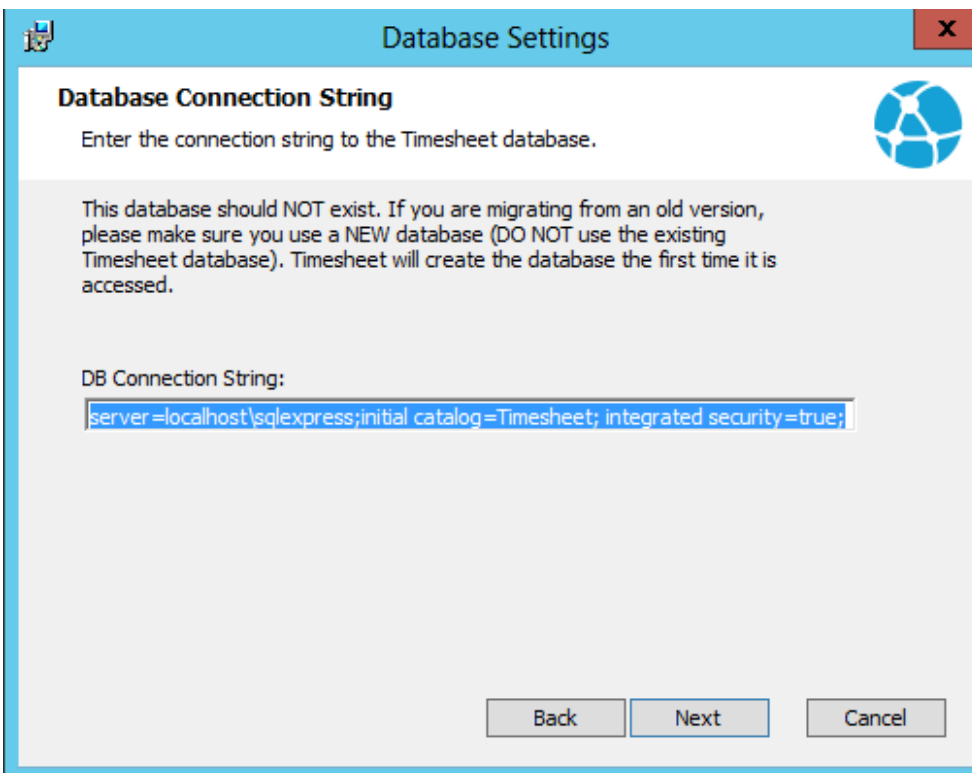
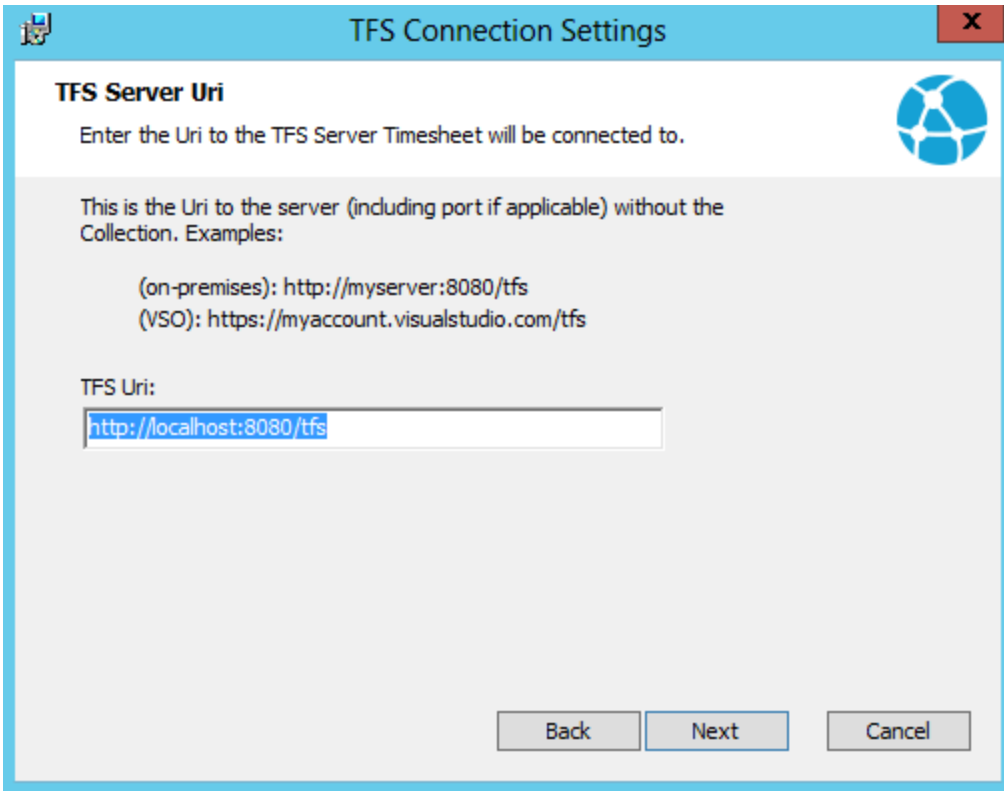


8. Select a folder to install Timesheet to and click Next. You can change the folder by clicking on the "Change..." button and selecting a new location.

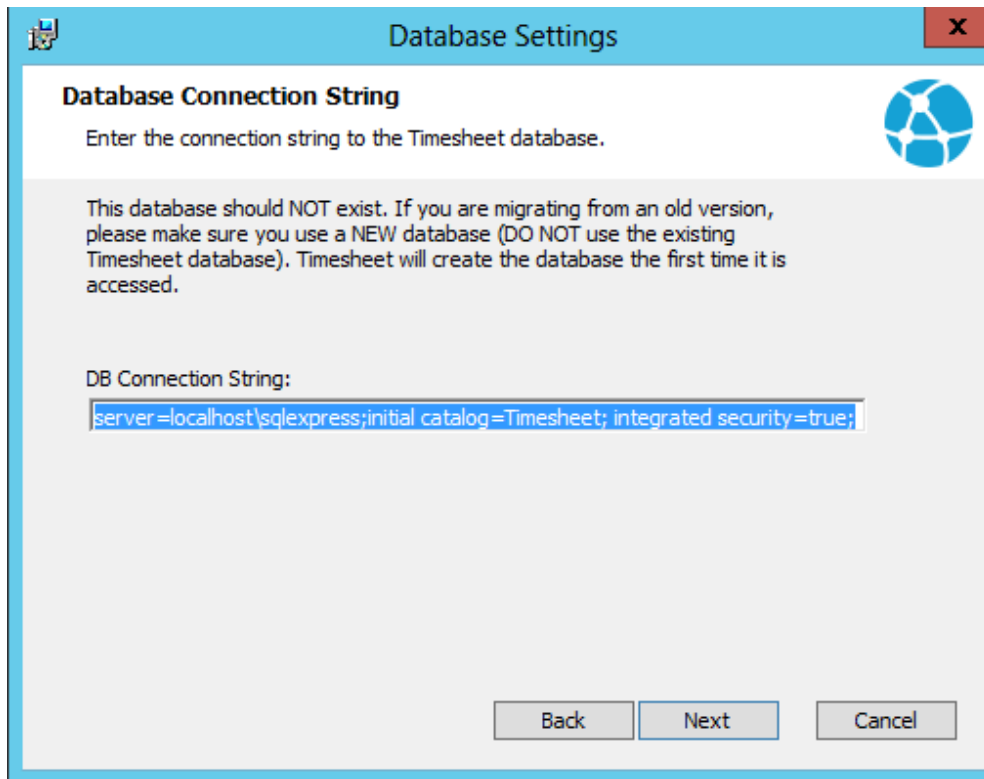


9. Enter the Uri of your TFS server. Note that this is the Uri to the server (and virtual directory) and not to a specific Team Project Collection.

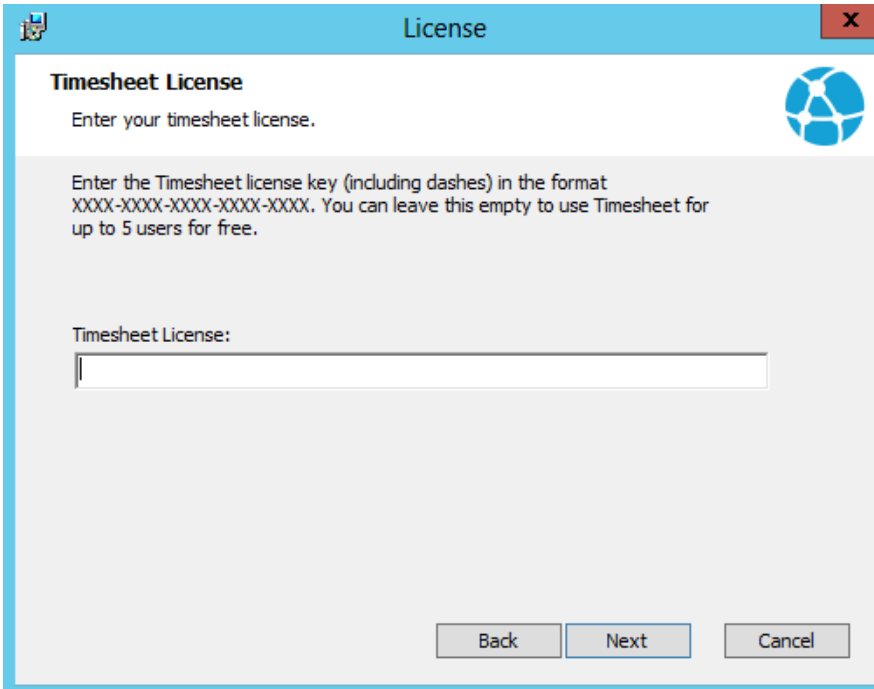




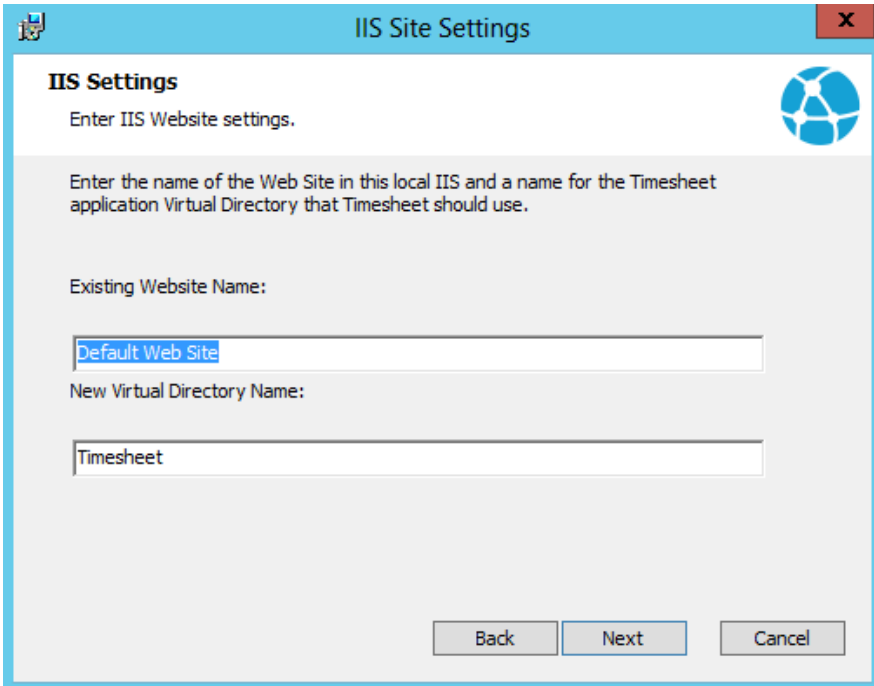
10. Enter a connection string for the New Timesheet database. Note this must specify the server and a database that does not exist. The Installer will create a new Timesheet database only when migrating from an older version of Notion Timesheet.



11. Enter the Timesheet license key (if you have one). If you leave this empty, you'll be able to use Timesheet for up to 5 users for free.



12. Enter the name of an existing IIS site you wish Timesheet to live under, as well as a virtual directory name. Timesheet installer will use the existing website and create a new virtual directory (and application) under that website.



13. Enter setting for the Timesheet IIS Application Pool. The Timesheet installer will create a new Application Pool for the Timesheet application. If you are on a Workgroup, you can enter the name of the IIS server as the Domain.

**Application Pool Settings**

Enter Application Pool Settings.

Timesheet will create a new Application Pool. Please enter an identity (this identity should have rights to create the database you specified earlier).

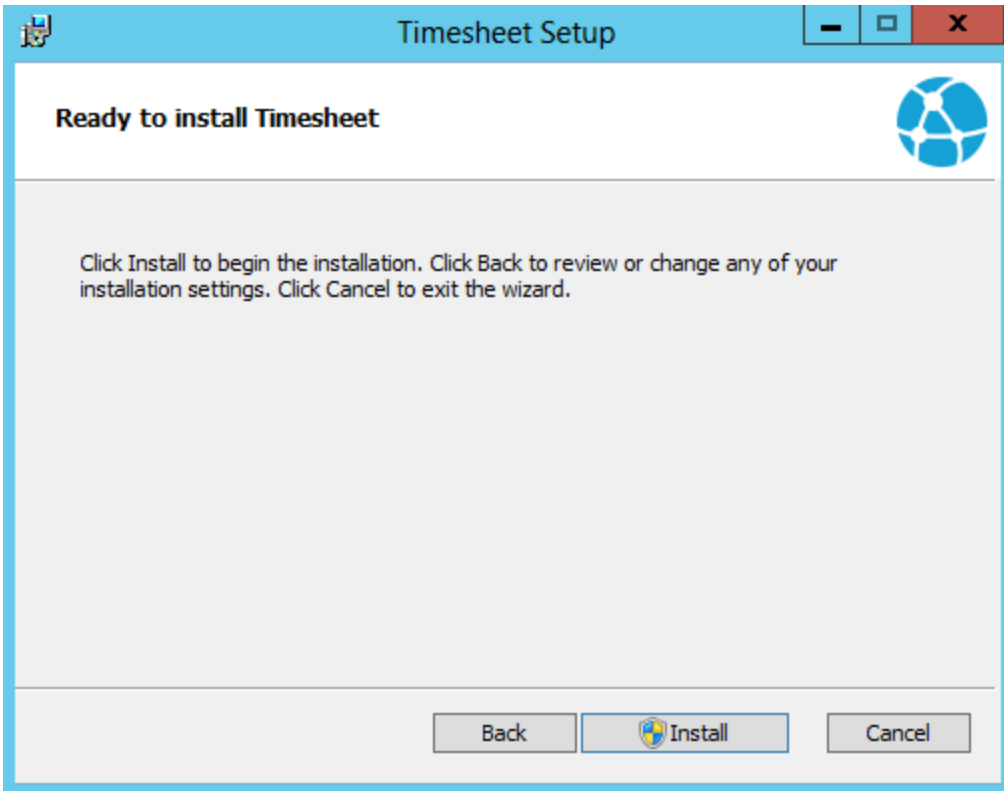
App Pool name:

Domain: (use the name of this machine if the user is a local account)

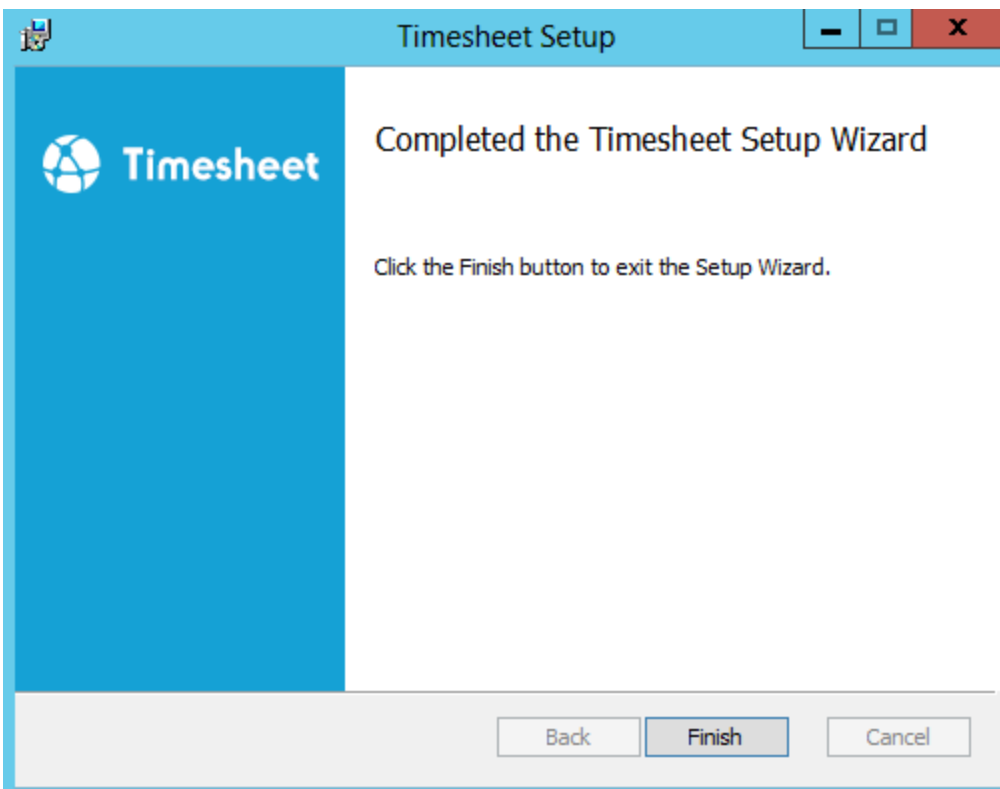
Username:

Password:

14. Click Install on the confirmation page to begin the install.



15. This may take a few minutes, especially if you are migrating from an older version of Timesheet.
16. Once complete, click Finish to exit the installer.



## Configuring Timesheet

Timesheet does not require too much configuration. If you change your TFS server or license key, you can configure those settings. The only other configuration is the completed and remaining work fields.

To configure these settings, open the Web.config file in the Timesheet installation folder. Then browse to the appSettings section. You'll see 3 or 4 keys (you may not have a License key):

```
<add key="RemainingWorkFieldRef" value="Microsoft.VSTS.Scheduling.RemainingWork" />
<add key="CompletedWorkFieldRef" value="" />
<add key="TfsUrl" value="http://vsalm:8080/tfs" />
<add key="License" value="XXXX-XXXX-XXXX-XXXX-XXXX"/>
```

- To change the TFS connection, edit the value of the TfsUrl key.
- To change the License, edit the value of the License key. If you have just purchased a license and did not enter one when installing Timesheet, then you can add the License key.

To toggle the auditing feature ON or OFF, the following key value must be added (if missing) or appropriately changed to reflect the desired auditing state:

```
<add key="AuditsEnabled" value="false" />
```

Please note that enabling the auditing feature can cause additional performance and storage overheads and should therefore remain inactive unless required. If left in active state (`value="true"`), please ensure that the audit log table size is frequently monitored and purged as required. By default, this key value will be missing and thus equivalent to inhibiting the audit feature (`value="false"`).

## Enabling the Timesheet Keep-Alive feature

The “Keep-Alive” feature prevents a user session from ever timing out, thus avoiding any timeouts after the initial login event. While this is a convenient feature to have, in some circumstances it can also be a security risk particularly when accessing Timesheet from an untrusted device/computer.

To enable and configure this feature, open the Web.config file in the Timesheet installation folder. Then browse to the appSettings section.

**WARNING:** This feature is disabled by default and should only be enabled when the security implications are well understood.

Three “Keep-Alive” modes can be configured:

### Keep-Alive:Disabled

```
<!-- KEEP ALIVE KEY -->
<add key ="KeepSessionAlive" value="0"/>
<add key ="ForceKeepAlive" value="false"/>
```

- Setting the “Keep-Alive” ping to 0 (zero) will disable this feature (default).
- “ForceKeepAlive” value has no effect when the feature is turned off.
- On the client-side, the Timesheet UI should display only the user name and the log-off link.



### Keep-Alive:Enabled

```
<!-- KEEP ALIVE KEY -->
<add key ="KeepSessionAlive" value="30"/>
<add key ="ForceKeepAlive" value="false"/>
```

- Setting the “Keep-Alive” ping to a value (X) that is greater than 0, will enable the feature and send a keep-alive “ping” request every (X) seconds. In this example, a ping will be sent every 30 seconds (recommended).
- When “ForceKeepAlive” is set to false, clients can enable or disable the feature via the UI.
- On the client-side, the Timesheet UI should display a “Keep session alive” checkbox next to the user name and the log-off link.



### Keep-Alive:Force Enabled

```
<!-- KEEP ALIVE KEY -->
<add key ="KeepSessionAlive" value="30"/>
```

```
<add key ="ForceKeepAlive" value="true"/>
```

- Setting the “Keep-Alive” ping to 30 will enable the feature and send a keep-alive “ping” request every 30 seconds.
- When “ForceKeepAlive” is set to true, clients cannot disable the Keep-Alive feature via the UI.
- On the client-side, the Timesheet UI will display a disabled “Keep session alive” checkbox next to the user name and the log-off link.



### Remaining and Completed Work

When you enter time into Timesheet for a work item, Timesheet will attempt to decrease the remaining work field on the work item. If you are tracking completed work (Note: this field is not present in the out-of-the-box Scrum template in TFS) then you will have to configure Timesheet to enable this. Also, if you are using some other custom field for remaining work, then you’ll need to update the value setting.

Both these fields are configured in the app config (see the RemainingWorkFieldRef and CompletedWorkFieldRef settings above) and the value must be set to the reference for the remaining and completed work fields respectively.



## Troubleshooting

Please review this section before submitting a bug report or contacting timesheet support. Please attach any logs or screenshots when submitting a bug report.

In order to provide added insight into any troubleshooting effort, you may also choose to enable the Timesheet auditing feature as instructed in the previous section (Configuring Timesheet).

An additional diagnostic and error tracking feature can also be activated by decorating the URL with “elmah” as illustrated in the following example:

<http://myTimesheetServerName/Timesheet/elmah>

### *Diagnosing Installation Failures*

If the installer fails, you will be able to retrieve the installer log file. If there is no log file, then open a command prompt and run the installer using the following command:

```
msiexec.exe /i pathToInstaller /l*v installer.log
```

where *pathToInstaller* is the path to the Timesheet MSI file. This will launch the installer and create a log file in the current directory called “installer.log”. You may need to supply the full path to msiexec.exe if it is not in your path.

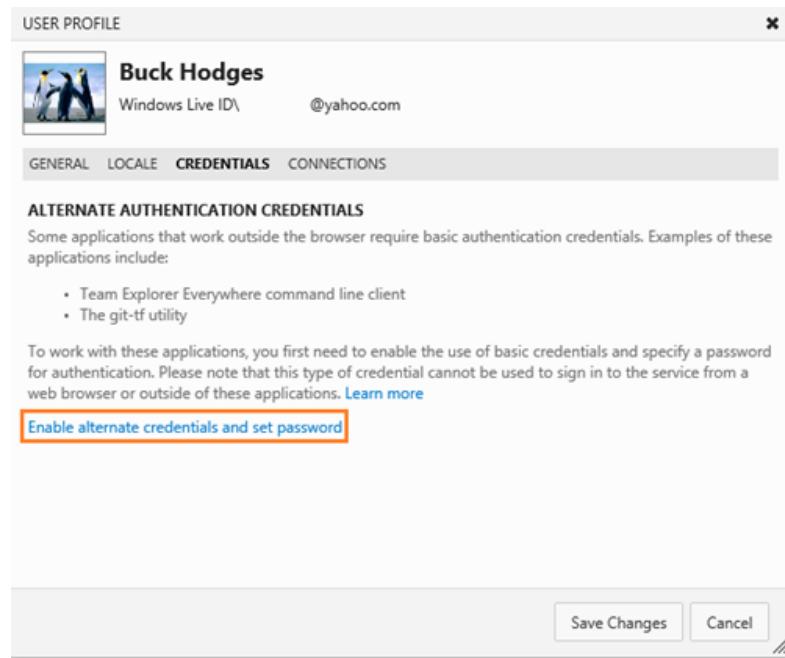
## Common Issues and Solutions

### *Setup and Installation - Error TF30063 - You are not authorized to access*

This issue occurs when attempting to login to the Timesheet application while integrating with Visual Studio Online.

#### **Resolution**

To resolve this issue please enable alternate credentials on your Visual Studio Online account as illustrated below:



### *Error 503 - App Pool stopping or not running*

Timesheet service does not work. IIS application pool assigned to Timesheet stops.

#### **Additional Analysis**

- Review the Windows Application event log and locate any entries that include errors or warnings related to Timesheet and IIS.
- Browse to any other web site that is hosted in the current IIS instance and verify that the website(s) can be browsed without issues

#### **Resolution**

1. Define a new account that will essentially be used as a service account for this AppPool. While this new this new account can still be a member of the administrators group (not recommended), It is more important that it be a member of the IIS\_IUSRS group and any

other security local (or domain) group that grants it the effective security and policy rights that it requires.

2. You will need to use the local security policy editor (administrative tool) and add the "logon as batch" privilege to the account you are using as the security context for this AppPool. This is performed under the User Rights Assignment in the local security policy tool. If required, you may also add the "Logon as service" and "Create Token Object" rights.
3. Restart IIS and verify that the application pool is running. Then browse to the web site where the timesheet service instance is installed to verify that it is operational.

### *Error 503 - For installations where sharepoint is co-installed with IIS*

You get a 503 error when accessing timesheet hosted on an IIS server where SharePoint is also installed.

#### **Resolution**

Log on to your TFS Server and open a command prompt as administrator.

```
cd to \windows\system32\inetsrv
```

Now enter:

```
appcmd.exe set config -section:s
```

### *Error when authenticating a user - Not authorized*

You get a "Not authorized" error even for valid and active users.

#### **Resolution**

These types of errors can be caused by an "alias" issue.

Change the TfsUri setting in Web.config to http://tfsserver.full.domain:8080/tfs (where tfsserver.full.domain is the full FQDN to the tfs server - like tfs.ex.local).

This occurs when you've set a Kerberos alias to the TFS machine

### *Cannot install Timesheet.VSExtensions in Visual Studio 2012-2013 Express*

The installation of Timesheet.VSExtensions fails when installing with Visual Studio Express (2012-2013) as follows:

- Supported Products :
- Microsoft.VisualStudio.Pro

```
-          Version : [12.0]
-
- References   :
- -----
- Identifier  : Microsoft.VisualStudio.MPF.12.0
- Name       : Visual Studio MPF 12.0
- Version    : [12.0]
- MoreInfoURL :
- Nested     : No
-
-
- Searching for applicable products...
- Found installed product - Microsoft Visual Studio Express 2013 for Windows
- Found installed product - Global Location
- Found installed product - ssms
- VSIXInstaller.NoApplicableSKUsException: This extension is not installable on any currently
installed products.
  at VSIXInstaller.App.InitializeInstall()
  at System.Threading.Tasks.Task.InnerInvoke()
  at System.Threading.Tasks.Task.Execute()
```

## Resolution

Visual Studio Express (2012 and 2013) does not support the use of Visual Studio Extensions and therefore The Timesheet extensions cannot be installed.