



VERSION 9.21 INSTALLATION GUIDE

www.pacifictimesheet.com

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INTRODUCTION

Pacific Timesheet is a web-based timesheet application that supports all major web browsers. The full package bundles both a web server (Tomcat) and a database server (MySQL). You can optionally connect to your own database server if desired (see System Requirements below).

You can also deploy Pacific Timesheet to your own Java J2EE application server such as IBM WebSphere using the WAR package. Using the WAR package means you will also need to provide your own database server (see System Requirements below).

Pacific Timesheet is available in SaaS (Software as a Service) form, requiring no server software installation on your part. You can learn more at <http://www.pacifictimesheet.com/>.

BUNDLED SOFTWARE

The full Pacific Timesheet package bundles the following third-party components:

Component	Version
Web Server	Apache Tomcat 5.5.23
Database	MySQL 5.0.22 Administrative login/password: root/timesheet
Java	Java 1.7.0_55

LICENSE KEY

A temporary 10-employee license is generated when the product is installed. You can purchase a non-expiring license along with a support contract by contacting your Pacific Timesheet reseller or sales@pacifictimesheet.com, or visiting www.pacifictimesheet.com. When ordering a new license you will be asked to provide the host computer name, which can be found on System > General > License page.

SYSTEM REQUIREMENTS

Pacific Timesheet is a web-based application and supports the following browsers:

Browser	Version
Apple Safari	4.0 or later
Google Chrome	3.0 or later
Microsoft Internet Explorer	7.0 or later
Mozilla Firefox	3.0 or later

To install the server you must have a system that meets or exceeds the following requirements:

Component	Minimum Requirements
Operating system	Windows 8 Windows 7 Windows Vista Windows Server 2012 Windows Server 2008 Windows Server 2003 Linux (Ubuntu, SUSE, Red Hat, Debian) Macintosh OSX
Hard disk	250 MB minimum of available hard disk space for the program files. Additional space is needed to store timesheets and other employee data (see below).
Memory	2 GB of RAM minimum
Computer and processor	PC or Macintosh with Intel Pentium 4-compatible 2 GHz processor

In general, hard disk space is related to the number of timesheets created annually. A timesheet typically requires about 150K of storage. Based on this value the following table will help you determine the amount of hard disk usage you can expect annually:

Timesheets Per Year	Hard Disk Allocation Per Year
500	75 MB
5,000	750 MB
10,000	1.5 GB
20,000	3 GB

The setup program installs a database. You can also configure the application to use an external database you provide. The following databases are supported:

Database	Version
Microsoft SQL Server	SQL Server 2005, 2008 and 2012 with Mixed Mode Authentication (Windows Authentication and SQL Server Authentication) enabled.
MySQL	Version 5.0.22 or later.
Oracle	Oracle 9i or later.



INSTALLING PACIFIC TIMESHEET ON WINDOWS

INSTALLING PACIFIC TIMESHEET (WINDOWS)

Important Note: This is a command-line installation. All operations are done from the command line, and you will need to open a command prompt as an administrator. You can do this by going to the Start Menu > All Programs > Accessories and right-mouse clicking on Command Prompt. Then choose the "Run as Administrator" option.

Follow these steps to install the Pacific Timesheet service:

1. Download the zip file to the appropriate computer using the download link provided to you.
2. Extract the zip file. Open the resulting timesheet-win directory, and move the **PacificTimesheet** folder to an appropriate location, such as into "C:\Program Files (x86)". You want to place it on a local drive: do not copy it onto a mapped drive or a network drive.
3. Open a command prompt as an administrator (see note above) and change to the installation directory, for example:

```
cd C:\Program Files (x86)\PacificTimesheet
```

Now execute the setup command:

```
bin\setup
```

You will be asked to enter the port numbers for the web server and database server. If you are unsure just use the default values - it will check to make sure they are not already in use by another server.

4. Verify the service is running by opening a browser on the same computer and loading the following page:

<http://localhost>

If you did not use port 80 for the HTTP port you will need to append it, e.g.:

<http://localhost:81>

If the page loads successfully you are good to go! If the page doesn't load refer to the troubleshooting section at the end of this document.

5. Pacific Timesheet is installed as a service and will start automatically when the computer starts. You can manually stop/start Pacific Timesheet from the Services control panel: go to the Start menu > Control Panel > System and Security > Administrative Tools > Services. There will be a service named "Pacific Timesheet" which you can select and stop/start.

UPDATING PACIFIC TIMESHEET (WINDOWS)

Follow these steps to update the Pacific Timesheet service via a new war file. The Pacific Timesheet service will be restarted so you will generally want to perform this during an off-peak period of time.

Important Note: This is a command-line operation – many of the steps are done via the command line, and you will need to open a command prompt as an administrator. You can do this by going to the **Start Menu > All Programs > Accessories** and right-mouse clicking on **Command Prompt**. Then choose the **“Run as Administrator”** option.

1. Open a command prompt as an administrator (see note above) and CD to the installation directory, for example:

```
cd C:\Program Files (x86)\PacificTimesheet
```

2. Verify that your Pacific Timesheet installation is using **Java 1.8.0_152** or later. Execute the following command in the command prompt:

```
java\bin\java -version
```

If your version is older than **1.8.0_152** you will need to update your installation. Follow these instructions:

- a) On the computer where the Pacific Timesheet service is installed, download the latest Pacific Timesheet Java to the same computer into a temporary location:

https://download.pacifictimesheet.com/java-win64-1.8.0_191.zip

- b) Stop the Pacific Timesheet service using the command prompt:

```
net stop "pacific timesheet"
```

- c) In the Pacific Timesheet installation directory, rename the existing java directory by appending “_bak” to it. For example, you would now have:

```
C:\Program Files (x86)\PacificTimesheet\java_bak
```

- d) Extract java-win64-1.8.0_152.zip and copy the contained “java” directory into your Pacific Timesheet installation directory. You should now have paths such as:

```
C:\Program Files (x86)\PacificTimesheet\java
```

```
C:\Program Files (x86)\PacificTimesheet\java\bin
```

```
C:\Program Files (x86)\PacificTimesheet\java\jre
```

...

- e) That completes the update of your Java – you do **not** need to start the Pacific Timesheet service before proceeding to the next step.

3. On the computer where the Pacific Timesheet service is installed, download the latest timesheet.war file **into** your Pacific Timesheet installation directory:

<https://download.pacifictimesheet.com/timesheet.war>

The resulting path to the downloaded timesheet.war file should be something like "C:\Program Files (x86)\PacificTimesheet\timesheet.war".

4. In the command prompt, make sure your current directory is still the installation directory, for example:

```
cd C:\Program Files (x86)\PacificTimesheet
```

Now execute the deploywar command:

```
bin\deploywar
```

Your results should be something like the following:

```
Update your Pacific Timesheet service (y/n)?
```

```
Installing new WAR file:
```

```
Stopping service...
```

```
...
```

```
Starting service...
```

```
Done - install completed successfully.
```

5. Load the Pacific Timesheet login page to verify that the Pacific Timesheet service is running.



UNINSTALLING PACIFIC TIMESHEET (WINDOWS)

Follow these steps to uninstall the Pacific Timesheet service:

1. Open a command prompt as an administrator (see note above) and change to the installation directory, for example:

```
cd C:\Program Files (x86)\PacificTimesheet
```

Now execute the setup command with the “-uninstall” option:

```
bin\setup -uninstall
```

2. The above command removes Pacific Timesheet as an auto-starting service, and then stops the service. You will still need to manually delete the PacificTimesheet installation directory as the script will not delete any files.

CHANGING PACIFIC TIMESHEET PORTS (WINDOWS)

Follow these steps to change the web (HTTP) or database (MySQL) ports used by the Pacific Timesheet service:

1. Stop the Pacific Timesheet service from the Services control panel (Start menu > Control Panel > System and Security > Administrative Tools).
2. Open a command prompt as an administrator (see note above) and change to the installation directory, for example:

```
cd C:\Program Files (x86)\PacificTimesheet
```

Now execute the setports command:

```
bin\setports
```

The setports command will let you enter new web and database ports. The ports you choose will be checked to make sure they are not in use by another server.

3. Start the Pacific Timesheet service. Load Pacific Timesheet in a browser using the new port to verify it is running correctly, e.g.

<http://localhost:81>

INSTALLING PACIFIC TIMESHEET ON LINUX

Important Note: This is a command-line installation. All operations are done from a terminal. Before executing any commands below you should be logged in as root. If the root account is not available you must prefix the '**sudo**' command before each command, or you will get a "**Permission denied**" error.

32/64 Bit Note: Pacific Timesheet is 100% Java, and can run on both 32-bit and 64-bit operating systems. However, the bundled Java and MySQL executables in the full installation package are 32-bit. Some Linux distros, such as Ubuntu 64, don't have full backwards support for 32 bit applications by default, so you may need to update your system to add in the 32-bit support. For **64-bit Ubuntu** you will need to install the 32-bit support by executing the following commands:

```
sudo apt-get update
```

```
sudo apt-get install ia32-libs
```

If you do not do this you may get a "**java: not found**" error message when running the scripts below.

INSTALLING PACIFIC TIMESHEET (LINUX)

1. Download the gzip file to the appropriate computer using the download link provided to you. Open a terminal as root (or use the sudo command - see the note above), and copy the gzip file into the /opt directory, e.g.:

```
sudo cp /home/mbrando/Downloads/timesheet-linux.tar.gz /opt
```

2. Change to the /opt directory:

```
sudo cd /opt
```

Now execute the following two commands to extract the .tar.gz file:

```
sudo gunzip timesheet-linux.tar.gz
```

```
sudo tar -xvf timesheet-linux.tar
```

Your resulting directory structure should look something like:

```
/opt/PacificTimesheet
```

```
/opt/PacificTimesheet/bin
```

```
/opt/PacificTimesheet/java
```

```
/opt/PacificTimesheet/mysql
```

```
...
```

3. Change to the /opt/PacificTimesheet directory:

```
sudo cd /opt/PacificTimesheet
```

Now execute the setup script:

```
sudo ./bin/setup.sh
```

You will be asked to enter the port numbers for the web server and database server. If you are unsure just use the default values - it will check to make sure they are not already in use by another server.

4. Verify the service is running by opening a browser on the same computer and loading the following page:

<http://localhost>

If you did not use port 80 for the HTTP port you will need to append it, e.g.:

<http://localhost:81>

If the page loads successfully you are good to go! If the page doesn't load refer to the troubleshooting section at the end of this document.

5. Pacific Timesheet is installed as a service and will start automatically when the computer starts. You can manually stop Pacific Timesheet from the command line with the following command:

```
sudo /opt/PacificTimesheet/bin/service.sh -stop
```

You can start it similarly:

```
sudo /opt/PacificTimesheet/bin/service.sh -start
```

UPDATING PACIFIC TIMESHEET (LINUX)

Follow these steps to update the Pacific Timesheet service via a new war file. The Pacific Timesheet service will restart so you will generally want to perform this during an off-peak period of time.

1. Download timesheet.war into the PacificTimesheet installation directory using the download link provided to you. The final path should be something like "/opt/PacificTimesheet/timesheet.war".
2. Open a terminal as root (or use the sudo command - see the note above) and change to the installation directory:

```
sudo cd /opt/PacificTimesheet
```

Now execute the deploywar script:

```
sudo ./bin/deploywar.sh
```

Your results should be something like the following:

```
Update your Pacific Timesheet service (y/n)?
```

```
Installing new WAR file:
```

```
Stopping service...
```

```
...
```

```
Starting service...
```

```
Done - install completed successfully.
```

3. Load the Pacific Timesheet login page to verify that the Pacific Timesheet service is running.

UNINSTALLING PACIFIC TIMESHEET (LINUX)

Follow these steps to uninstall the Pacific Timesheet service:

1. Open a terminal as root (or use the sudo command - see the note above) and change to the installation directory:

```
sudo cd /opt/PacificTimesheet
```

Now execute the setup script with the “-uninstall” option:

```
sudo ./bin/setup.sh -uninstall
```

2. The above command removes Pacific Timesheet as an auto-starting service, and then stops the service. You will still need to manually delete the PacificTimesheet installation directory as the script will not delete any files.

CHANGING PACIFIC TIMESHEET PORTS (LINUX)

Follow these steps to change the web (HTTP) or database (MySQL) ports used by the Pacific Timesheet service:

1. Open a terminal as root (or use the sudo command - see the note above) and change to the installation directory:

```
sudo cd /opt/PacificTimesheet
```

Now stop the Pacific Timesheet service:

```
sudo ./bin/service.sh -stop
```

2. Once the service is stopped execute the setports script:

```
sudo ./bin/setports.sh
```

The setports script will let you enter new web and database ports. The ports you choose will be checked to make sure they are not in use by another server.

3. Start the Pacific Timesheet service:

```
sudo ./bin/service.sh -start
```

Once the service has started load Pacific Timesheet in a browser using the new port to verify it is running correctly, e.g.

<http://localhost:81>

3RD PARTY J2EE APPLICATION SERVER DEPLOYMENT

The Pacific Timesheet allows you to run Pacific Timesheet inside an existing J2EE application server, such as IBM WebSphere. The WAR (Web Application Archive) file package, timesheet.war, can be installed (or deployed) into a standard J2EE application server supporting Java 1.6 or later, such as the following:

- Tomcat 5.5 or later
- IBM WebSphere
- BEA Weblogic
- JBoss

Note: Your Java environment for your application server will require a minimum of **512MB** of memory. Each application server configures this differently, but here is an example startup script for Linux Tomcat that specifies the memory argument, Xmx, as part of the JAVA_OPTS environment variable:

```
#!/bin/sh
JAVA_HOME=./java
JRE_HOME=./java
JAVA_OPTS="-Xmx512m -Xrs -Djava.awt.headless=true"
CATALINA_HOME=./tomcat
export JAVA_HOME
export JRE_HOME
export JAVA_OPTS
export CATALINA_HOME
$CATALINA_HOME/bin/startup.sh > /dev/null &
```

3RD PARTY J2EE APPLICATION SERVER DEPLOYMENT

1. Install or deploy timesheet.war in the manner appropriate for your application server. For instance, with the open source Tomcat application server, you simply copy timesheet.war into the webapps directory where Tomcat is installed.

For IBM WebSphere or other application servers that ask for the context root enter “/timesheet” (without the quotes).

2. Create the Pacific Timesheet database. Refer to the section below on [Using an External Database](#).
3. Start the Pacific Timesheet application in the manner suitable for your application server.

4. Verify Pacific Timesheet is working correctly by opening a browser and going to the following address:

`http://localhost/timesheet`

You will need to specify a port number if you are not running the application on HTTP port 80, for example:

`http://localhost:8080/timesheet`

If you do not see the Pacific Timesheet login page then refer to the troubleshooting section below.



3RD PARTY J2EE APPLICATION SERVER UPDATE

Updating an existing Pacific Timesheet war file installation basically involves just redeploying timesheet.war, but you need to back up the timesheet configuration file first, as this has the database connection settings.

1. Make a backup of the timesheet configuration file:

```
<deploy-directory>/timesheet/WEB-INF/timesheet-config.xml
```

Where <deploy-directory> should be replaced by the location where the timesheet.war file was deployed to, for instance:

```
/opt/tomcat/webaps/timesheet/WEB-INF/timesheet-config.xml
```

2. Redeploy timesheet.war as appropriate for your application server. For Tomcat the safest way is to stop the Tomcat service, delete the old timesheet.war and timesheet directory, copy in the new timesheet.war and restart the Tomcat service.
3. Stop the application server, and copy back in the backup version of timesheet-config.xml, replacing the existing one that was created by redeploying.
4. Start the application server and verify Pacific Timesheet is working properly, as described above in the section on installing timesheet.war.

USING AN EXTERNAL DATABASE

If you are not using the bundled MySQL database, you will need to have your own database server and create the Pacific Timesheet database schema. See the [System Requirements](#) section for information on supported databases and versions. Follow these steps create a new Pacific Timesheet database schema:

1. Make sure that the Pacific Timesheet service is running, then open the following page in your browser:

`http://localhost/timesheet/system/db-show.do`

Replace localhost with the host name or IP address of your computer that Pacific Timesheet is installed on. You will also need to specify a port number if you are not running the application on HTTP port 80, for example:

`http://localhost:8080/timesheet/system/db-show.do`

You should see the following page, showing your current database schema:

Schema		Edit	New Schema
Database Type:	MySQL		
Server Address:	localhost		
Server Port:	3316		
Schema Name:	timesheet		
Login Name:	timesheet		
Password:	*****		

2. Click the **New Schema** button to configure a new Pacific Timesheet database schema:

New Schema		Test Connection	Create	Cancel
Database Type:	MySQL			
*Server Address:	localhost			
Server Port:	3316			
*Admin Login:				
Admin Password:				
*New Schema Name:				
*New Login:				
New Password:				
Confirm Password:				

* Required

Enter the appropriate values for your new Pacific Timesheet database:

Database Type	The type of database, such as MySQL, Microsoft SQL Server or
---------------	--

	Oracle.
Server Address	The TCP/IP address or host name of the server running the database software, for example “192.168.0.100” or “db.myco.com”.
Server Port	The TCP/IP port number of the database software. It will initially be set to the default value appropriate for the type of database chosen, for example 1521 for Oracle, 1433 for Microsoft SQL Server and 3306 for MySQL. Note: The default server port for the bundled MySQL database is 3316 .
Oracle SID	The Oracle Server Identifier, for example “ORCL”. It is only required for Oracle databases.
Admin Login	The database admin login, for example “system”, “sa”, “root”, etc. As you will be creating a new database you need to provide a database login with full administrative privileges. This admin login is just used to execute the database creation commands and will not be stored anywhere. Note: The admin login for the bundled MySQL database is root .
Admin Password	The password for the admin login. Note: The admin password for the bundled MySQL database is timesheet .
New Schema Name	The name of the new Pacific Timesheet database schema you wish to create.
New Login	The database login to use for this new database. This will be created if it doesn’t already exist. This should not be the same as the admin login.
New Password	The password for the new database login. The new password must meet the following criteria 1. The password does not contain all or part of the new login name.

	<p>2. The password is at least eight characters long.</p> <p>3. The password contains characters from three of the following four categories:</p> <ul style="list-style-type: none"> ○ Uppercase letters (A through Z) ○ Lowercase letters (a through z) ○ Digits (0 through 9) ○ Non-alphanumeric characters such as ! \$ # %
(Confirm)	Enter the new password again to confirm it.

Clicking the **Create** button will create the new database, then update Pacific Timesheet's configuration to use this new database.

Note that any database that Pacific Timesheet might have been using prior to this new database will still exist. You can switch back to it by clicking the **Edit** button and entering in the appropriate values. If you wish to delete the prior database you will need to do this using the appropriate vendor-specific database tool.

3. Restart Pacific Timesheet and verify that it is working by logging in as usual.



SUPPORT

If you run into any problems installing or using Pacific Timesheet there are several ways to reach the friendly and responsive support staff at Pacific Timesheet:

Email	support@pacifictimesheet.com
Phone	866-289-5719 Mon-Fri 8AM – 5PM Pacific Time USA

If emailing support about a product error it is a good idea to create a ZIP file of the <pacific-timesheet-install-dir>/tomcat/logs directory and attach it to the email. Screen shots of the problem are also very helpful.

Pacific Timesheet understands that time sheet software is mission critical for many organizations. We offer extended support contracts to guarantee you have minimal down time in the event of any problem. For more information contact sales:

Email	sales@pacifictimesheet.com
Phone	866-289-5719

TROUBLESHOOTING

TROUBLESHOOT: AFTER I INSTALL PACIFIC TIMESHEET I GET A “PAGE CANNOT BE DISPLAYED” ERROR WHEN TRYING TO LOAD THE LOGIN PAGE.

- 1.** Make sure the Pacific Timesheet service is running. On Windows you can open the Services control panel (Start menu > Control Panel > Administrative Tools > Services) and see if the Pacific Timesheet service is running.
- 2.** Make sure you are using the correct host name or IP address, and port number when loading the login page.
- 3.** You may need to disable anti-virus software and rerun the setup program. For instance, McAfee and Sophos are extremely aggressive in the scanning of Java class files (it often identifies them as containing viruses) and subsequently wrongly quarantines or block many of these files.
- 4.** Do not install onto a mapped drive. Mapped drives are part of a user's profile and they are not available to software running as a service, such as Pacific Timesheet.
- 5.** Check for a more detailed error message in the Pacific Timesheet log files. The log files are located in the <pacific-timesheet-install-directory>/tomcat/logs directory. In particular, look in the localhost log files.