

WEBSTER

Easy Data Centralization with Webster



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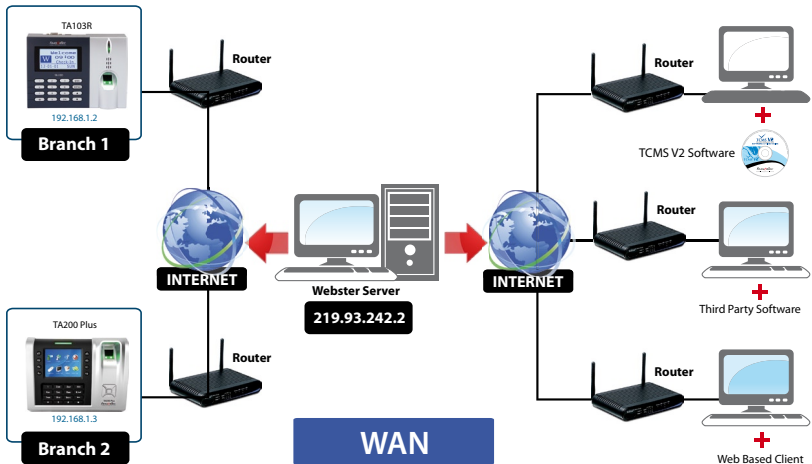
1 • Introducing Webster

Webster – An Introduction

FingerTec Webster is a web platform that facilitates all FingerTec terminals to be integrated with a web application. It is built on the latest Microsoft Technology, Visual Studio .NET 2010 with the .NET Framework 4.0 as the system architecture, and runs on Microsoft Internet Information Services (IIS), supports MySQL database, and centralizes data from all FingerTec terminals through web to server in a real-time manner.

To use Webster, you will need to perform the installation at a server with a static IP address (Webster IP) to work as a host for FingerTec terminals to connect to. With Webster, FingerTec terminals can be installed at any location and still be able to connect to Webster as long as the terminals are connected to the server via LAN or WAN.

Once the Webster IP is inserted in the terminals, the Webster User Interface would show the terminal status as Online. The terminals will start to send data (e.g. User data, enrollment, transaction records, etc.) in real-time back to Webster through an active connection. In the event of a connection failure, the terminals will store the data into a buffer memory and resume sending the data once the connection is established again, hence avoiding any loss of data and records. Take a look at the diagram below for a better illustration:



Webster consolidates the data from FingerTec terminals into the MySQL database of the same server. MySQL is one of the most popular, reliable and fast open source database that facilitates software integration and data extraction. Software specialists will be able to integrate the raw data into their existing software or system, thus producing a complete and automated time attendance processing and third party software integration. To sum it up, Webster is a web based intermediate that links up FingerTec terminals, the MySQL database and a 3rd party software into a total web-based solution which allows access to users at any-time and any location via an Internet browser.

To highlight the differences between the conventional connection method and the Webster connection method, refer to the table below.

CONVENTIONAL CONNECTION	WEBSTER CONNECTION
<ul style="list-style-type: none"> • Data is stored in each individual FingerTec terminal. • Data will need to be downloaded into the TCMS V2. • Data is downloaded into a single TCMS V2 software making it difficult to enable data sharing between applications. • An installation of the TCMSv2 or BioBridge is a must to control and manage the terminals. • For multiple-site installation, configuration on the router / port forwarding needs to be done at each router on each site. 	<ul style="list-style-type: none"> • Data will be centralized and stored in the Webster server. • Data is uploaded to the Webster server in a real-time manner. • TCMSv2 along with any third party software will be able to login to Webster to download data for processing. • Once Webster is installed on the server, all terminal management will be web-based. There'll be no need for additional installations on the client PC. • After the installation of Webster, simply configure the terminals at multiple-sites to connect to the Webster server.

Webster provides a User Interface for system administrators to browse the attendance records stored in the MySQL database. This will be raw data downloaded from the terminals, which show the user ID, date, and time of verification. The system integrator and software developers can fully utilize the records from the MySQL database, to process time attendance analysis and payroll calculations accordingly.

Webster also provides a simple User Interface for system administrators to transfer user data among FingerTec terminals. Users will not need to re-enroll at new terminals should they relocate to a new workstation / office. This is useful for companies with multiple branches and outlets where employees relocations are common and often occur.

Note

Webster is not a complete time attendance solution. It is only an intermediate to facilitate FingerTec terminals into a web-based management, and consolidate data into a centralized database. It does not provide any attendance analysis, but only raw data viewing line by line. It does not provide attendance reports, because it is not integrated with any calculation logic. It cannot change any access control

settings in FingerTec terminals, such as time zones, door lock settings etc. For more optimized and advanced time attendance and access control configuration, FingerTec recommends that you use the complimentary bundled software, TCMS V2 or the web-based attendance solution, TimeTec.

2 • Installing & Configuring Webster

Installing the System

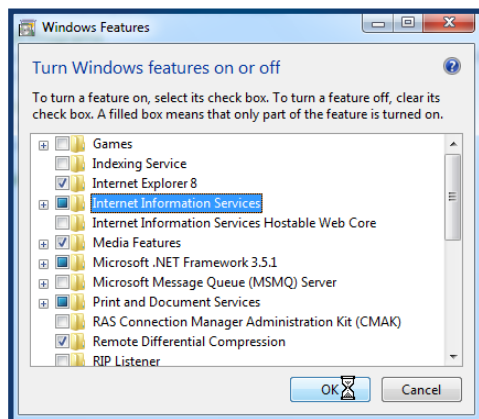
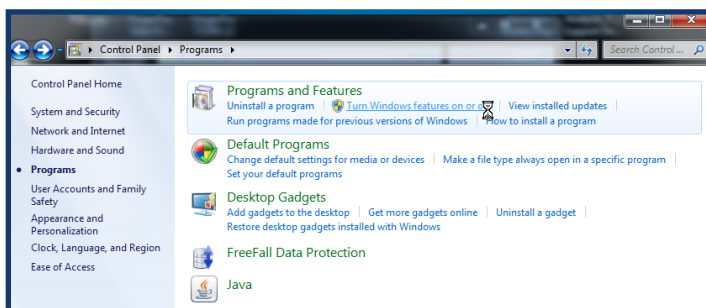
For Webster to function properly, these components need to be installed first:

- Internet Information Services
- Microsoft .Net Framework 4.0
- MySQL server
- MySQL Connector ODBC 3.51
- FingerTec Webster

Make sure the server has been installed with the above components before attempting to install Webster. The install shield will run a test to check that the components have been installed before proceeding with the installation.

INSTALLING THE INTERNET INFORMATION SERVICE (IIS)

The IIS comes with the Windows Operating System and should be installed by the administrator. To install it, follow the steps below.



Go to **Control Panel > Program & Features > Turn Windows feature on or off** > Check **Internet Information Service** checkbox to install IIS > Follow the on-screen instructions to finish the installation of IIS.

INSTALLING MICROSOFT .NET FRAMEWORK 4.0

Download the installation file at <http://www.microsoft.com/download/en/details.aspx?id=17851> > Run the installation file and follow the instructions to start to install Microsoft .Net Framework 4.0

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Download Center

Windows Office Product downloads Download categories Security Resources

Microsoft .NET Framework 4 (Web Installer)

Subscribe

Quick links

- Overview
- System requirements
- Instructions
- Additional information

The Microsoft .NET Framework 4 web installer package downloads and installs the .NET Framework components required to run on the target machine architecture and OS. An Internet connection is required during the installation. .NET Framework 4 is required to run and develop applications to target the .NET Framework 4.

Quick details

Version: 4 Date Published: 2/21/2011
Change Language: English

File Name	Size	
dotNetFx40_Full_setup.exe	869 KB	DOWNLOAD

Read and accept the license agreement > The installation requires an Internet connection to download and install the component into the server. Make sure an Internet connection is available. > Follow the on-screen instructions to complete the installation.

Microsoft .NET Framework 4 Setup

.NET Framework 4 Setup
Please accept the license terms to continue.

MICROSOFT SOFTWARE

I have read and accept the license terms.

Download size estimate: 11 MB
Download time estimates: Dial-Up: 27 minutes
Broadband: 2 minutes

Install

Microsoft .NET Framework 4 Setup

Installation Progress
Please wait while the .NET Framework is being installed.

Download progress: [Progress bar]

Downloading Windows6.1-KB958488-x6001-x86.msu

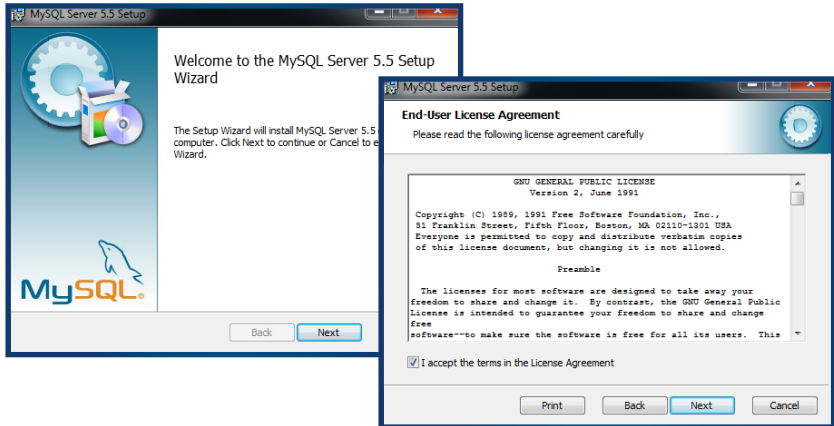
Installation progress: [Progress bar]

Installing necessary components for .NET Framework

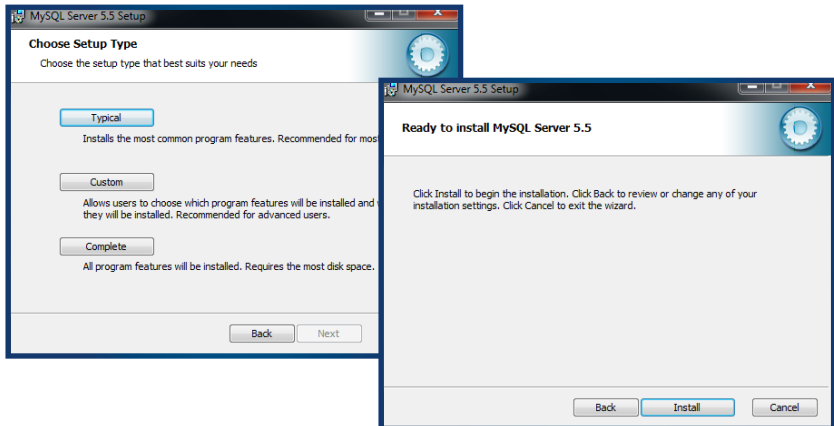
Cancel

INSTALLING THE MYSQL SERVER V5.5

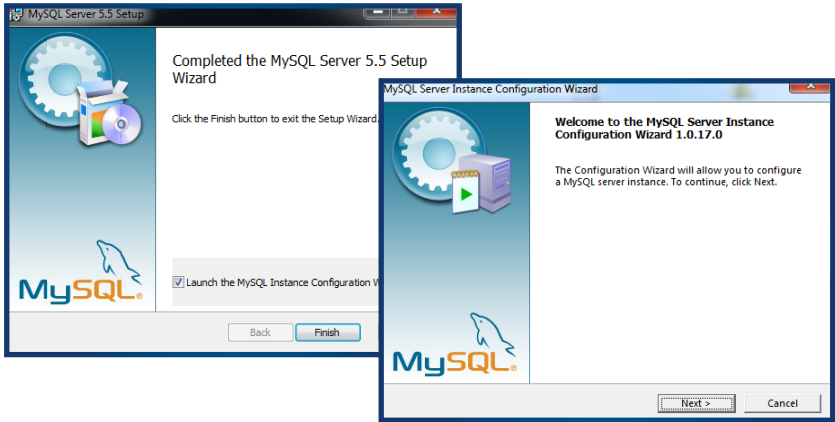
Webster requires the MySQL server version 5.5 to run smoothly. Download the installation file at <http://www.mysql.com/downloads> > Run the installation file to begin installation.



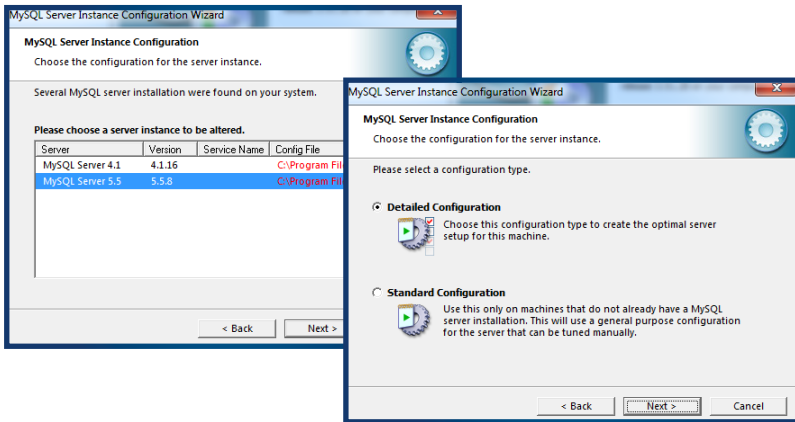
Click **Next** > Read and accept the License Agreement > Click **Next** to proceed.



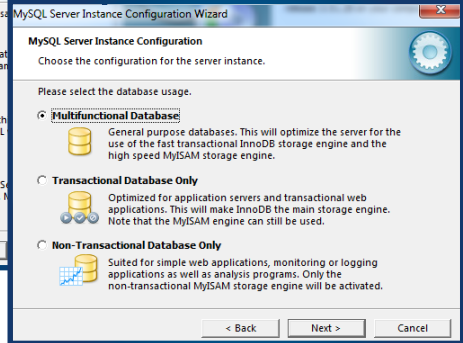
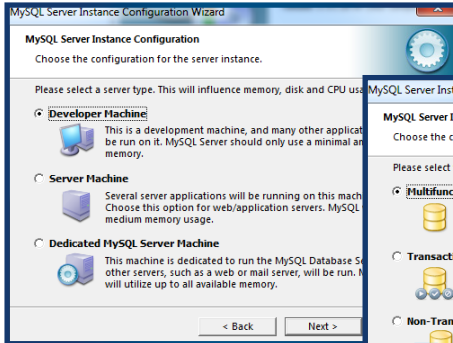
Select **Typical** > Click **Install** to begin the installation process.



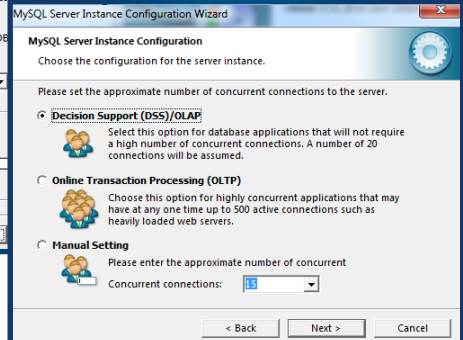
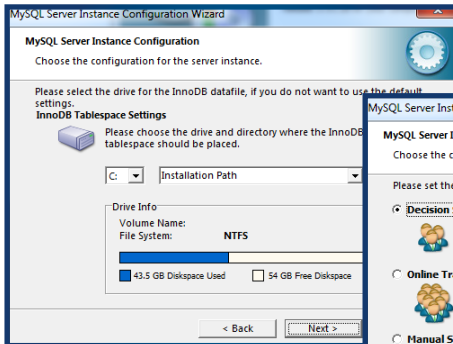
Wait for the installation of the MySQL to be complete > Check the checkbox to Launch the MySQL Instance Configuration Wizard > **Finish** > Start to configure the MySQL server.



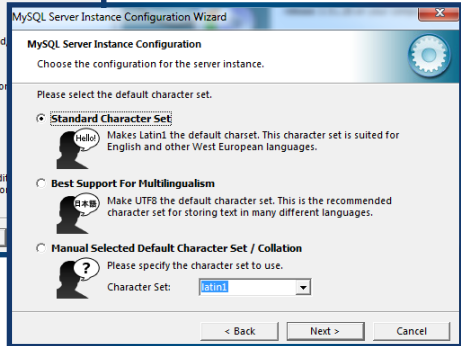
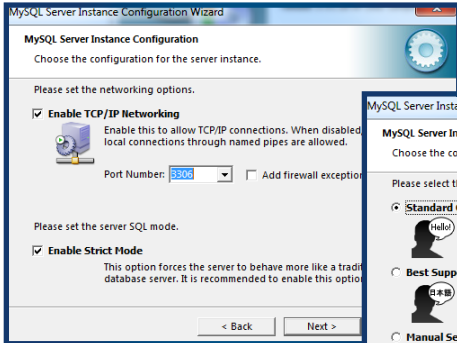
If the server is installed with an older version of MySQL server, the system will advise the administrator > Select to use the latest version, v5.5.8 > **Next** > Select **Detailed Configuration** and Click **Next**



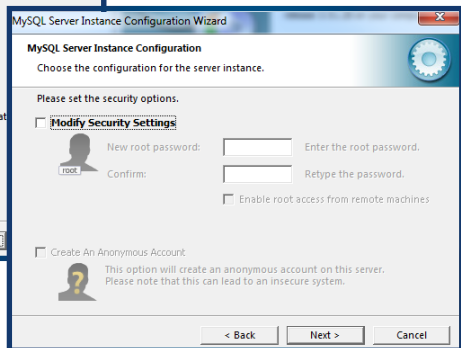
Select **Developer Machine** > Click **Next** > Select **Multifunctional Database** > Click **Next**



Select **Database Support (DSS)/OLAP** > Click **Next**

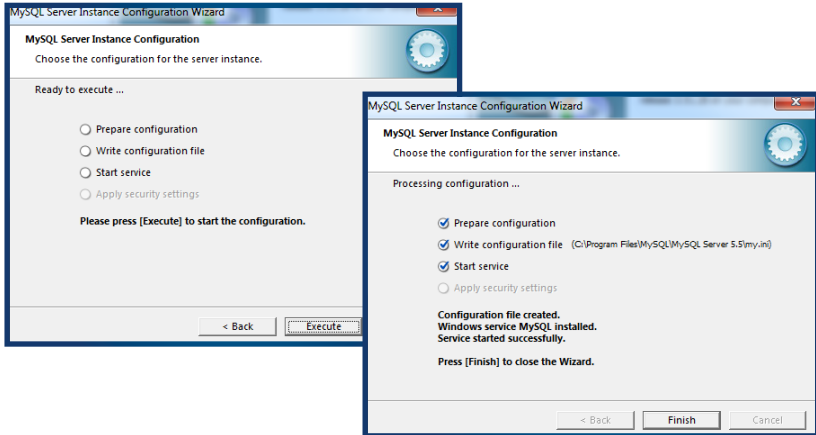


Select **Standard Character Set** > Click **Next**



Uncheck **Modify Security Settings** if the administrator does not want to change the default login name and password of the MySQL server (default login name = root, password = <blank>) > Click **Next**

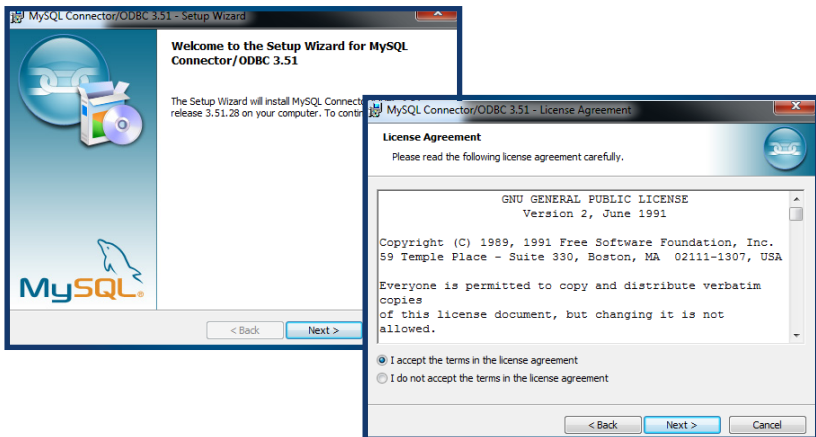
If the Administrator would like to change the login name and password, check **Modify Security Settings** and insert login password to proceed.



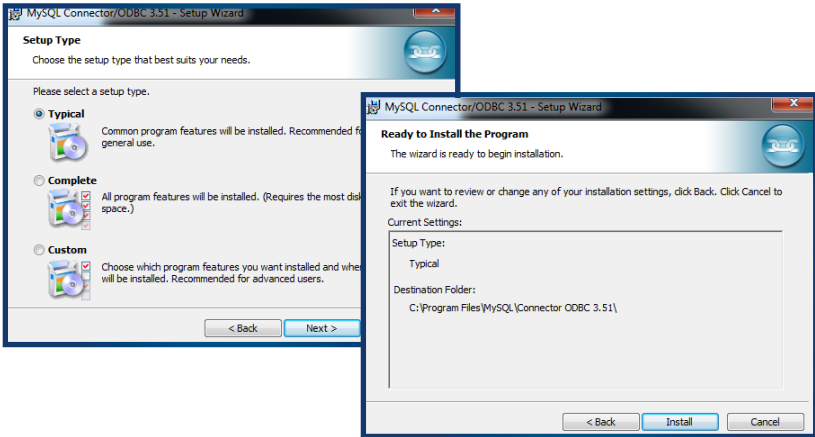
Click **Execute** > Wait for the system to complete the configuration > Click **Finish** to end the process.

INSTALLING THE MYSQL CONNECTOR ODBC 3.5.1

Webster requires the MySQL Connector ODBC 3.51 to work with the MySQL database. Download the installation file at <http://www.mysql.com/downloads/connector/odbc/3.51.html>



Run the installation file > Click **Next** > Read and accept the License Agreement > Click **Next**

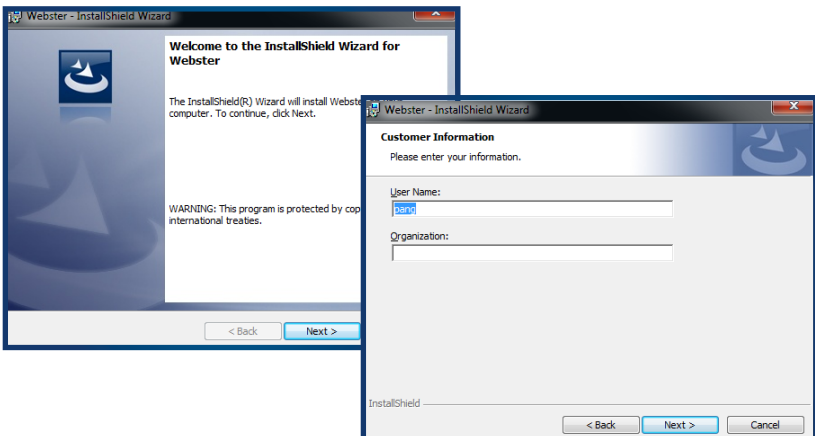


Select **Typical** > Click **Next** > Click **Install** > Click **Finish**

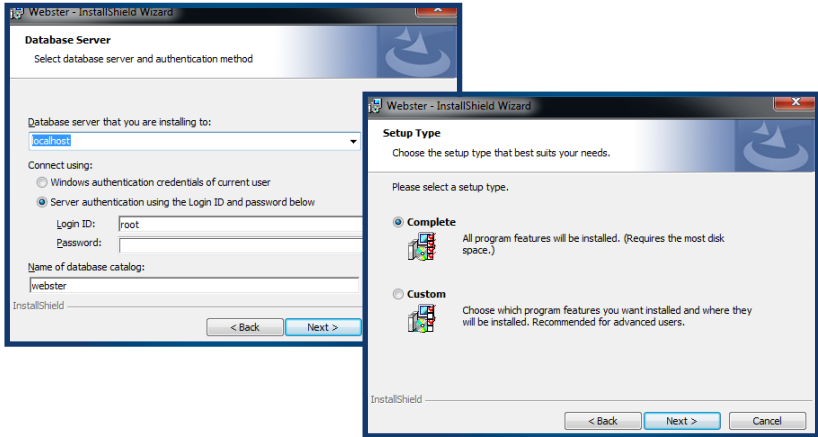
INSTALLING WEBSTER

After successfully installing the previous components, you may proceed to install FingerTec Webster.

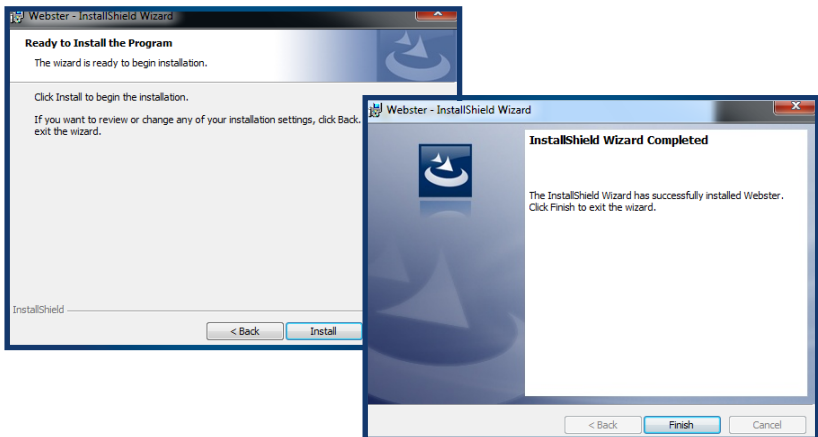
Run the Setup.exe file to begin installation. For Windows Vista, Windows 7 and Windows 8 users, right click and select **Run As Administrator** to run the Setup.exe.



Click **Next** and insert the relevant information. Click **Next** to continue.



Insert the IP address of the MySQL server. Insert “localhost” if the MySQL server has been installed in the same server. Insert the Login ID and Password to connect to the MySQL server and click **Next**. Select **Complete** and click **Next** to continue.



Click Install to begin the installation. Once the process is complete, click Finish to continue.

Now, Webster and its components are successfully installed into the server.

To run Webster: Open Internet Browser > Insert the IP address of the Webster server in the address bar (e.g. 192.168.1.201/Webster) > Fill in default login username and password (default login username: *admin*; password: *admin*) > Click **Login**.

Configuring Webster

The screenshot shows the Webster web interface. At the top left is the Webster logo with the tagline "Bridging FingerTec to the web applications". Below the logo is a navigation menu with categories: Data Management, System Configuration, and Monitoring. The "System Configuration" category is selected, and its sub-items are: Terminal List, Transaction, User, Webster Command, Terminal System Log, User Management, Database Management, and System Configuration. The "System Configuration" sub-item is active, showing a form with the following fields: Date Format (dropdown menu set to YYYY-MM-DD), Time Format (dropdown menu set to 2400), Auto Refresh Interval(s) (input field set to 5), Number of grid rows per page (input field set to 10), Real Time Monitoring Row (input field set to 100), System Email Settings (SMTPServer, Port, Email, Password, Confirm Password), and a Submit button.

Now that Webster is successfully installed, it is time to set some basic configuration. Click on System Configuration to start configuring the Webster.

Auto refresh interval: Defines how fast Webster re-freshes its database to publish the latest information.

Number of grid rows per page: Justifies how many rows to be displayed on a page.

Real-time monitoring row: Justifies how many rows to be displayed as real-time records on a page.

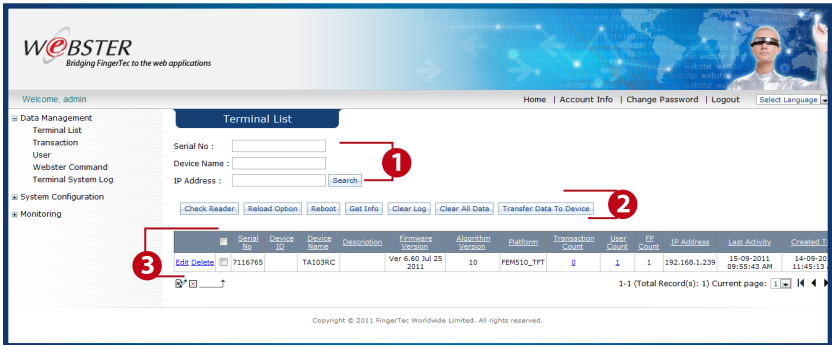
You may configure the System Email Settings if the administrator would like Webster to send an email to the administrator if he/she forgets the login username and password. This function requires an SMTP Server address.

Email: Email address to be used.

Password: Login password of the email address.

3 • Managing FingerTec Terminals in Webster

The Terminal List page displays all the FingerTec terminals that are connected to the Webster server.



- 1 Searching a terminal by serial number, device name or IP address
- 2 Basic command buttons
- 3 Display table of device information.

Adding Terminals into Webster

The administrator does not need to add FingerTec terminals manually into Webster. The terminals connect to Webster automatically by referring to the Webster IP address which has been preset in the terminal settings.

Set **COMM option** in the FingerTec terminal ➡ Insert IP address, Gateway and Subnet mask ➡ Insert Webster IP address (static IP address of the Webster server) ➡ Restart terminal to take effect.

The terminal takes time to connect to the Webserver IP address. Once connected, the administrator will see the basic information of the terminal displayed on the Terminal List as below:

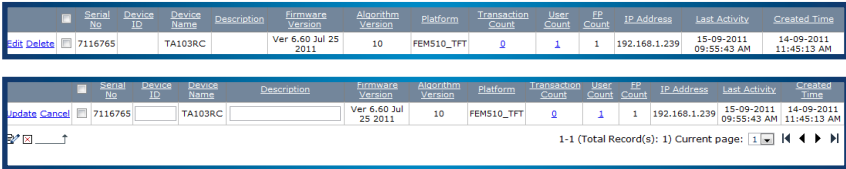
Serial No.	Device ID	Device Name	Description	Firmware Version	Algorithm Version	Platform	Transaction Count	User Count	FP Count	IP Address	Last Activity	Created Time
7116765		TA103RC		Ver 6.60 Jul 25 2011	10	FEMS10_TFT	0	1	1	192.168.1.239	15-09-2011 09:55:43 AM	14-09-2011 11:45:13 AM

Check the following settings if the page does not display any information of the terminals:

- Internet connection – Make sure the Webster server and the terminals are connected to the Internet.
- Firewall and Antivirus settings of the Webster server.
- IP address, Gateway, Subnet mask and Webster IP address set in the terminal.

Editing Terminals in Webster

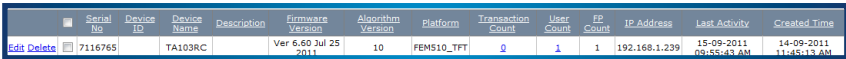
Click the **Edit** button next to the relevant FingerTec terminals to edit the basic information of the terminals.



Now the administrator can insert or change the Device ID of the terminals. It is recommended to name the terminals for easy reference, for example, "Time Clock at HQ". Click **Update** to save changes.

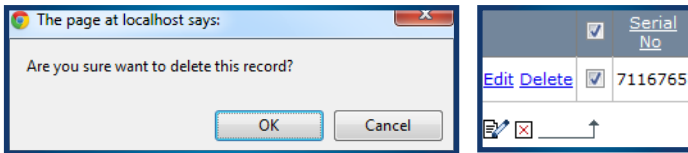
Deleting Terminals in Webster

The administrator can delete any of the terminals via Webster if it is not in use. Click **Delete** and **OK** to confirm and delete the terminal.



BATCH PROCESSING – DELETE OR EDIT

In case the administrator wants to edit or delete multiple terminals, this can be done by batch processing: Select relevant terminals → Select Batch Edit or Batch Delete

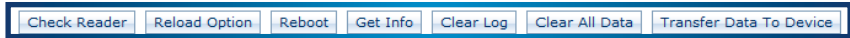


Searching for Terminals

Serial No :	<input type="text"/>
Device Name :	<input type="text"/>
IP Address :	<input type="text"/> Search

An administrator can search for a terminal by its serial number, device number or IP address. Insert either one information into the relevant data field and click **Search** to find the terminal. The results will be displayed at the bottom in a table format (section 3).

Controlling the Terminals



Section 2 lists the basic command buttons that allow you to interact with the FingerTec terminals. The administrator must select the terminals by checking the checkbox next to the serial number of terminal, then select the relevant command.

Check reader: Identifies the connectivity status of the terminal, Online (terminal is connected to Webster) or Offline (terminal is not connected to Webster). It is advisable to check the connectivity status of the terminal before starting an operation.

Reload Option: If an administrator changes any connection settings in the terminals, the administrator must refresh the information in Webster by clicking this button.

Reboot: Restarts the terminal remotely.

Get Info: Downloads basic information from the terminal and displays it in the table, for example, firmware version, algorithm version, total number of users, etc.

Clear log: Deletes all stored transaction logs in the terminal. Once deleted, the transaction logs are unable to be restored or retrieved again. Only perform this operation if the terminal is almost reaching its storage limit. Make sure that you have already retrieved and stored all the transaction logs into the Webster server before performing this step.

Clear All Data: Deletes all user information and transaction logs stored in the terminal. This is to initialize the terminal by emptying its buffer memory.

Transfer Data To Device: to copy all user information from 1 terminal and transfer them to another terminal.

Webster needs a LAN/WAN connection to send commands to the terminals. If the connection is disrupted or the terminal is shut down, Webster will not be able to send commands to it. In this situation, Webster will then keep and queue the commands and execute them? when the connection or terminal resumes operation. It is recommended to check the Real Time Webster Command page (Chapter 7 Monitoring) to check the status of the commands.

In the example below, an administrator is trying to copy user information from Terminal ID 1 to transfer them to Terminal ID 2. The steps are shown below:

1. Select the terminal to copy data → Click Transfer Data To Device

Serial No :

Device Name :

IP Address :

	Serial No	Device ID	Device Name	Description	Firmware Version	Algorithm Version	Platform	Transaction Count	User Count	FP Count	IP Address	Last Activity	Created Time
Edit Delete	8204092	2	R2	Indonesia Branch	Ver 6.20 Jul 18 2011	9	FEM500	0	3	3	192.168.1.238	2011-09-26 14:41:31	2011-09-26 14:25:38
Edit Delete	7116765	1	TA103RC	Malaysia HQ	Ver 6.60 Jul 25 2011	9	FEM510_TFT	0	0	0	192.168.1.239	2011-09-26 14:42:14	2011-09-26 14:25:39

1-2 (Total Record(s): 2) Current page: 1 | < > << >>

2. Webster will alert you to define the destination of terminal to transfer the data to. Select the terminal and click OK. The screen will display a Success message. However, the operation might be pending due to an unavailable connection. To double check the status, go to **Real Time Webster Command**.

ase select device:

- 16765 (Malaysia HQ) - Online
- 34092 (Indonesia Branch) - Online

3. Go to **Monitoring** → **Real Time Webster Command**. In this window, Webster lists all the commands that are queued or completed.

Real Time Webster Command								
Serial No: <input type="text" value="All"/>								
No.	Serial No	Command	User ID	Status	Return Code	Request Time	Response Time	Complete Time
1	7116765	Upload Fingerprint	1	Pending		2011-09-26 14:43:43		
2	7116765	Upload User	1	Pending		2011-09-26 14:43:43		
3	7116765	Upload Fingerprint	2	Pending		2011-09-26 14:43:43		
4	7116765	Upload User	2	Pending		2011-09-26 14:43:43		
5	7116765	Upload Fingerprint	3	Pending		2011-09-26 14:43:43		
6	7116765	Upload User	3	Pending		2011-09-26 14:43:43		
7	7116765	Download User/Data		Completed	0	2011-09-26 14:41:42	2011-09-26 14:41:57	2011-09-26 14:41:57

4. When Webster completes the data transfer or any other command, the status will change to "Completed".

Real Time Webster Command								
Serial No: <input type="text" value="All"/>								
No.	Serial No	Command	User ID	Status	Return Code	Request Time	Response Time	Complete Time
1	7116765	Upload Fingerprint	1	Completed	0	2011-09-26 14:43:43	2011-09-26 14:44:05	2011-09-26 14:44:06
2	7116765	Upload User	1	Completed	0	2011-09-26 14:43:43	2011-09-26 14:44:05	2011-09-26 14:44:06
3	7116765	Upload Fingerprint	2	Completed	0	2011-09-26 14:43:43	2011-09-26 14:44:05	2011-09-26 14:44:06
4	7116765	Upload User	2	Completed	0	2011-09-26 14:43:43	2011-09-26 14:44:05	2011-09-26 14:44:06
5	7116765	Upload Fingerprint	3	Completed	0	2011-09-26 14:43:43	2011-09-26 14:44:05	2011-09-26 14:44:06

Always check the Real Time Webster Command to confirm the command is completed. For more explanation, view Chapter 6.

Understanding the Basic Information of Terminals

	Serial No	Device ID	Device Name	Description	Firmware Version	Algorithm Version	Platform	Transaction Count	User Count	FP Count	IP Address	Last Activity	Created Time
Edit Delete	7116765	TA103RC			Ver 6.60 Jul 25 2011	10	FEM510_TFT	0	1	1	192.168.1.239	15-09-2011 09:55:43 AM	14-09-2011 11:45:13 AM

Section 3 is the check list of FingerTec terminals. The administrator can view the details of the FingerTec terminals as it appears in the table.

Serial no: 7-digit serial number of the connected terminals.

Device ID: The Device number set in FingerTec terminals, varying from 1 to 999. No duplication of number is allowed. The administrator can set the Dev ID and update the changes to terminals.

Device Model: The specific model of the FingerTec terminal.

Description: The assigned name of the terminal for a more accurate reference, for example: Time Clock at HQ. The administrator can set the name of each terminal by editing the terminal information.

Firmware version: The firmware version of the terminal. This is an important reference to a FingerTec technical person to troubleshoot the terminal during a system failure. The administrator does not have any authorization to edit this.

Algorithm Version: The algorithm version supported by

the FingerTec terminal.

Platform: The version of core board of FingerTec terminals. This is an important reference to a FingerTec technical person to troubleshoot the terminal during a system failure. The administrator does not have any authorization to edit this.

Transaction count: Total transaction logs (attendance records) saved in the terminal. All of these logs have already been uploaded to the Webster database. The count is as an alert to the administrator about storage limit of the terminal.

User count: Total users stored in the terminal.

FP Count: Total fingerprints stored in the terminal.

IP Address: The unique IP address of the terminal.

Last Activity: The most recent upload time of terminal data (users or transaction logs) to Webster.

Created time: The date and time that the terminal first connected to Webster.

4 • Managing Users in Terminals & Webster

FingerTec terminals always uploads user information (user ID, privileges, fingerprints, passwords, and cards) to Webster after enrollment, and publishes it onto the User page. The process is fully automatic and does not require the administrator to regularly download the information from terminals. The User page is divided into 3 sections.

Webster
Enabling FingerTec to the web applications

Welcome, admin Home | Account info | Change Password | Logout | Select Language

Data Management
Terminal List
Transaction
User
Webster Command
Terminal System Log

System Configuration
User Management
Database Management
System Configuration

Monitoring
Real Time Transaction
Real Time User
Real Time Webster Command
Real Time Terminal System Log

User

User ID :

Name :

Serial No : Search

Export Upload User Upload Template Transfer Data To Device

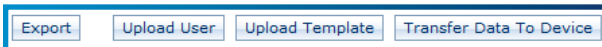
Serial No	User ID	Name	Card Number	Privilege	User Group	Template Count	Created Time
Full Delete <input type="checkbox"/>	8204092	2	0	User	3	1	26-09-2011 11:45:13 AM
Full Delete <input type="checkbox"/>	8204092	1	0	User	1	2	26-09-2011 11:48:01 AM

1-2 (Total Record(s): 2) Current page: 1 2 3 4 5 6 7 8 9 10

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- 1 Searching users by user ID, name or serial number of terminal.
- 2 Basic command button.
- 3 Table to display user data.

Uploading, Transferring, and Exporting User Data



Although user information is automatically updated from the terminals to Webster, the administrator can also add user information to the terminals via Webster by uploading and transferring data.

UPLOADING USERS

This process creates new users in the terminal without the user actually enrolling at the terminal. The administrator can upload user ID, password and Card ID to the terminal.

To create and upload new users: Select terminal by serial number ➔ Create new user ID (does not exist in the terminal) ➔ Name the User ➔ Insert Card ID (optional) ➔ Define privilege ➔ Insert password (optional) ➔ Click **Upload User**.

Serial No :

User ID : *

Name :

Card Number :

Privilege :

Password :

* Required Field

Add New

UPLOADING TEMPLATES

This process uploads fingerprint templates of users into the terminals. The administrator can copy and paste the fingerprint templates between terminals.

To copy users' fingerprint: Select terminal by serial number ➡ Select a user ID ➡ Select Fingerprint ID (number of fingerprint enrolled, start from 0 to 9) ➡ Copy content in the **Template** column

To paste users' fingerprint: Select terminal by serial number ➡ Select a user ID ➡ Select Fingerprint ID ➡ Select Valid ➡ Paste the copied template into the **Template** column ➡ Click **Upload Template**

The fingerprint template is now uploaded into the terminal as the user's fingerprint.

Serial No : 8204092
 User ID : 2
 Finger ID : 0
 Valid : Valid
 Template : oco1gZgqUgFoSapPQU5OuW3BDE
 W9cUJENQMNSQRRhx09BFmJVYEEEL
 3FhawQ7tkhBNLy3RQEmrK00gQID
 RCqBF8OmYoEPMc9bQQ5CPIRBC1
 ROYQEL0j1OARmtjeBDD1FcgEVR8
 kqwRfmuS+BC0asU8EesSIZwR40

Upload Template Add New

Serial No : 8204092
 User ID : 3
 Finger ID : 1
 Valid : Valid
 Template : BT6GFVGtuYFOhRI4wMJST09ZdHB
 mWFFORz44wMYWV9vdHBoXFVTS
 0A4wMJgZGpym5oXllyVUJawmOk
 7cdBFJtdwMjppN2MieaMDDdKPzI
 EOZacDGb6FVSmfgAAAAAAAAAAAA
 AAAAAAAAAAAAAAAAAAAAAA

Upload Template Add New

TRANSFERRING USER DATA

This process allows the administrator to transfer user data (user ID, fingerprints, cards, password, etc) among FingerTec terminals. This is to ease the process of enrollment so that the user does not have to repeatedly enroll at all the FingerTec terminals.

Note
Transferring user data does not delete the user data from any terminals.

To transfer users: Select users from the table ➡ Click **Transfer Data To Device** ➡ Select terminal to transfer the users to ➡ Click **OK** to proceed

Export Upload User Upload Template Transfer Data To Device

	Serial No	User ID	Name	Card Number	Privilege	User group	Template Count	Created Time
Edit Delete	8204092	3		0	User	1	1	2011-09-26 14:42:31
Edit Delete	8204092	2		0	User	1	1	2011-09-26 14:42:31
Edit Delete	8204092	1		0	User	1	1	2011-09-26 14:42:31

1-3 (Total Record(s): 3)

Please select device:

- 7116765 (Malaysia HQ) - Online
- 8204092 (Indonesia Branch) - Online

OK Cancel

EXPORTING USERS

The administrator may export user information into a check list format for reference and record purposes. There are three formats that the data can be exported into which are csv, txt or xls format.

File: csv

Export Cancel

- csv
- txt
- xls

Searching for Users

User ID :

Name :

Serial No :

The administrator is able to search for user information on the Webster database. The users can be searched either by the User ID, Name or Serial Number of terminals that the user is enrolled into. Just insert either information into the data fields and the results will be displayed in a table at the bottom of the page.

Editing and Deleting Users

The administrator has the authorization to edit and delete users in the Webster server and FingerTec terminals. Any editing or deleting operation takes immediate effect in the terminals. You may choose to edit or delete a single user, or multiple users at a time.

To edit a single user: Click **Edit** next to the user ID column ➡ Insert Name and Card ID (optional) ➡ Select Privilege ➡ Define User Group ➡ Click **Update** to proceed ➡ Webster automatically updates the changes to the terminal.

	Serial No	User ID	Name	Card Number	Privilege	User group	Template Count	Created Time
Update Cancel	8204092	3	<input type="text"/>	0	0 - User	1	1	2011-09-26 14:42:31
Edit Delete	8204092	2	<input type="text"/>	0	User	1	1	2011-09-26 14:42:31
Edit Delete	8204092	1	<input type="text"/>	0	User	1	1	2011-09-26 14:42:31

1-3 (Total Record(s): 3) Current page: 1

To edit multiple users: Select users ➡ Click **Batch Edit** at the bottom ➡ A new window will pop up ➡ Insert name and Card ID (optional) ➡ Select Privilege ➡ Define User Group ➡ Click **Update** to proceed ➡ Webster automatically updates the changes to the terminal.

	Serial No	User ID	Name	Card Number	Privilege	User group	Template Count	Created Time
Edit Delete	8204092	3	John	0	Admin	1	1	2011-09-26 14:42:31
Edit Delete	8204092	2	<input type="text"/>	0	User	1	1	2011-09-26 14:42:31
Edit Delete	8204092	1	<input type="text"/>	0	User	1	1	2011-09-26 14:42:31

1-3 (Total Record(s): 3) Current page: 1

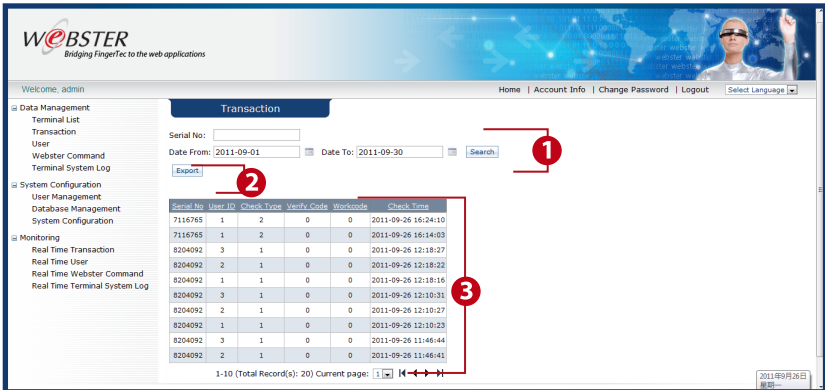
To delete one user: Click **Delete** next to the user ID ➡ Click **OK** to confirm to delete ➡ Webster automatically updates the changes to the terminal to delete the user.

To delete multiple users: Select users ➡ Click **Batch Delete** at the bottom of the page ➡ Click **OK** to confirm to delete ➡ Webster automatically updates the changes to the terminal to delete the users.

Serial No	8204092
User ID	2
Name	Mary
Card Number	0
Privilege	0 - User
User group	1
Created Time	2011-09-26 14:42:31
Serial No	8204092
User ID	1
Name	Terry
Card Number	0
Privilege	0 - User
User group	1
Created Time	2011-09-26 14:42:31

5 • Managing Transactions Logs in Webster

Every time a user verifies to report their attendance at a terminal, the transaction logs (attendance records) get uploaded to Webster immediately. This makes the Webster a real-time attendance recording server. In the event of a connection failure, the terminals then save the transaction logs into its buffer memory, to be uploaded to Webster the moment the connection to Webster resumes.

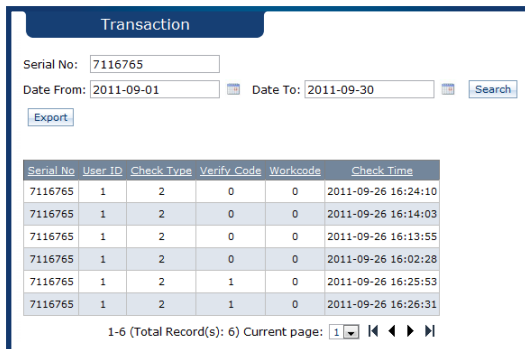


- 1 The sorting data field
- 2 Export button
- 3 The table displaying transaction details

Sorting Transaction Logs

The administrator can choose to view the transaction logs by serial number of the terminals or by date range.

To sort by serial number:
Insert serial number of terminal into the Serial Number column ➡ Click **Search** ➡ Transaction logs will be displayed in a table.



To sort by Date Range: Insert the start and end date
 ➔ Click **Search** ➔ Transaction logs will be displayed in a table.

The screenshot shows a web interface titled "Transaction". It has a search form with fields for "Serial No:", "Date From:" (set to 2011-09-15), and "Date To:" (set to 2011-09-30). There is a "Search" button and an "Export" button. Below the search form is a table with the following data:

Serial No	User ID	Check Type	Verify Code	Workcode	Check Time
7116765	1	2	0	0	2011-09-26 16:24:10
7116765	1	2	0	0	2011-09-26 16:14:03
8204092	3	1	0	0	2011-09-26 12:18:27
8204092	2	1	0	0	2011-09-26 12:18:22
8204092	1	1	0	0	2011-09-26 12:18:16
8204092	3	1	0	0	2011-09-26 12:10:31
8204092	2	1	0	0	2011-09-26 12:10:27
8204092	1	1	0	0	2011-09-26 12:10:23
8204092	3	1	0	0	2011-09-26 11:46:44
8204092	2	1	0	0	2011-09-26 11:46:41

At the bottom of the table, it says "1-10 (Total Record(s): 20) Current page: 1" with navigation arrows.

Exporting Transaction Logs

Transaction logs can be exported into CSV, TXT or XLS formats. The exported file can be used as data to be imported into a 3rd party software for further processing.

To export transaction: Click **Export** ➔ Define serial number of the terminal ➔ Define start and end date ➔ Select format of export file ➔ Click **Export** to proceed.

This screenshot is similar to the previous one, but the "Export" button has been clicked, opening a dropdown menu. The menu options are: "csv" (selected), "txt", and "xls". There is also an "Export" button and an "Cancel" button next to the menu.

Reading the Transaction Logs

Transaction logs in Webster can be retrieved and viewed by the administrator anytime. Each code/number represents an important piece of data:

Serial No	User ID	Check Type	Verify Code	Workcode	Check Time
7116765	1	2	0	0	2011-09-26 16:24:10
7116765	1	2	0	0	2011-09-26 16:14:03
8204092	3	1	0	0	2011-09-26 12:18:27
8204092	2	1	0	0	2011-09-26 12:18:22
8204092	1	1	0	0	2011-09-26 12:18:16
8204092	3	1	0	0	2011-09-26 12:10:31
8204092	2	1	0	0	2011-09-26 12:10:27
8204092	1	1	0	0	2011-09-26 12:10:23
8204092	3	1	0	0	2011-09-26 11:46:44
8204092	2	1	0	0	2011-09-26 11:46:41

1-10 (Total Record(s): 20) Current page: 1

Serial no: The serial number of the terminal, which uploaded the transaction log

User ID: User ID of the verified user

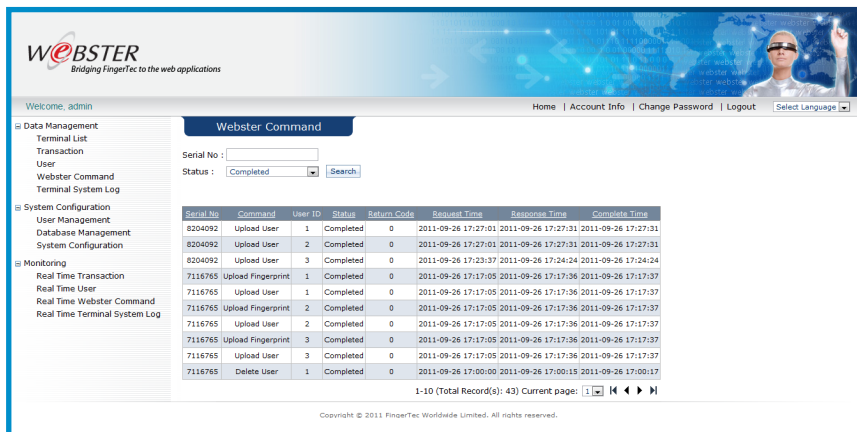
Verify Code: The type of verification used (0 – card/password, 1 – fingerprint)

Check Type: Status defined at the time of verification (indicated by the user during verification, 0 – Check In, 1 – Check Out, 2 – Break, 3 – Resume, 4 – OT in and 5 – OT Out)

Work Code: The number inserted by users during verification to indicate the reason of attendance reporting. For more details see the explanation in the Hardware user manual for FingerTec models

Check Time: Date and time of verification

6 • Checking the Webster Command and System Log



The connection between Webster and the terminals can be affected by many factors, such as a congested or slow network, the shutting down of terminals, etc. These reasons cause the data transfer between Webster and the terminals to be delayed. As discussed earlier, in such situations, the terminals will save the data and transaction logs into the buffer memory and resumes the upload when a connection is established again. The same process is done by Webster.

When the administrator is trying to send a command to the terminals when the connection is down, Webster will store the command into its own buffer memory and will resend the data when the connection resumes. It is advisable to check the page Webster Command to see the status of command, which will be one of the following:

Completed: Webster has completed the data upload or commands to the terminals.

Pending: Webster is waiting to upload data or send commands to the terminals.

The Webster Command page also displays other important information, such as:

Serial no: Showing which terminal Webster will be connecting to

Command: Displays the name of the command or data transfer between Webster and the terminals

Status: Shows the status of the commands: Completed or Pending

Request time: The date and time that Webster started to send the data or command

Response time: The date and time that the terminal responded to Webster

Complete time: The date and time that the data transfer or command is completed (only appears if Status = Completed)

These logs are important for the administrator to be informed of the communication status between Webster and the FingerTec terminals. The administrator can filter the logs according to the serial number of terminals, or types of status.

Webster Command

The records in Webster Command are all historical records and not real-time logs. It is recommended that the administrator view the Real Time Webster Command page (under Monitoring) to view all real-time commands/data transfer between the terminals and Webster.

Real Time Webster Command									
Serial No: <input type="text" value="All"/>									
No.	Serial No	Command	User ID	Status	Return Code	Request Time	Response Time	Complete Time	
1	8204092	Upload User	1	Completed	0	2011-09-26 17:27:01	2011-09-26 17:27:31	2011-09-26 17:27:31	
2	8204092	Upload User	2	Completed	0	2011-09-26 17:27:01	2011-09-26 17:27:31	2011-09-26 17:27:31	
3	8204092	Upload User	3	Completed	0	2011-09-26 17:23:37	2011-09-26 17:24:24	2011-09-26 17:24:24	
4	7116765	Upload Fingerprint	1	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
5	7116765	Upload User	1	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
6	7116765	Upload Fingerprint	2	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
7	7116765	Upload User	2	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
8	7116765	Upload Fingerprint	3	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
9	7116765	Upload User	3	Completed	0	2011-09-26 17:17:05	2011-09-26 17:17:36	2011-09-26 17:17:37	
10	7116765	Delete User	1	Completed	0	2011-09-26 17:00:00	2011-09-26 17:00:15	2011-09-26 17:00:17	
11	8204092	Upload Fingerprint	3	Completed	0	2011-09-26 16:27:32	2011-09-26 16:27:34	2011-09-26 16:27:34	
12	7116765	Upload Fingerprint	1	Completed	0	2011-09-26 16:26:22	2011-09-26 16:26:22	2011-09-26 16:26:23	
13	7116765	Upload Fingerprint	1	Completed	0	2011-09-26 16:24:56	2011-09-26 16:25:08	2011-09-26 16:25:09	
14	7116765	Download User/Data		Completed	0	2011-09-26 16:24:18	2011-09-26 16:24:25	2011-09-26 16:24:25	
15	7116765	Download User/Data		Completed	0	2011-09-26 16:15:10	2011-09-26 16:16:59	2011-09-26 16:17:00	
16	7116765	Download User/Data		Completed	0	2011-09-26 16:08:17	2011-09-26 16:08:26	2011-09-26 16:08:27	
17	7116765	Upload User	1	Completed	0	2011-09-26 16:08:04	2011-09-26 16:08:26	2011-09-26 16:08:27	
18	7116765	Upload User	1	Completed	0	2011-09-26 16:02:02	2011-09-26 16:02:12	2011-09-26 16:02:13	
19	7116765	Download User/Data		Completed	0	2011-09-26 16:01:22	2011-09-26 16:01:30	2011-09-26 16:01:30	
20	7116765	Erase All User Info		Completed	0	2011-09-26 16:00:42	2011-09-26 16:00:51	2011-09-26 16:00:51	

System Log

System log refers to administrative records stored in each terminal. It records any operation done by the administrator, for example, registration of a new user by fingerprint. The administrator will not be able to see these records at the terminal itself. However the terminal saves these records into its buffer memory, and uploads them to Webster when a connection is established.

These records can be viewed and read by clicking on Terminal System Log.

The screenshot shows the Webster Terminal System Log interface. At the top, there is a header with the Webster logo and the tagline "Bridging FingerTec to the web applications". Below the header, there is a navigation menu on the left with options like "Data Management", "System Configuration", and "Monitoring". The main content area displays the "Terminal System Log" page. It includes a search bar with "Serial No:" and a "Log Date From:" field set to "2011-09-01". Below the search bar is a table with the following columns: Serial No, Description, Admin, Param_1, Param_2, Param_3, Param_4, Log Time, and Created Time. The table contains two entries:

Serial No	Description	Admin	Param_1	Param_2	Param_3	Param_4	Log Time	Created Time
7116765	Fingerprint Registration	0	5	0	0	333	2011-09-27 11:50:01	2011-09-27 11:51:07
7116765	Register User	0	5	0	0	0	2011-09-27 11:50:00	2011-09-27 11:51:07

At the bottom of the table, there is a summary: "1-2 (Total Record(s)): 2". There are also navigation buttons for "Previous", "Next", and "Refresh".

The Terminal System Log page is displayed in a table format. Each column displays the following:

Serial number: The serial number of the terminal that sent the system log to Webster

Description: The operation done at the terminal

Log time: The date and time that the operation occurred

Created time: The date and time that the record was uploaded to Webster

If the administrator would like to monitor the real-time operations occurring at the terminal, go to the Real Time Terminal System Log page under Monitoring for details. Whenever an operation occurs at the terminal, the administrator will be informed immediately.

Real Time Terminal System Log									
Serial No: <input type="text" value="All"/>									
No.	Serial No	Description	Admin	Param 1	Param 2	Param 3	Param 4	Log Time	Created Time
1	7116765	Fingerprint Registration	0	5	0	0	333	2011-09-27 11:50:01	2011-09-27 11:51:07
2	7116765	Register User	0	5	0	0	0	2011-09-27 11:50:00	2011-09-27 11:51:07

7 • Monitoring Real-Time Transactions & Users

Monitoring Real-Time Transactions

Real Time Transaction							
Serial No: <input type="text" value="All"/>							
No.	Serial No	User ID	Check Type	Verify Code	Workcode	Check Time	
1	8204092	3	1	0	0	2011-09-26 16:28:12	
2	8204092	2	1	0	0	2011-09-26 16:28:06	
3	8204092	3	1	0	0	2011-09-26 16:28:01	
4	8204092	3	1	0	0	2011-09-26 16:27:41	
5	8204092	2	1	0	0	2011-09-26 16:26:36	
6	7116765	1	2	1	0	2011-09-26 16:26:31	
7	7116765	1	2	1	0	2011-09-26 16:25:53	
8	7116765	1	2	0	0	2011-09-26 16:24:10	
9	7116765	1	2	0	0	2011-09-26 16:14:03	
10	7116765	1	2	0	0	2011-09-26 16:13:55	
11	7116765	1	2	0	0	2011-09-26 16:02:28	
12	8204092	3	1	0	0	2011-09-26 12:18:27	
13	8204092	2	1	0	0	2011-09-26 12:18:22	
14	8204092	1	1	0	0	2011-09-26 12:18:16	
15	8204092	3	1	0	0	2011-09-26 12:10:31	
16	8204092	2	1	0	0	2011-09-26 12:10:27	
17	8204092	1	1	0	0	2011-09-26 12:10:23	
18	8204092	3	1	0	0	2011-09-26 11:46:44	
19	8204092	2	1	0	0	2011-09-26 11:46:41	
20	8204092	1	1	0	0	2011-09-26 11:46:18	

Real Time Transaction is a page that displays real-time verifications that occur at the terminals. Webster receives and publishes all transactions received from connected terminals to inform the administrator about activity at the terminals.

The transactions are displayed in a table format which contains the following columns:

Serial no: The serial number of the terminal which uploaded the transaction log.

User ID: The user ID of the verified user.

Check Type: Status defined at the time of verification (indicated by the user during verification, 0 – Check In, 1 – Check Out, 2 – Break, 3 – Resume, 4 – OT in and 5 – OT Out)

Verify Code: The type of verification used (0 – card/password, 1 – fingerprint)

WorkCode: The number inserted by users during verification to indicate the reason of attendance reporting. For more details see the explanation in the Hardware user manual for FingerTec models

Check Time: Date and time of verification

Monitoring Real-Time User Enrollment

Real Time User							
Serial No: <input type="text" value="All"/>							
No.	Serial No	User ID	Name	Card Number	Privilege	User group	Created Time
1	8204092	3	John	0	2	1	2011-09-26 14:42:31
2	8204092	2	Mary	0	0	1	2011-09-26 14:42:31
3	8204092	1	Terry	0	0	1	2011-09-26 14:42:31

Besides real-time transactions, Webster also displays real-time user enrollment records from all terminals. The administrator can view and be informed of new users, which terminal he/she is enrolled in, together with the date and time of enrollment.

Serial no: The serial number of the terminal in which the new user has been enrolled in

User ID: The assigned new user ID

Name: The name of the new user

Card Number: The card ID enrolled.

Privilege: The privilege of the user (0 – normal user, 1 – Enroller, 2 – Administrator, 3 – Supervisor)

User Group: TBA

Created time: Date and time of verification

8 • Managing, Administrating, and Maintaining Webster

Managing Administrator

Webster only allows administrators access to manage terminals, users and transactions. Super administrators, on the other hand, are able to set and assign new supervisors, and control the authority level of supervisors. The super administrator is assigned to the first person that logs into Webster. To maintain a level of security with Webster, it is recommended that each administrator and supervisor be assigned with different levels of access which can be controlled and monitored by a username and password.

Click [User Management](#) to view the details of administrators.

Webster
Bridging FingerTec to the web applications

Welcome: admin Home Account Info Change Password Logout Select Language

User Management

User ID :
Name :
Email :
Membership Status : Active [Search]

[Add New User](#) [Update Privilege](#)

	User ID	User Name	Name	Address	Phone No.	Email	Date Added	Date Valid	Membership Status	Remarks	User View/Edit/Delete	Transaction View	Terminal List View/Edit/Delete	Terminal System Log View/Delete
Edit Delete	1	admin	admin	admin		admin@admin.com	2011-09-06 00:41:53	2011-09-27 11:41:05	Active		[1] [1] [1]	[1]	[1] [1] [1]	[1] [1]
Edit Delete	2	user	user	user	user	user@user.com	2011-09-06 00:42:51	2011-09-26 16:28:27	Active		[1] [0] [0]	[1]	[1] [0] [0]	[1] [0]

1-2 (Total Record(s): 2) Current page: 1

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The administrators can be viewed and sorted by User ID, name, and email. The Membership Status displays the status of each individual administrator, whether they are active (access allowed) or inactive (access denied).

The table below displays the levels of authority of all the different administrators. Each function can be allowed or denied to each administrator.

User View Edit Delete	Transaction View	Terminal List View Edit Delete	Terminal System Log View Delete	User Management View Edit Delete
1 1 1	1	1 1 1	1 1	1 1 1
1 0 0	1	1 0 0	1 0	1 0 0
1 0 1	1	1 0 0	1 0	1 0 1

User: Authority to view/edit/delete users in Webster and FingerTec terminals

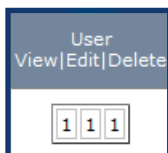
Transaction View: Authority to view transaction logs of the users

Terminal List: Authority to view/edit/delete terminals in Terminal List

Terminal System Log: Authority to view/delete the system logs

User Management: Authority to view/edit/delete administrators

If allowed, the figure "1" will be displayed under that function, and if denied, the figure "0" will be displayed under that function.



In the example above, the administrator has the authority to view/edit/delete users in the User page.

ADDING A NEW ADMINISTRATOR

To add new administrator: Click the **Add New User** button ➡ Fill in the relevant information into the table.

The screenshot shows a 'Create User' form with the following fields:

- User Name : joyce
- Name : Joyce
- Email : joyce@fingertec.com
- Phone No. : (empty)
- Password : ****
- Confirm Password : ****
- Address : 6, Jalan BK 3/2, 47100 Puchong, Selangor, Malaysia
- Remark : (empty)
- Membership Status : Active

Define the authority level in each data field ➡ Check the checkbox to enable ➡ Click **Create User** to complete the process.

The screenshot shows a table titled 'Modules' with columns for Modules, View, Edit, and Delete. The table contains the following data:

Modules	View	Edit	Delete
User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transaction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminal List	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminal System Log	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons: Create User, Add New

A new administrator is now created and published on the main page.

To update the authority level of an administrator: Click the **Update Privilege** button ➡ Select the User ID of the administrator ➡ Redefine the authority level ➡ Click **Update** to save settings.

The first screenshot shows the 'Update Privilege' form with the following fields:

- User ID : (dropdown menu)
- Name : Joyce

The second screenshot shows the 'Update Privilege' form with the 'Modules' table and buttons:

Modules	View	Edit	Delete
User	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Transaction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminal List	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Terminal System Log	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
User Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Buttons: Update, Cancel

To update the basic information of an administrator ONLY: Click **Edit** next to the relevant administrator ➔ Update the information ➔ Click **Update** to save settings.

	User ID	User Name	Name	Address	Phone No.	Email	Date Joined	Date Login	Membership Status	Remark
Edit Delete	<input type="checkbox"/>	1	admin	admin	admin	admin@admin.com	2011-09-06 00:41:53	2011-09-27 11:41:05	Active	
Edit Delete	<input type="checkbox"/>	2	user	user	user	user@user.com	2011-09-06 00:42:51	2011-09-26 16:28:27	Active	
Update Cancel	<input type="checkbox"/>	3	joyce	Joyce	6, Jalan BK 3/2, 47100	joyce@fingertec.com	2011-09-27 12:08:12	2011-09-27 12:08:12	Active	

1-3 (Total Record(s): 3) Current page: 1

Managing & Maintaining the Database

It is advisable to perform housekeeping from time to time to maintain the Webster MySQL database and secure the data. If the database size is too big, it is recommended to purge/delete some old data before proceeding to backup database.

Database Management

Backup & Maintenance

Table
<input type="checkbox"/> webster_checkoutout
<input type="checkbox"/> webster_command
<input type="checkbox"/> webster_modules
<input type="checkbox"/> webster_opcommand
<input type="checkbox"/> webster_oplog
<input type="checkbox"/> webster_roles
<input type="checkbox"/> webster_systemsettings
<input type="checkbox"/> webster_terminal
<input type="checkbox"/> webster_user
<input type="checkbox"/> webster_userinfo
<input type="checkbox"/> webster_usertemplate
<input type="checkbox"/> webster_usertemplate_fp10

[Backup](#) [Maintenance](#)

Clear Database

Table
<input type="checkbox"/> webster_checkoutout
<input type="checkbox"/> webster_command
<input type="checkbox"/> webster_oplog

[Purge](#)

Restore

[Choose File](#) No file chosen
(Maximum upload file size is approximately 4 MB)

[Upload](#)

Administrators have the authority to do the following:

Backup database: to backup database into SQL statement to store for future reference.

Restore database: to restore SQL statement from backup file.

Maintenance: to reclaim the unused space and to defragment the data file, to optimize the database.

Clear/Purge database: to clear/purge old/unused data file. Administrator can define the date range to clear/purge.

- **To backup database**
Select types of database ➡ Click Backup ➡ Select location to save the SQL statement.
- **To do maintain database**
Select types of database ➡ Click Maintenance to proceed
- **To clear database**
Select type of database ➡ Click Purge ➡ Define date range ➡ Click Purge to proceed
- **To restore database**
Click Choose File ➡ Select the SQL statement ➡ Click Upload to proceed.

