

Remote Terminal Functionality

The timeQplus (TQP) Time & Attendance Server can transfer data to and from remote TQ600 terminals (terminals not connected via cables) through the use of a USB Pen Drive (sometimes called Flash Drives or Thumb Drives).

User data including Name, Pin#, Badge#, Fingerprint Templates can be downloaded to the TQ600 terminal via the USB Pen Drive. Short Messaging (SMS) is not an available Pen Drive option although it is listed in the TQ600 menu under Pen Drive Management. Punch data can be uploaded from the terminal to the timeQplus Server via the USB Pen Drive.

Adding a Remote Terminal

From the “Terminal” screen click on the “Remote” connection tab (see Fig 1). Click on “Add Terminal”, enter the Device ID (from the terminal) and optional description (such as the location of the terminal) and check if the terminal is a Biometric (with fingerprint reader) or Proximity (with proximity badge reader).

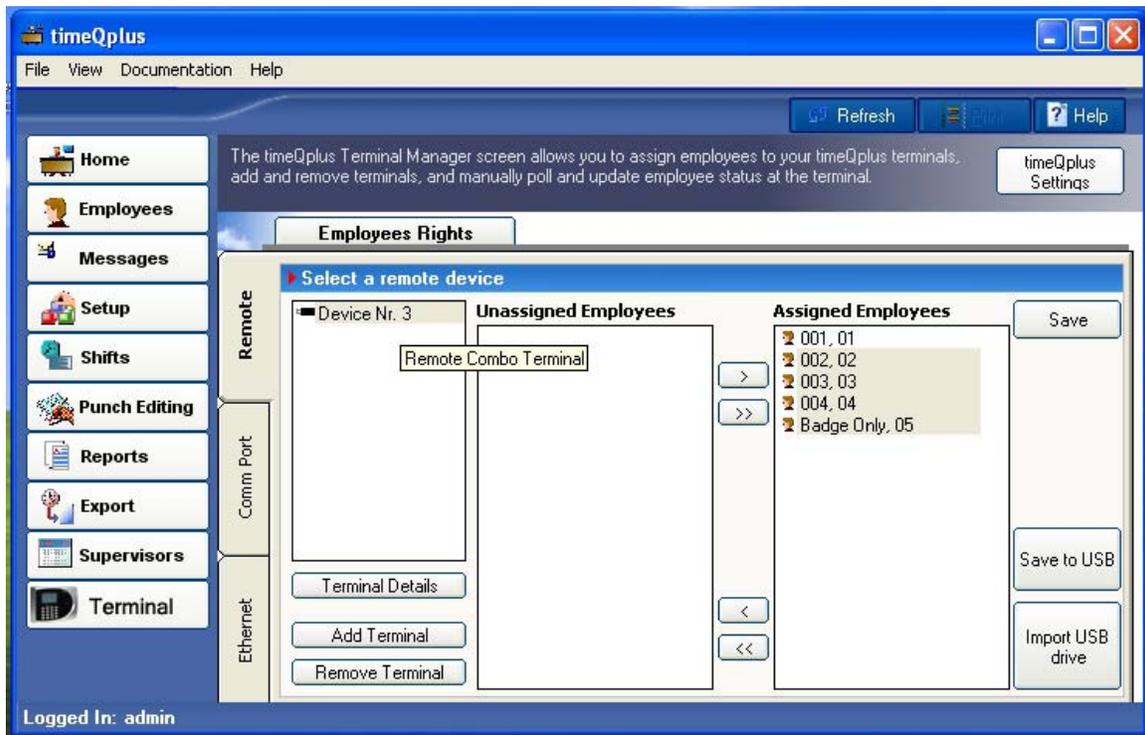


Fig 1

Loading Employee Data on a Remote Terminal

You can load Employee Data on a Remote Terminal via two methods:

- 1) Uploading Employee Info from TQP via the Pen Drive
- 2) Manually adding employees to the Terminal
- 3) Connect the terminal via cable to the TQP Server/Client and assign users then change the terminal to a remote terminal (see page 5 for more details).

Loading employee data via method #1 or #3 are the preferred methods. It eliminates the possibility of keying in an incorrect Pin# for an employee and it is also much faster if you have more than a few employees. Also when you transfer employee data from TQP to the terminal the employee names will transfer, thus when you punch you will see your name displayed on the terminal instead of your Pin#.

Uploading Employee Info from TQP:

From the “Remote” connection tab select the employees you want to assign to a remote terminal and click “Save”. Make sure you have a USB Pen Drive connected to the PC and click the “Save to USB” button.

If there are multiple USB storage devices connected to the PC you will need to specify which device you want to store the assigned employees to (see Fig. 2).

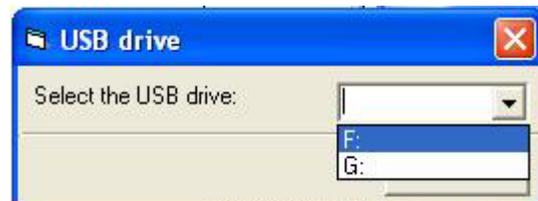


Fig 2

Two files will be downloaded to the Pen Drive: “template.dat” (fingerprint templates) and “user.dat” (Name, Pin#, Badge#). Make sure that the data is finished being written to the Pen Drive before disconnecting it (check the status indicator light on your Pen Drive to make sure it isn’t blinking).

Biometric Terminals: if you have not saved the employee fingerprint templates on the timeQplus server (ie, all your terminals are Remote terminals and you haven’t uploaded the templates to the timeQplus server via flash drive yet) you can simply save all assigned employees to a flash drive and then load them onto each Remote terminal and then enroll the fingerprints of each employee.

- 1) Add the Remote terminal. Go to the “Terminal” screen in TQP, click the Remote” tab, and click “Add Terminal”.
- 2) Assign Employees to the terminal and click “Save”
- 3) Attach Flash Drive to PC then click “Save to USB”. Note: if you have more than one Flash Drive attached to the PC timeQplus will prompt you for which drive to use. A “user.dat” file will be stored on the flash drive and “template.dat” (even if the Remote terminal isn’t biometric).
- 4) Remove the Flash Drive from the PC (we recommend that you click on the “Safely Remove Hardware” icon in the taskbar notification area in order to be sure that all Flash Drive activity has stopped)
- 5) Attach Flash Drive to Remote Terminal and Upload employees to the terminal:
Menu >PenDrive Mng >Upload User

You cannot unassign or delete users on a Biometric remote terminal by unassigning or deleting them in TQP, saving the employees to the Flash drive, and then uploading the Flash drive to the terminal. If you want to remove the employees from the remote terminal you will have to manually delete them using the terminal menu.

Proximity Terminals: if your employees have badge#'s entered in TQP and you assign them to a Remote terminal, the Badge#'s will transfer when you save the assigned employees to the Flash Drive and upload them to the Remote terminal.

Note: each time you click “Save to USB” all employees assigned to the Remote device will be downloaded to the Pen Drive even if they have already been assigned to the Remote terminal. Also note that each time you click “Save to USB” employees will be added to any existing files on the Pen drive, so if you want to only assign certain employees to a given device you will need to delete any existing files on the Pen drive before saving the next group of employees to the Pen drive for the next terminal. If you want to assign all your employees to all terminals you can save the employees to the Flash drive and then upload them to all terminals....it doesn't matter whether the target terminals are Biometric or Proximity and it doesn't matter which device ID was used to save the employees to the Flash drive.....as long as all employees were assigned to that device.

Manually adding Employees to the Terminal:

You can add employees directly to the terminal. You must make sure that the Pin# of each employee matches that employee's Pin# in the TQP database. If you add employees via this method the employee names will not be displayed when the employees punch.

Uploading Punch Data from a Remote Terminal

Connect your Pen Drive to your Remote Terminal. From the terminal press: Menu> PenDrive Mng> Download AttLog. Once the terminal has copied all punch data to the Pen Drive a message “Copy Data Suc” will appear on the terminal display indicating that the transfer of punch data was successful.

Remove the Pen Drive and connect it to the timeQplus Server. **Note that terminal data can only be uploaded to the timeQplus Server and not to any client PC's.**

Once connected you can upload data by clicking on “Import USB drive” from the terminal screen or from the timeQplus Systems Utility Screen you can click on “timeQplus Import USB drive”.

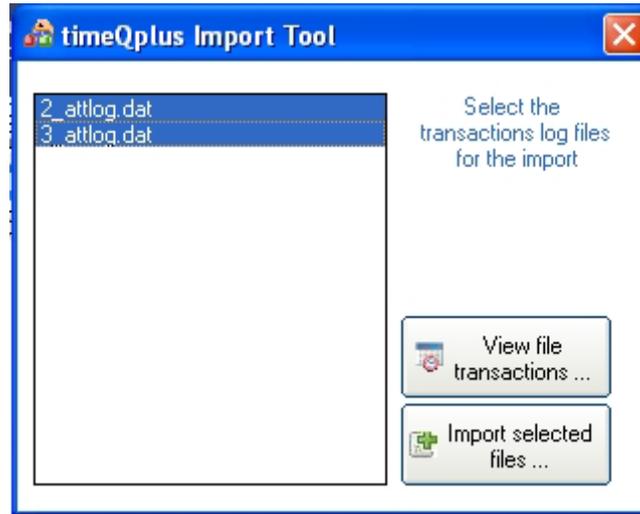
Note: if there are multiple Pen Drives with punch data connected to the PC, timeQplus will ask warn you to connect only one Pen Drive at a time (see Fig. 3).



Fig 3

After clicking on the import button the timeQplus Import Tool screen will appear (see Fig 4).

Fig 4



Highlight the file(s) you wish to import. You can click on the “View file transactions” button to preview the transaction data on the Pen Drive (see Fig 5). You can only view one file at a time.

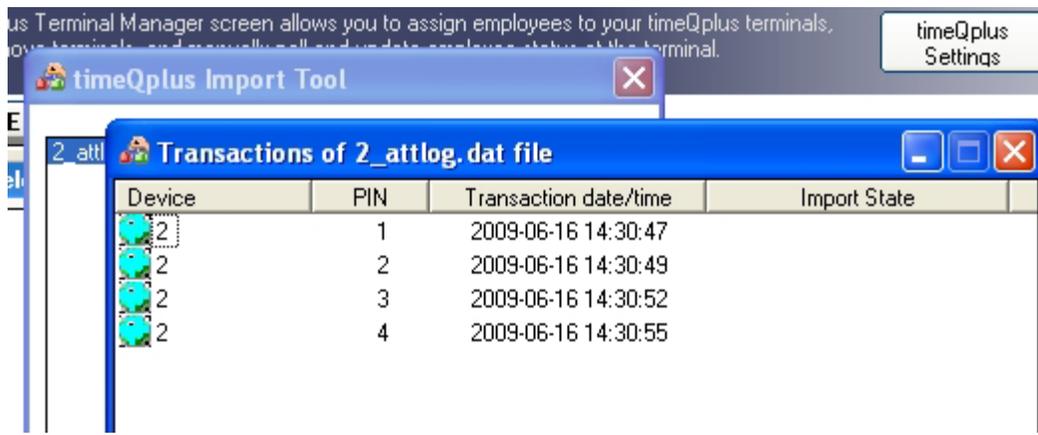
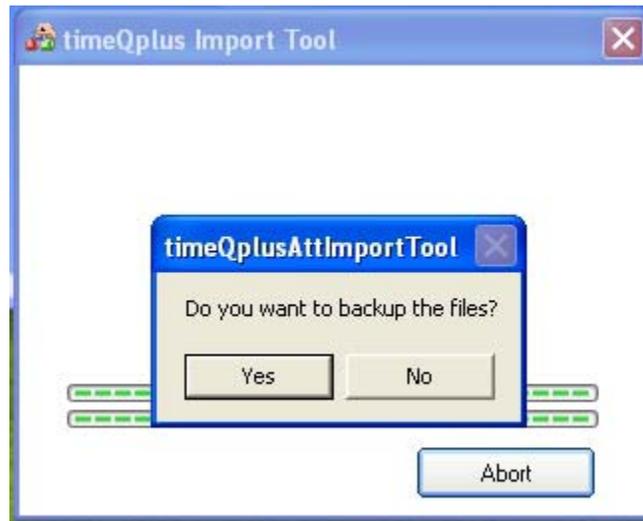


Fig 5

After the import is complete you will be asked if you want to backup the file(s) (see Fig 6).

Fig 6



Note: each time you download the ATTLLog file to the Pen Drive all transactions will be downloaded including ones previously downloaded (all transactions remain in the terminal until manually deleted). TQP will not duplicate the old transactions however over time the amount of transactions can greatly increase the upload time to the TQP server. In order to make the upload faster you can delete the AttLog from the terminal periodically (once you have verified that all transactions have been uploaded to TQP!). The raw uploaded data is also saved in the TQLogs folder in case you ever need to access the raw data.

The download data is a compressed file so a lot of punch data won't take up much space on the Pen Drive. The download from the terminal to the Pen Drive won't take very long even for larger files. The upload from the Pen Drive to TQP can become rather lengthy as TQP pulls in the data line by line to the database.

Files Downloaded from the TQ600 to the Pen Drive:

2_attlog.dat (punch data)

2_oplog.dat (not used)

2_user.dat (not used)

The "2" in the transaction file represents the Device ID. The TQ600 terminal automatically downloads 2 additional files that are not used by TQP.

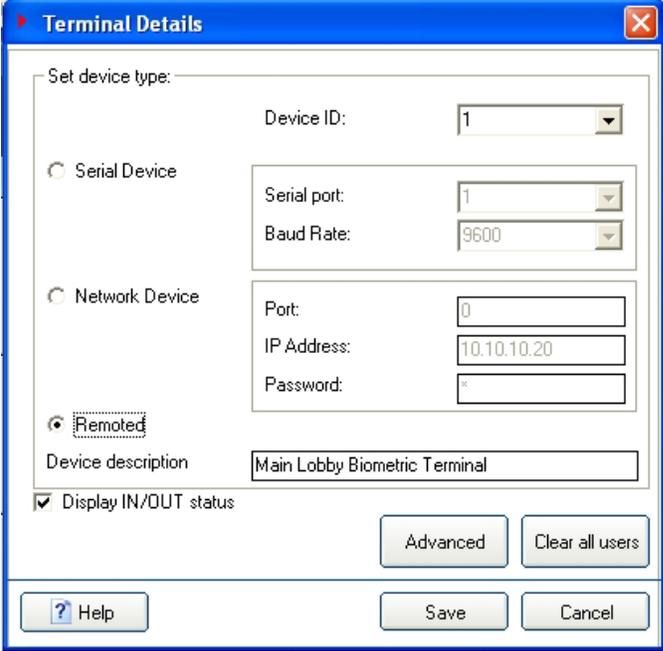
Once downloaded the 2_attlog.dat file will be deleted from the flash drive or if you chose to archive the file it will be renamed: arch_20090616_14_51_02_2_attlog.dat (archive_date_hr_min_sec_device ID_attlog.dat)

If you ever need to recover lost transactions you can re-import the backup file. First change the name back to the original format by deleting the archive information, ie, in the example above change "arch_20090616_14_51_02_2_attlog.dat" back to "2_attlog.dat" and then re-import the data.

Changing an Ethernet or Serial Terminal to a Remote Terminal:

This scenario would normally take place because a terminal is initially setup by connecting it to the TQP Server or Client, or a terminal is being moved to a new remote location or it could be because communication to an existing terminal has been lost due to a cable being cut or a router has failed.

Simply select the terminal and click on “Terminal Details” and check “Remoted” (see Fig 7). The terminal will now be moved from the Ethernet or Serial connections tab to the Remote terminal connections tab. All employees assigned to the terminal will still be assigned to it. Note that if you want to assign additional employees now you will have to add them to the terminal manually or via a Pen Drive.



The screenshot shows a window titled "Terminal Details" with a close button in the top right corner. The window contains the following elements:

- Set device type:** A group box containing three radio buttons: "Serial Device", "Network Device", and "Remoted". The "Remoted" radio button is selected.
- Device ID:** A dropdown menu with the value "1" selected.
- Serial Device section:** Contains "Serial port:" (dropdown with "1") and "Baud Rate:" (dropdown with "9600").
- Network Device section:** Contains "Port:" (text box with "0"), "IP Address:" (text box with "10.10.10.20"), and "Password:" (text box).
- Device description:** A text box containing "Main Lobby Biometric Terminal".
- Display IN/OUT status:** A checked checkbox.
- Buttons:** "Advanced", "Clear all users", "Help", "Save", and "Cancel".

Fig 7

Changing a Remote Terminal to an Ethernet or Serial Terminal:

This scenario would normally take place because a network cable has become available to connect the remote terminal or the terminal has been moved to a location where either a network cable or PC with TQP is available for serial/Direct Ethernet connectivity.

Simply select the terminal and click on “Terminal Details” (see Fig 8) and check “Serial Device” or “Network Device”. Note: Make sure you enter the Baud rate if you are connecting with a Serial cable or enter the IP Address if you are connecting via an Ethernet cable to a network. Click “Save”.

Fig 8

Terminal Details

Set device type:

Device ID: 1

Serial Device

Serial port: 1

Baud Rate: 9600

Network Device

Port: 0

IP Address: 10.10.10.20

Password: *

Device description: Main Lobby Biometric Terminal

Display IN/OUT status

Advanced Clear all users

Help Save Cancel

The terminal will now be moved from the Remote terminal connections tab to the Ethernet or Serial connections tab.

Notes:

Remote Proximity Terminals:

- 1) Employees assigned to the terminal that do not have a badge# will be unassigned when the terminal is changed from a remote device.
- 2) Employees assigned to the terminal that have a template but no badge# will be unassigned when the terminal is changed from a remote device.
- 3) Employees assigned to the terminal that have a template and a badge# will be assigned when the terminal is changed from a remote device.

Terminal Details – employees uploaded to the Remote terminal via Pen Drive will have a default password of “00000” even though Terminal Details for the Remote will not show a password.

After changing from a remote terminal to a connected terminal all employees were assigned except for employees without badge#’s. The unassigned employees did not show up on the Terminal Details screen.

Tried un-assigning employees: didn’t work first try.

Gave unassigned employees badge#’s and successfully assigned them to the terminal. Unassigned all employees...badges no longer worked and now all employees have a default password of “00000”. Assigned all employees and all badges then worked normally, some employees had password of “0”, some “00000” and some had no password.

Remote Biometric Terminals: any employees assigned to the terminal that do not have a fingerprint template will be unassigned when the terminal is changed from a remote device. If you look at terminal details the employees that were unassigned after changing from a Remote terminal will now be listed as “unknown,”. All employees will now have a default password of “00000” which means that anyone with a pin# can punch with a password should they figure out the “00000” password (any existing passwords will be over written by the “00000” password). You can delete the “00000” passwords manually from the Terminal Details screen. Quirk: if you assign and then re-assign all employees some passwords will change to “0” and some passwords will be completely deleted. If you had an employee with a badge# but no template their name will now be shown in terminal details and they will be assigned to the terminal.

Unassigned employees can punch on terminals by using the “00000” password.

If you enroll the unassigned employees they can then punch on the terminals using their fingerprints or “00000” password.

Note: if the Ethernet or Serial server isn’t already running when you switch from a Remote terminal you will need to start it.

You can download any existing transactions on the terminal after you’ve moved the terminal and connected it via Ethernet or Serial but we recommend that you download all transactions via the Pen Drive first. This is safer for two reasons:

- 1) If the employee comes across unassigned the transactions will not be pulled in
- 2) If you accidentally click on “clear transactions” when connecting the terminal all transactions will be lost.

Copying Multiple Back-up Fingerprint Templates from One Terminal to Another:

Note: timeQplus software is capable of storing only (1) primary fingerprint template for each employee, however the TQ600 terminal is capable of storing (10) fingerprint templates for each employee. If you wish to enroll multiple fingerprint templates for employees on more than one terminal you will need to download the fingerprint templates from a terminal to a flash drive then upload the fingerprint templates to one or more additional terminals.

Process:

- 1) Insert a Flash Drive into the terminal that has the multiple fingerprint templates
- 2) Select **Menu \ PenDrive Mng \ DwnLoad User**
After the download is complete you will see the terminal message "Copy Data Suc"
Press "Esc" until you exit the terminal menu
- 3) Remove the Flash Drive
- 4) Insert the Flash Drive into the next terminal
- 5) Select **Menu \ PenDrive Mng \ UpLoad User**
After the upload is complete you will see the terminal message "Copy Data Suc"
Press "Esc" until you exit the terminal menu
- 6) Remove the Flash Drive
- 7) Test an employee with multiple fingerprints to see if all templates were uploaded
- 8) Upload the User Data (repeat steps 4-7) for all remaining terminals.

Remote Terminal FAQ's:

Q: What happens if I click on "Save to USB" more than once?

A: The existing files on the USB Drive ("template.dat" and user.dat") will be overwritten.

Q: I enrolled my employees on my remote terminal. Do I need to copy fingerprint templates from my Remote terminal to the TQP database?

A: No, it is not necessary but note that if you delete the templates accidentally you will need to re-enroll your employees at the terminal since you do not have a backup copy of the templates in the TQP database.

Q: I can't see the "Import USB Drive" button. What's wrong?

A: Check to see if you are working on a timeQplus Client PC. Importing the USB drive can only be executed on the timeQplus Server PC which is why the button is not available on the client PC.

Q: What happens if my payperiod rolls more than once and I haven't uploaded my data from my Remote Terminal(s)?

A: Punch data from a remote terminal can be uploaded to the current and previous pay periods. All payperiods before the previous payperiod are archived and you cannot upload data to an archived payperiod. Punch data that falls in an archived payperiod will be imported into the "Previous" payperiod but will be highlighted in red and will have a line drawn through it indicating that it will not be used in any calculations for the Previous payperiod (see Fig. 7). Re-aligning transactions will not have any effect on the dates...they will continue to be displayed in the Previous payperiod with a line through them.

The screenshot shows the timeQplus application window. The main area displays a table of punch transactions for employee 001.01. The table has columns for Date, Time, IN/OUT, Hours, Day Total, Weekly REG, Weekly OT1, and Weekly OT2. The transactions are as follows:

Date	Time	IN/OUT	Hours	Day Total	Weekly REG	Weekly OT1	Weekly OT2
Tue 9/1/2009	8:00 AM						
Tue 9/1/2009	4:00 PM						
Mon 9/7/2009		**REG	8.00	8:00			
Tue 9/8/2009	8:00 AM	IN					
Tue 9/8/2009	4:00 PM	OUT	8:00	8:00	16:00	0:00	0:00

Below the table, there is a "Transaction" section with "Insert" and "Manage" buttons. The "Insert" section includes a date dropdown (9/6/2009), an "Insert" button, a "Punch" dropdown, and a "12:00 AM" dropdown. The "Manage" section includes "Edit Totals", "View Deleted", and "Approve" buttons. To the right, a "Totals" table shows the following data:

Totals	Hours	Edits	Total
Regular	16:00	0:00	16:00
Overtime Level 1	0:00	0:00	0:00
Overtime Level 2	0:00	0:00	0:00
Vacation	0:00		
Sick Time	0:00		
Other	0:00		
Holiday	0:00		
FMLA	0:00		

Fig 7

Q: What happens if my remote terminal is out of sync with the timeQplus server?

A: Punch data from a remote terminal is time and date stamped by the terminal, so if the terminal time is off a little bit the punch data that is uploaded to TQP will be off a little bit. While the actual punch time will be off a bit the actual time worked (duration) will still be accurate.

If the terminal date somehow changes from the current date, your time worked on time cards will still be accurate, however it is possible that some settings, holiday pay, payperiod start/end dates, etc. could be affected which would then introduce errors into the time cards

There isn't an easy fix for this case....you will probably have to manually calculate your time cards. You could manually delete the affected transactions in the punch editor and then insert the correct transaction data....but if you have more than a few employees and days of affected transactions this could require a lot of time to do. You could also try editing the transaction table....but again this would be tedious and time consuming and also run the risk of corrupting the data.

Bottom Line: periodically check to make sure the remote terminal date/time are sync'd with the TQP server. You will need to update the time on the terminal whenever you pass a DST event (unless your model has the DLST option and it has been enabled).