
TIME CLOCK COMMUNICATION



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Introduction

Qquest produces two lines of clocks, the ETC Time Clocks and the IntelliClocks. The ETC clocks were the first clocks Qquest offered and they are available in two series, the 100 Series and the 200 Series.

The 100 Series clocks collect data for time and attendance punches. The 200 Series clocks collect time and attendance plus job tracking data. There is also a subseries within the 100 Series, the Enhanced 100, or 100E, clocks. The 100E Series clocks collect time and attendance punches, and also include a keypad for entering department transfers and tips. The 100 and 200 Series clocks are also available with In/Out buttons so employees can manually designate whether a punch is an In or an Out punch. These clocks are designated as 100IO and 200IO.

The IntelliClocks form our newest line of clocks. These ergonomically-designed clocks offer all the features of the 100E and 200 clocks as premium options. Data may be entered into the IntelliClocks using the traditional magnetic cards, using barcode cards, or via direct keypad entry, if this option is enabled. The IntelliClocks have Lunch, Break, In and Out buttons, so employees may designate very specific punches. These clocks also offer multi-level password protection, and a query function that allows users with administrator-level access to produce reports directly at the clock.

Both lines of clocks are available with a variety of options, which are described later in this section.

ETC Clock Models

Time & Attendance Clocks (100 Series)

The Time & Attendance Clocks, which form the Model 100 series, collect time and attendance data.

100 - Base Clock

The Model 100 is the unit on which all other Qquest Time Clocks are based. It collects time and attendance punches and presents a host of benefits such as easy time card preparation, payroll computation, attendance monitoring, scheduling, and vacation and sick time tracking. It supports Daisy Clocks.

100E - Enhanced Time & Attendance Clock

The Model 100E includes all the capabilities of the Model 100 plus a keypad for entering department transfers and tips at the clock. It supports Daisy Clocks.

100IO - Enhanced In/Out Clock

The Model 100IO includes all the capabilities of the Model 100 plus In/Out Buttons so punches can be manually designated as In or Out punches. It supports Daisy Clocks.

Job Tracking Clocks (200 Series)

The Job Tracking clocks, which form the 200 series, collect time and attendance plus job tracking data.

200 - Job Tracking and Costing Clock

The Model 200 includes all the capabilities of the Model 100 plus a keypad and additional software to track jobs and tasks, determine job and task profitability, calculate time and labor dollars spent, and analyze actual costs versus projected costs on jobs and tasks. It supports Daisy Clocks.

200IO - Job Tracking In/Out Clock

The Model 200IO includes all the capabilities of the Model 200 plus In/Out Buttons so punches can be manually designated as In or Out punches. It supports Daisy Clocks.

VeriPrint Clock

The VeriPrint Clock includes all the capabilities of the Model 100, but employees use their fingerprints to identify themselves to the clock.

IntelliClock Models

The IntelliClocks have all the features of the 100E and 200 clocks available as premium options: department, quantity, and tips entry, plus job and task tracking. These premium options are purchased separately so that you may configure the clock to suit your needs. If you do not purchase an option with the clock, but decide you would like to add it later, you may do so at any time. Contact the Qqest Sales Department to enable options on your IntelliClock. See *Appendix A* for contact information.

The Bell/Buzzer, Daisy, and Modem options that are described below in conjunction with the ETC clocks can also be used with the IntelliClocks. Contact a Qqest Sales Representative if you wish to use one of these options with your IntelliClock. In addition, the IQ 600 model of the IntelliClock has biometric capabilities. Employees clock in using a barcode card, magnetic card, or keypad entry, then verify their identity using fingerprint identification.

Clock Options

There are several options available for both series of clocks. Clocks with these options form submodels within the two series. Each submodel is designated with a letter after the model number.

Table Time Clock-1: ETC Time Clock Sub-models

Code	Designation/Description
B	Bell - Includes a relay switch to operate an external bell or other signal device.
D	Daisy - Includes ports to connect multiple units to a master in a daisy chain.
E	Enhanced - Includes a special keypad for entering department changes and tips. (Available for the 100 series only.)
IO	In/Out - Includes In/Out buttons.
M	Modem - Includes connection for an internal or external modem so data can be collected at remote locations and facilities. Note: The Modem Clocks cannot support Daisy Clocks.

Table Time Clock-2: ETC Models and Features Comparison

Model	Dept. Entry	Tips	JTS Entries	JTS Qty	Master Clock	Daisy Clock	Daisy Support	Modem Comm.	I/O Buttons	Bell
100					X		X			
100B					X		X			X
100D						X				
100DB						X				X
100M					X			X		
100E	X	X			X		X			
100EB	X	X			X		X			X
100ED	X	X				X				
100EDB	X	X				X				X
100EM	X	X			X			X		
100IO	X	X			X		X		X	

Table Time Clock-2: ETC Models and Features Comparison

Model	Dept. Entry	Tips	JTS Entries	JTS Qty	Master Clock	Daisy Clock	Daisy Support	Modem Comm.	I/O Buttons	Bell
100IOB	X	X			X		X		X	X
100IOD	X	X				X			X	
100 IODB	X	X				X			X	X
100IOM	X	X			X			X	X	
200			X	X	X		X			
200B			X	X	X		X			X
200D			X	X		X				
200DB			X	X		X				X
200M			X	X	X			X		
200IO			X	X	X		X		X	
200IOB			X	X	X		X		X	X
200IOD			X	X		X			X	
200 IODB			X	X		X			X	X
200IOM			X	X	X			X	X	

The clock submodels are described in more detail later in this tab section.

Time Clock Configuration

The Time Clock Configuration utility allows you to create a central database for your clocks that includes a graphical representation of the clocks and their relationship to one another. If you are using IQ 600 Biometric clocks, this utility is also where you'll download, store, and upload your employees' fingerprint templates. Setting up and maintaining the Clock Configuration database properly will provide you with a useful tool.

The Time Clock Configuration utility installs separately from the main program. You will find the installation on the Gold Suite 2 Companion CD.



Note: You must install the Configuration utility to the Gold 2 directory. If you do not, the utility will not function.

Once the installation is complete, click on **Start | Programs | Gold Suite 2 | Time Clock Configuration** to open the utility.

Clocks

The Clock Configuration window opens with one tab visible, the Clocks tab. See Figure TIME CLOCK-1.

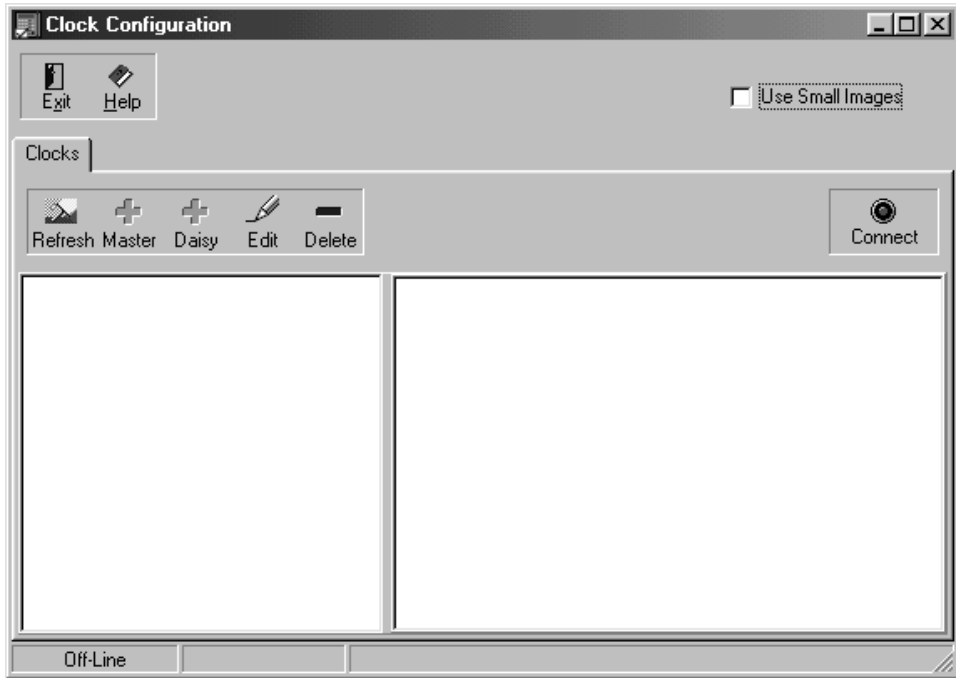


Figure TIME CLOCK-1

Initially the Clocks tab is empty. You can add clocks manually by clicking on the [Master] button. Once you have added Master clocks, you can add daisy clocks to a master by highlighting the master clock record and clicking on the [Daisy] button.

In addition, if a clock is connected to the computer on which you are working, the utility can detect the clock. To add a clock using this method, right-click in the left pane of the Clocks tab. An options menu appears. See Figure TIME CLOCK-2.

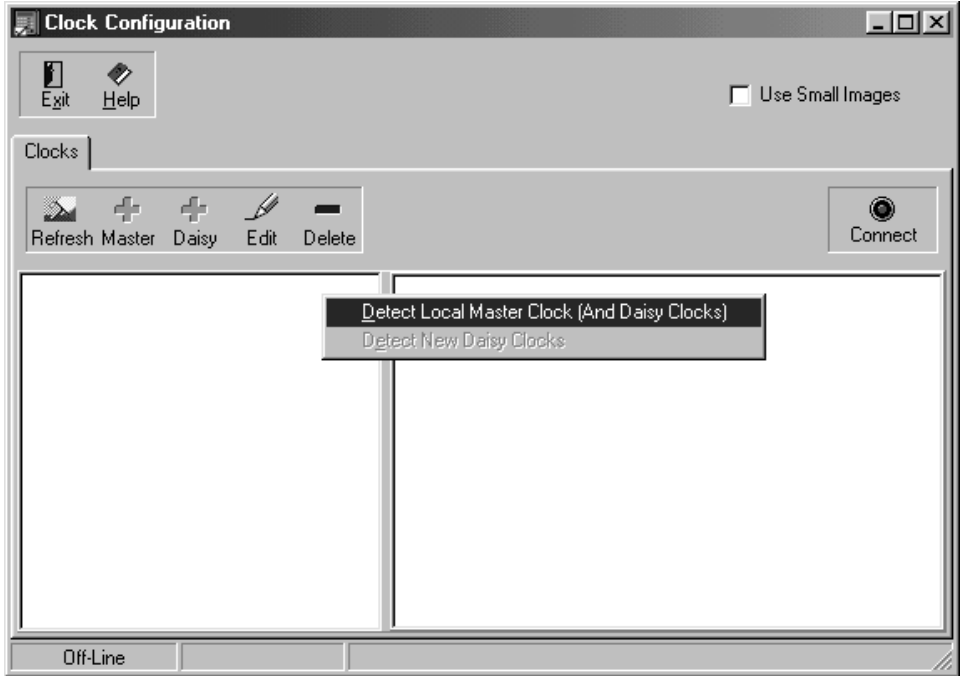


Figure TIME CLOCK-2

Click on the **Detect Local Master Clock (And Daisy Clocks)** option. The system goes online to find the clock (or clocks). When it does, the clock record appears on the tab. See Figure TIME CLOCK-3.

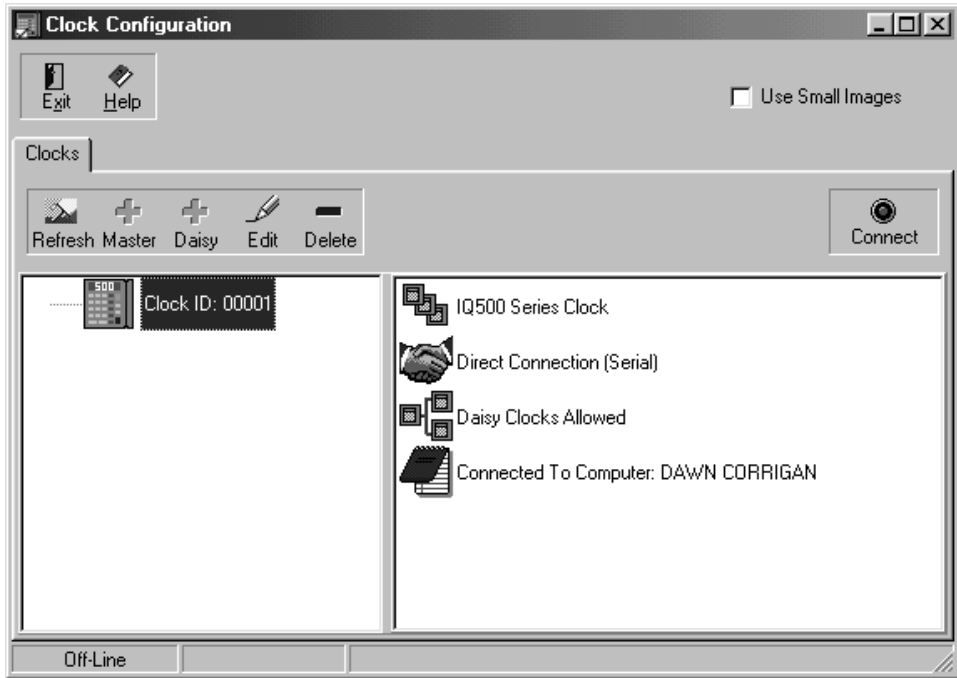











Figure TIME CLOCK-3

Clock Configuration Icons

The Clocks tab uses a number of icons to represent different aspects of the Qqest time clocks. Those icons and an explanation of each of them are found in Table Time Clock-3.

Table Time Clock-3: Clock Configuration Icons

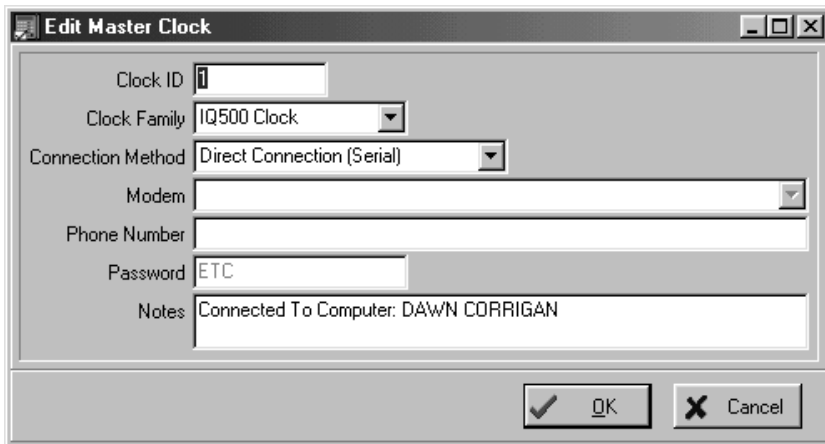
Icon	Description
	This icon represents IQ 500 IntelliClocks.
	This icon represents IQ 600 Biometric clocks.
	This icon represents clocks from the ETC series.
	This icon is used to indicate to which series the clock belongs: ETC, IQ 500, or IQ 600.
	This icon indicates the connection used to communicate with the clock. The text beside the icon specifies the type of connection: Direct Connection (Serial), Daisy Connection (Connect to Master Clock), or Remote Connection (Modem).
	This icon indicates that the clock is capable of supporting daisy clocks (i.e., it is a serial master).
	This icon indicates that the clock cannot support daisy clocks. Modem clocks cannot support daisy clocks.
	This icon is used to indicate the Modem type, Password, and Phone number of each modem clock.
	This icon is used to indicate the contents of the Notes field from the clock profile. By default, the utility lists the computer the clock is connected to in this field.

Clock Details

By default, the system defines new clocks that you add as IQ 500 clocks. If this is not the correct series ID, you can edit the record by highlighting it and clicking on the [Edit] button. An Edit Clock dialog appears. The fields on this dialog vary depending on the type of clock.

Edit Master Clock

The Edit Master Clock dialog is shown in Figure TIME CLOCK-4.



The screenshot shows a dialog box titled "Edit Master Clock". It contains the following fields and controls:

- Clock ID:** A text input field containing the number "1".
- Clock Family:** A dropdown menu currently set to "IQ500 Clock".
- Connection Method:** A dropdown menu currently set to "Direct Connection (Serial)".
- Modem:** A text input field with a dropdown arrow on the right.
- Phone Number:** A text input field.
- Password:** A text input field containing the text "ETC".
- Notes:** A text area containing the text "Connected To Computer: DAWN CORRIGAN".
- Buttons:** "OK" and "Cancel" buttons are located at the bottom right of the dialog.

Figure TIME CLOCK-4

Clock ID

Each clock should have a unique clock ID. By default this field is set to 1 and you must edit it. Be sure the ID you set here matches what is set in the physical clock.

Clock Family

By default, this field is set to IQ500 Clock. Click on the drop-down arrow to make another selection.

Connection Method

The choices here are Direct Connection (Serial) or Remote Connection (Modem). The clocks are defined as Serial clocks by default. Click on the drop-down arrow to change this setting.



Note: If a master clock has daisy clocks assigned to it, you cannot select Remote Connection in this field. You must first reassign the daisy clocks. To do so, highlight a daisy clock record and assign it to a different master clock using the drag and drop method.

Modem / Phone Number / Password

These fields are disabled for master serial clocks. They are enabled when Remote Connection is selected as the connection method. See the “Edit Modem Clock” section below.

Notes

The Notes field is a free form text field where you can type in any notes or special instructions associated with the clock. The system automatically lists known computer connections in this field.

When you are finished editing the Master clock record, click on [OK].

Edit Daisy Clock

The Edit Daisy Clock dialog is shown in Figure TIME CLOCK-5.



Figure TIME CLOCK-5

Clock ID

You should assign each daisy clock a unique ID. By default this field is set to 1 and you must edit it. The system will not let you attach two daisy clocks with the same ID to the same master.

Clock Family

By default, this field is set to IQ500 Clock. Click on the drop-down arrow to make another selection.

Notes

The Notes field is a free form text field where you can type in any notes or special instructions associated with the clock.

When you are finished editing the Daisy clock record, click on [OK].

Edit Modem Clock

The Edit Modem Clock dialog is similar to the Edit Master Clock dialog (see Figure TIME CLOCK-4), but all fields are enabled.

Clock ID

Each clock should have a unique clock ID. By default this field is set to 1 and you must edit it. Be sure the IDs you set here match what is set in the physical clock.

Clock Family

By default, this field is set to IQ500 Clock. Click on the drop-down arrow to make another selection.

Connection Method

The choices here are Direct Connection (Serial) or Remote Connection (Modem). The clocks are defined as Serial clocks by default. Change the setting to Remote Connection for modem clocks.



Note: If a master clock has daisy clocks assigned to it, you cannot select Remote Connection in this field. You must first reassign the daisy clocks. To do so, highlight a daisy clock record and assign it to a different master clock using the drag and drop method.

Modem

This field is enabled when you select Remote Connection as the connection method. Click on the drop-down arrow and select the modem for this clock.

Phone Number

This field is enabled when you select Remote Connection as the connection method. Type in the phone number used to call this clock.

Password

This field is enabled when you select Remote Connection as the connection method. By default, the password is set to ETC for all clocks. You may leave this password or change it.

Notes

The Notes field is a free form text field where you can type in any notes or special instructions associated with the clock.

When you are finished editing the Modem clock record, click on [OK].

Connect



Click on the [Connect] button to connect to the highlighted clock. When you do, the Configuration tab appears.

Configuration

The Configuration tab is used to modify settings for the physical clock, such as Clock ID, ranges, and relays events. The tab has several subtabs. The Clock Parameters subtab is open by default. See Figure TIME CLOCK-6.

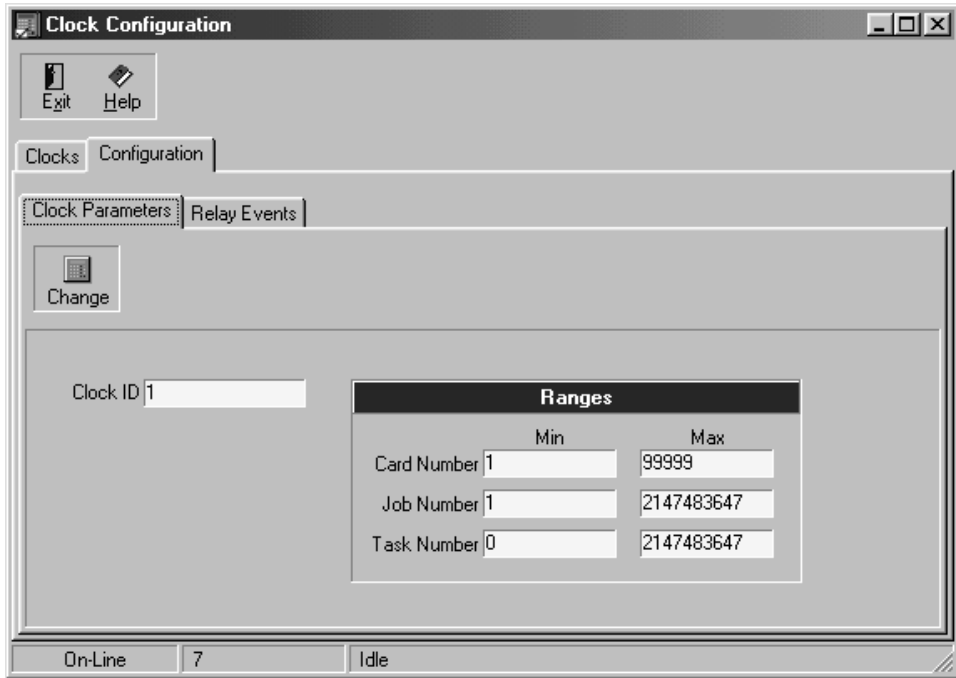


Figure TIME CLOCK-6

Clock Parameters

The read-only fields of the Clock Parameters subtab show the parameters, as defined in Gold Suite, for the selected clock. If you wish to edit the parameters from this window, click on the [Change] button. An Edit Clock Parameters dialog appears. Make the desired changes, then click on [Save].

Relay Events

The Relay Events subtab includes 32 relay events and several buttons to help you edit the relay events to suit your needs. If you have turned on one or more relay events in Gold Suite for the selected clock, those set-

tings will appear here. Otherwise, all relay events are turned off by default.

[Relays] button

Click on the [Relays] button to edit relay events for this clock.

[Clear] button

Click on the [Clear] button to clear the highlighted relay event. The selected relay event returns to the default setting (is turned off).

To turn on a relay event, highlight one of the relay items in the table and click on the [Edit] button. The Edit Relay dialog appears.

When

Duration

Type in the number of seconds that this relay event will be active (the length of time you want the bell to sound). If you type in “0” seconds, the relay event will not occur.

Time of day

Type in the time of day, in 24-hour format, when you want this relay event to occur.

Pulse

When the relay event occurs, it can either pulse for its duration or it can sound continuously.

On

If this option button is selected, the bell or buzzer sounds as a series of pulses (on...off...on...off...on...off) for the duration of the event.

Off

If this option button is selected, the bell or buzzer sounds continuously for the duration of the event.

Days of the Week

Click on the checkbox next to the days of the week on which you want this event to occur. The event will not occur on days that have no checkmark.

When you are finished editing a relay event, click on [Save] to save the changes. If you do not want to save the changes, click on the [Cancel] button.

Fingerprint Templates

If the selected clock is an IQ 600 Biometric unit, a third subtab, Fingerprint Templates, appears on the Configuration tab. See Figure TIME CLOCK-7.

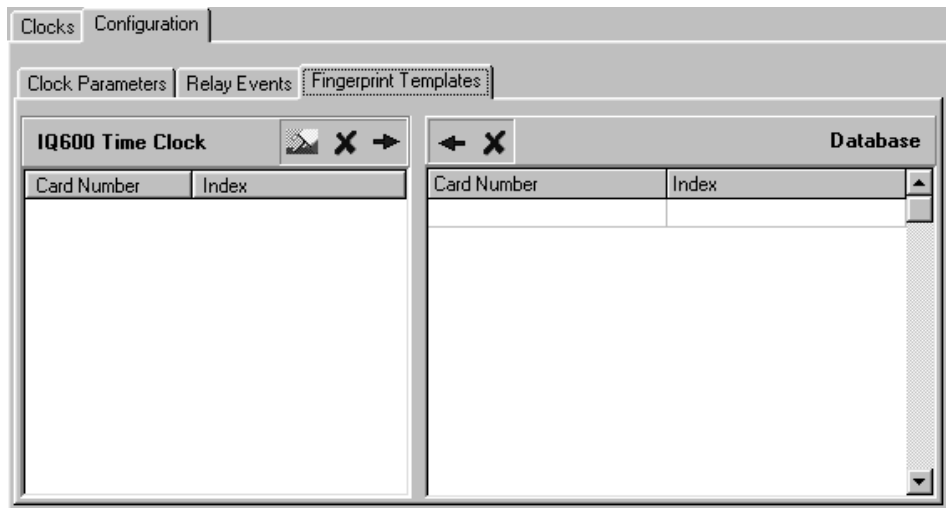


Figure TIME CLOCK-7

You can use this tab to copy your employees' fingerprint templates from an IQ 600 Biometric clock to your Gold Suite database. From the database, you can send the templates to any additional local IQ 600 units that you have. In addition, storing the templates in the database provides a backup. This is useful in the rare instance of a catastrophic event at the IQ 600 unit that causes the templates to be lost.

Copying Templates

To copy fingerprint templates from an IQ 600 unit to the Gold Suite database, first connect to an IQ 600 clock that has enrolled employees. Next, click on Configuration | Fingerprint Templates. The templates appear in the left-hand panel labeled “IQ 600 Time Clock.” See Figure TIME CLOCK-8.

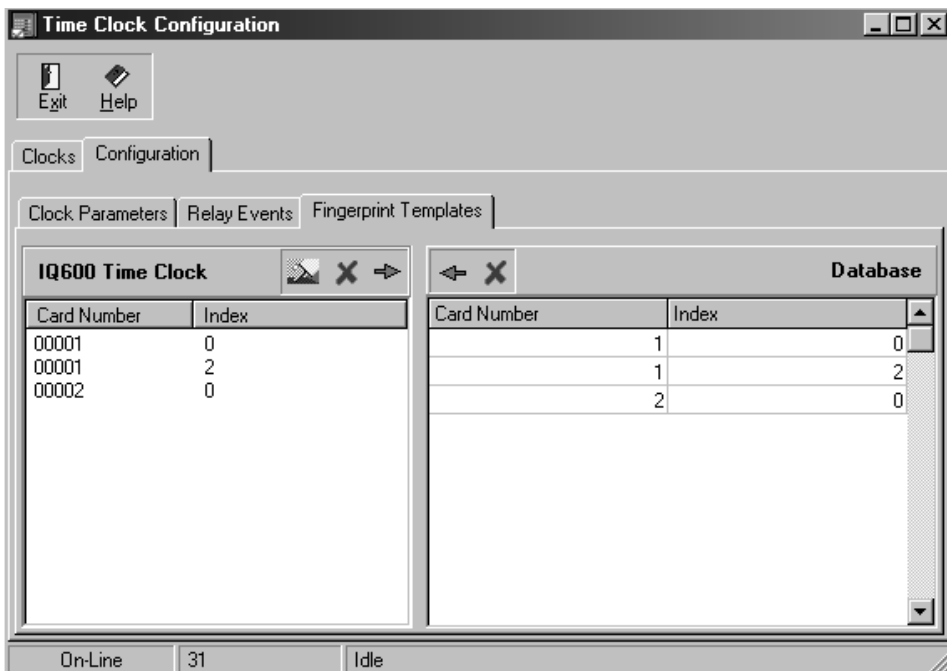


Figure TIME CLOCK-8



Note: Employees must already be enrolled at the clock you’ve selected in order for this procedure to work. For instructions on enrolling employees at the clock, please see the *IQ 600 Quick Start Guide*.

Procedure: Copying Templates from a Clock to the Database

1. Highlight the template or templates you wish to copy to the database. You may use the <Shift> or <Ctrl> keys to highlight more than one template at a time.
2. When all the templates are highlighted, click on the red arrow pointing to the right. The templates are copied to the database and now also appear in the right-hand panel labeled “Database.”

Procedure: Copying Templates from the Database to a Clock

1. Select the next IQ 600 unit from the Clocks tab of the Configuration utility and click on [Connect].
 2. The Configuration tab appears. Click on Configuration | Fingerprint Templates.
 3. The available templates appear in the right-hand panel labeled “Database.”
 4. Highlight the templates you wish to copy to the selected clock. To copy all templates, click on the first template so that it is highlighted. Hold down the shift key on your keyboard, then click on the last template. This highlights all the templates.
 5. Click on the red arrow pointing to the left. The software copies all the templates from the database to the clock. When it is finished, all the templates from the old clock will be available in the new one.
 6. Repeat steps 1-5 for each IQ 600 clock that needs the fingerprint templates added.
-

Bell/Buzzer Clock - Sub-Model B

The Sub-model B clock includes a small but powerful relay or electro-mechanical switch that sounds a bell or buzzer at various times. This allows you to set up relay events.

Relay Events

A relay is an electromechanical device in which the opening or closing of one circuit activates another device, much like a switch.

In a work area, a relay can be used to automatically activate an attention-getting device such as a bell, buzzer, horn or light at predetermined times during the day. The resulting signal usually announces the beginning or end of a shift or lunch period.

With the Model B Clock, a signal device is connected to a relay connection inside the Qquest time clock. This relay, similar to an ordinary light switch, is opened and closed by user-definable commands sent from the software.

At times that you determine, the software sends a command for the relay to close, complete the electrical circuit, and activate the signal device for a specific length of time. Each instance where the software command causes the signal to be emitted is called a relay event. A Model B time clock can handle up to 32 relay events.

Installation

The following three procedures will guide you in connecting your bell or buzzer to the relay connection on your time clock.

WARNING: The relay connection on the Time Clock will handle electricity from a standard 120 VAC circuit. Because of the danger of electrical shock, Qquest strongly recommends that you have a qualified electrician perform the following procedures.

Procedure: Removing the motherboard

1. Disconnect all cables from the time clock and remove the clock from the wall (if it has already been mounted).
2. On the back of the clock, remove the 10 visible screws and carefully remove the back panel.
3. Unplug the card reader cable and the keypad cable (if so equipped).
4. Remove the four screws holding the motherboard to the inside of the case. See Figure TIME CLOCK-9.

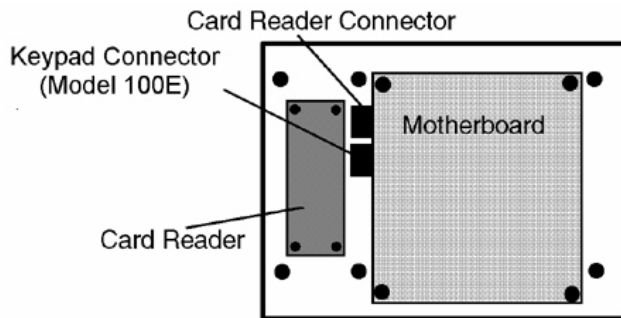


Figure TIME CLOCK-9

5. Carefully remove the motherboard from the case.

Procedure: Connecting the bell/buzzer and power source

1. Lay the motherboard on a flat, secure surface with the electronic components facing up. The relay connection is on the lower left corner of the motherboard. See Figure TIME CLOCK-10.

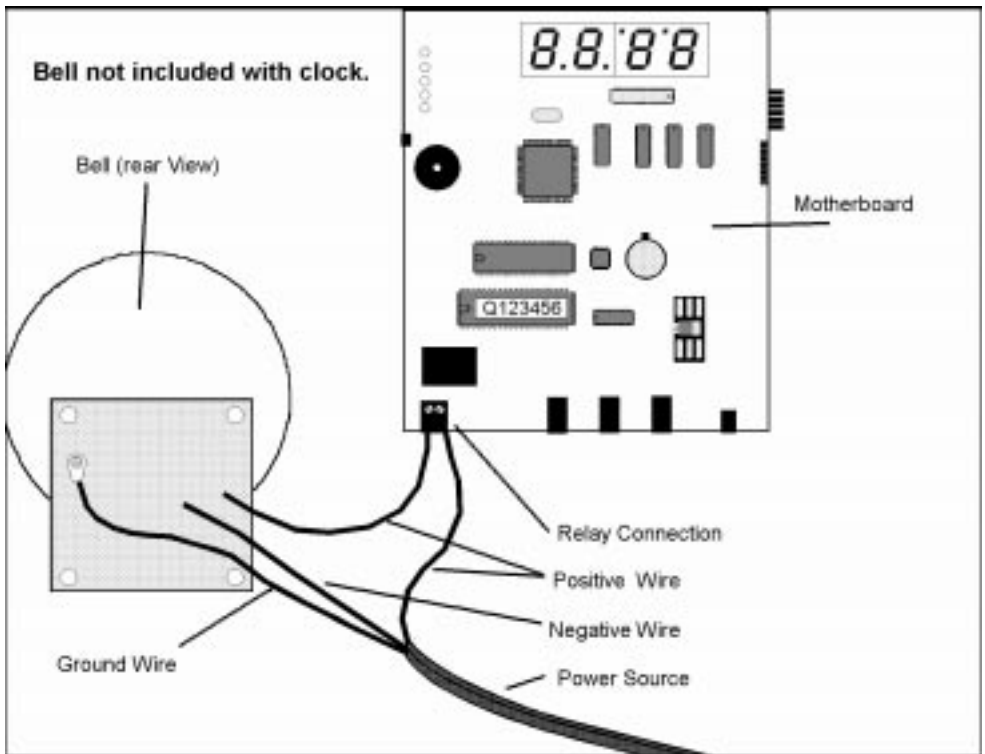


Figure TIME CLOCK-10

2. Loosen both screws on the top of the relay connection.



Note: Make sure the electrical wires are not live. Serious injury or death can result from coming in contact with live electrical wires.

3. Locate the three bell wires. One is the ground wire; one is the power source positive wire; and one is the power source negative wire.
4. Connect the power source ground wire to the ground terminal on the bell.
5. Connect the power source negative wire to the negative terminal on the bell.

6. Connect the power source positive wire to the positive terminal on the bell.
7. Measure an appropriate distance down the power source positive wire from the bell and cut the power source positive wire. (The distance between the bell and the place where you cut the positive wire determines how far the bell can be from the clock.) **Make sure you cut ONLY the positive wire.**
8. Use a pencil or similar instrument to punch out the pre-scored hole in the back panel of the clock.
9. Strip 1/4 inch of insulation from each of the two positive wire ends created in Step 7 and thread both of them through the hole in the back panel of the clock.
10. Insert one exposed wire end into each of the two holes on the relay connector.
11. Tighten both screws to secure the wires.

Procedure: Replacing the Motherboard

1. Carefully place the motherboard into the case. Ensure that the indicator lights and connectors line up correctly with the slots and holes in the case.
 2. Screw the motherboard in place.
 3. Plug the card reader cable and key pad cable (if so equipped) into their respective connectors.
 4. Replace the back panel and screw it into place. The wires from the relay connection extend from the hole in the back panel.
 5. Attach the clock and bell to the wall in their respective locations.
 6. Connect the clock and bell to their power sources and reconnect the clock's communication cable.
-

Setting Relay Events



To set relay events, click on the Clock Relay Events icon or click on Modules | Time & Attendance | Time Clocks | Clock Relays Events. See Figure TIME CLOCK-11.

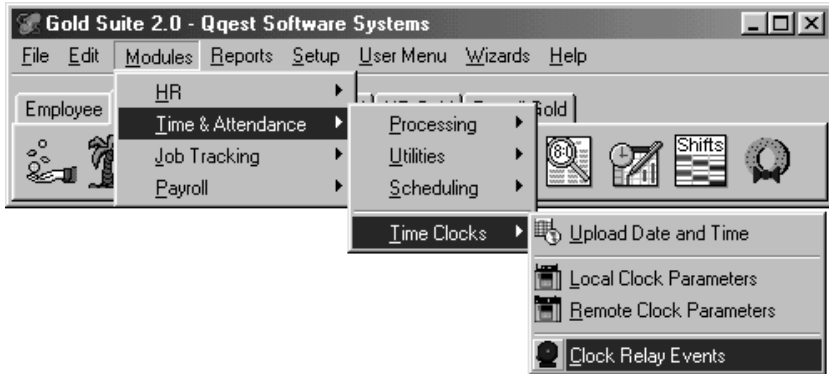


Figure TIME CLOCK-11

The Local Clock Parameters dialog appears with the Clocks tab open by default. It searches for and then displays a list of all local clocks connected to the system. See Figure TIME CLOCK-12.

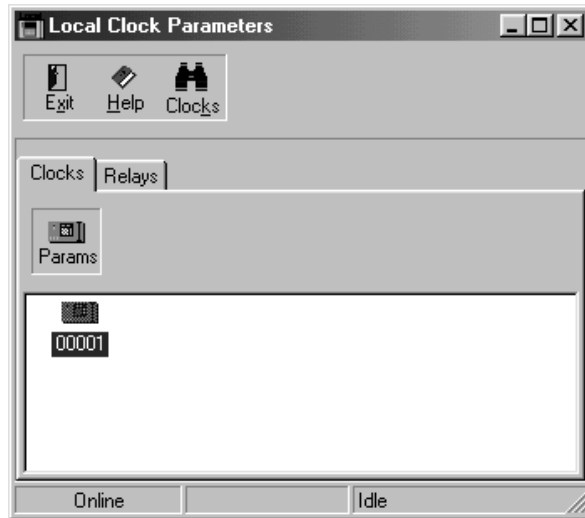


Figure TIME CLOCK-12

To access the clock for which you want to set relay events, highlight it and click on the Relays tab. The Relays tab opens with a list of default relay events that you may edit to suit your needs. See Figure TIME CLOCK-13.

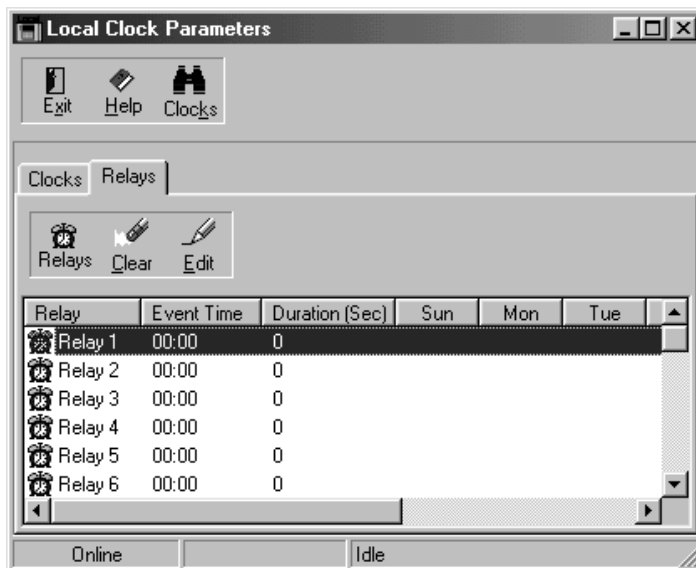


Figure TIME CLOCK-13

Relay Events

The Relays tab includes 32 relay events and several buttons to help you edit the relay events to suit your needs. By default, all 32 relay events are turned off.

[Relays] button

Click on the [Relays] button to edit relay events for this clock.

[Clear] button

Click on the [Clear] button to clear the highlighted relay event. The selected relay event returns to the default setting (is turned off).

To turn on a relay event, highlight one of the relay items in the table and click on the [Edit] button. The Edit Relay dialog appears. See Figure TIME CLOCK-14.

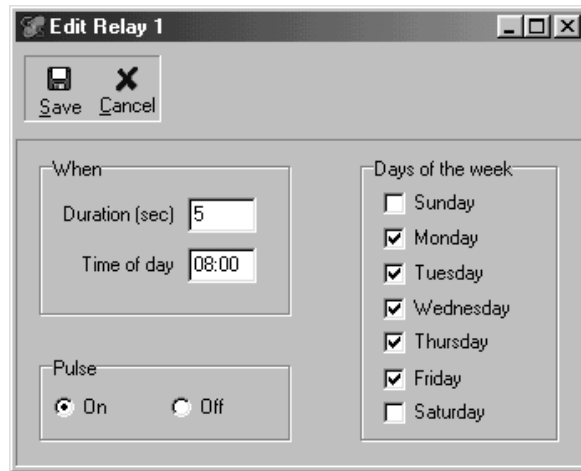


Figure TIME CLOCK-14

When

Duration

Type in the number of seconds that this relay event will be active (the length of time you want the bell to sound). If you type in “0” seconds, the relay event will not occur.

Time of day

Type in the time of day, in 24-hour format, when you want this relay event to occur.

Pulse

When the relay event occurs, it can either pulse for its duration or it can sound continuously.

On

If this option button is selected, the bell or buzzer sounds as a series of pulses (on...off...on...off...on...off) for the duration of the event.

Off

If this option button is selected, the bell or buzzer sounds continuously for the duration of the event.

Days of the Week

Click on the checkbox next to the days of the week on which you want this event to occur. The event will not occur on days for which there is no check mark in the box.



Note: Relay events are assigned to a time, but not a day, so one relay event can be set so that it occurs on one day or many days.



Example: A facility needs a bell to sound four times a day (8:00 a.m. to start the shift, 12:00 p.m. to start the lunch period, 1:00 p.m. to end the lunch period and 5:00 p.m. to end the shift). All four “bells” must sound five days a week (Monday through Friday). That is a total of 20 occurrences, but the program only needs four relays events to fulfill these requirements.

When you are finished editing a relay event, click on [Save] to save the changes. If you do not want to save the changes, click on the [Cancel] button.

Daisy Chain - Sub-model D

Use the Model D, or “Daisy Chain” model, to enjoy the convenience and functions of our powerful Time and Attendance products with the added benefit of having multiple clocks connected together in a series throughout your facility.

Features of the Daisy Chain

- **Unlimited number of clocks** - You can have a clock at each station in your company or time clocks at numerous entry and exit points for time and attendance.
- **Expandable** - The last clock on the chain can be up to 4,000 ft. away from the main unit (that's more than three-quarters of a mile).
- **All clocks are easily accessible** - You can set each clock's parameters (date, time, clock ID) and download the punches from one computer.

Requirements for the Daisy Chain

There is one requirement that must be met prior to using the Daisy chain unit:

The EPROM version of your time clock must be greater than 3.0. To determine the version of your EPROM (the programmable chip inside the time clock), unplug the AC power from the clock. Then plug the power in and note the number that flashes on the numeric display for a brief moment before the current time appears. The number that is displayed is the EPROM version. If no number is displayed, the EPROM is older than version 1.40 and needs to be replaced. Contact Qquest Software Systems. If the number displayed is 3.0 or greater, the EPROM version is greater than 3.0 and you do not have to replace the chip.

Installation

There are two steps to installing the “Daisy Chain” unit. Even if you are not technically oriented, using these simple instructions should get you up and running in minutes. The easiest way to differentiate between different models of the Time Clock is to look at the bottom of the front panel. You will see a small gray template that identifies the different ports and indicates the clock’s model number. See Figure TIME CLOCK-15.

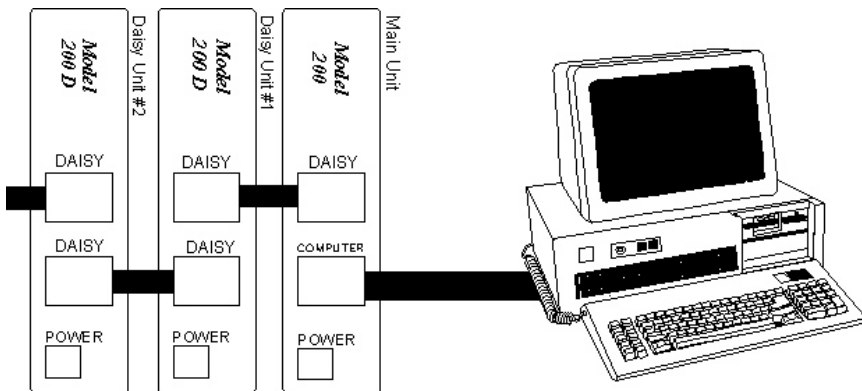


Figure TIME CLOCK-15

To connect the first Model D unit to the main (master) unit, plug one end of the cable into the main unit’s open RS-485 port labeled “DAISY” and the other end of the cable into one of the Model 100D’s RS-485 ports. Each additional unit must be linked to the others by plugging a cable from the last Model 100D’s open RS-485 port to one of the RS-485 ports on the next Model 100D. At the end of the chain, the last open port does not need to have a cable plugged into it.

You may connect as many daisy chain units to each other as you wish, as long as the last unit in the chain is no more than 4,000 feet away from the master unit. Since connector cables for the Model D clocks can vary a great deal in length, you may purchase custom cables from Qquest Software Systems.

You may also make your own custom cables. Qquest recommends using Category 5 (CAT5) shielded wire.

Each clock must have a unique ID number.

While only the master clock is connected, change its ID using Local Clock Parameters. Then connect the Daisy units one at a time. Change each Daisy unit's ID before you connect the next Daisy unit.

Modem - Sub-Model M

The Modem Clocks are the only clocks that do not permanently connect to your computer, whether directly or indirectly. Designed for remote locations or areas that are outside the 4,000 foot range of the Sub-Model D Clocks, these clocks contain a modem and are plugged into a telephone wall jack. You connect to the clock through a modem in your computer and periodically download the punches stored in the clock.

Installation

Installing a modem clock is only slightly different from installing a standard clock. To mount the clock on the wall, refer to the instructions in the *Introduction* tab section.

Procedure: Connecting the Modem Clock

1. Insert the small round connector on the power cord into the opening on the bottom of the Time Clock labeled POWER.
2. Plug the transformer on the other end of the cord into a standard 120VAC electrical outlet.
3. Insert one of the square, plastic RJ-11 connectors of the Telephone Adapter Cable into the port of the bottom of the Time Clock labeled PHONE COMPUTER DAISY until it locks into place.
4. Insert the other RJ-11 connector on the other end of the Telephone Adapter Cable into an active telephone wall jack until it locks into place.

Remote Clock Parameters

From the computer running Gold Suite, you must tell the computer where it can find the modem clocks before you can begin downloading punches.



To access Remote Clock Parameters, click on Modules | Time & Attendance | Time Clocks | Remote Clock Parameters. See Figure TIME CLOCK-16.

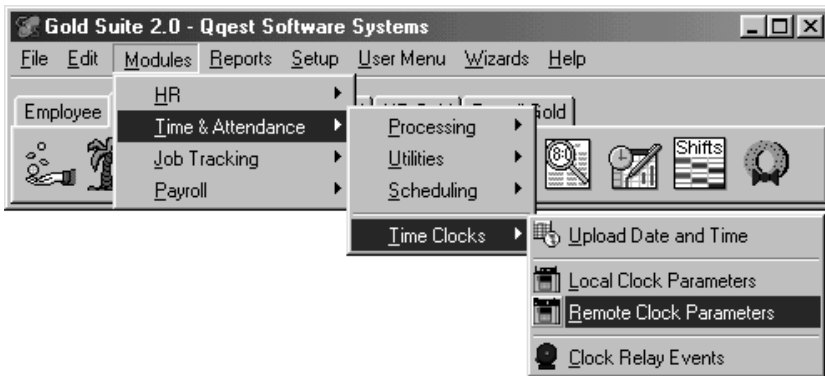


Figure TIME CLOCK-16

The Remote Clock Parameters window appears. See Figure TIME CLOCK-17.

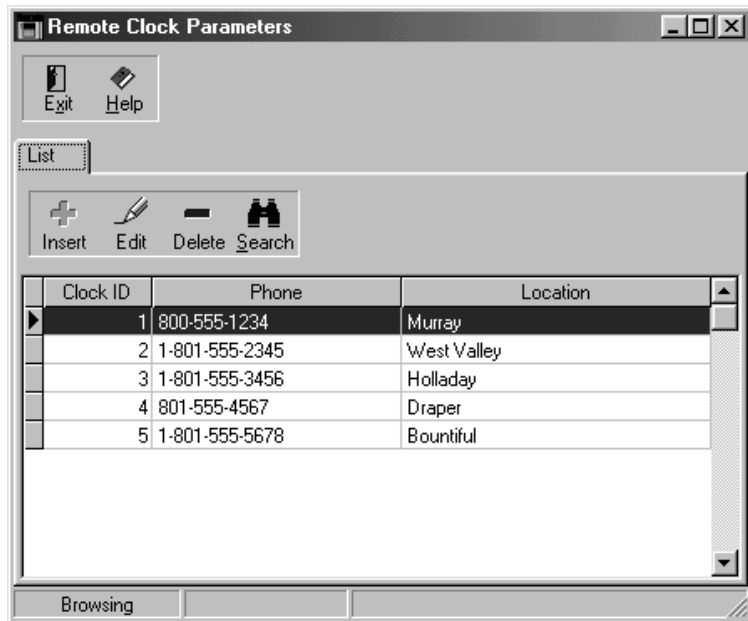
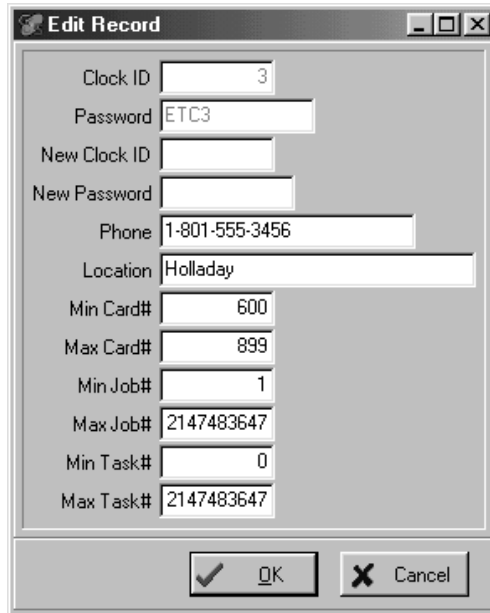


Figure TIME CLOCK-17

If no Modem Clocks have been defined, the table is empty. Otherwise, the table lists each modem clock's Clock ID, telephone number and a description of the clock's location.

To add a modem clock, click [Insert]. To edit an existing modem clock, click on [Edit]. In either case, the Edit Record dialog opens. See Figure TIME CLOCK-18.



Clock ID	3
Password	ETC3
New Clock ID	
New Password	
Phone	1-801-555-3456
Location	Holladay
Min Card#	600
Max Card#	899
Min Job#	1
Max Job#	2147483647
Min Task#	0
Max Task#	2147483647

Figure TIME CLOCK-18

A number of fields must be populated before the computer will recognize and communicate with a remote clock.

Clock ID

To access a Modem Time Clock you must use the correct clock ID and password. If you are adding a new remote clock profile then type in the clock ID for the Modem Time Clock here. The default clock ID is 1.



Note: This field is only available when you are adding a new Modem Time Clock. If you wish to change the clock ID of an existing Time Clock, use the New Clock ID field.

Password

To access a Modem Time Clock, you must use the correct clock ID and password. If you are adding a new remote clock profile then type in the password for the Modem Time Clock here. The default password is "ETC."



Note: This field is only available when you are adding a new Modem Time Clock. If you wish to change the password of an existing Time Clock use the New Password field.

New Clock ID

If you want to change the clock ID of an existing time clock, type the new ID number here. Qquest recommends that you change the ID number from the factory default.

New Password

If you want to change the password of an existing time clock, type in the new password here. Qquest recommends that you change the password from the factory default.

Phone

Type in the telephone number that will be used to call this Modem Time Clock.

Location

Type in a description of the location of this Modem Time Clock.

Min Card #

Type in the smallest valid card number you want authorized to use this clock. Any card swipes with numbers lower than the number in this field will generate an error when you swipe the card. The default is 1.

Max Card #

Type in the largest valid card number you want authorized to use this clock. Any card swipes with numbers higher than the number in this field will generate an error when you swipe the card. The default is 99999.

The last four fields are used only by Job Tracking and Costing Time Clocks.



See Also: For more information on the Job Tracking Time Clocks, refer to the *Job Tracking Gold* tab section.

When you are finished changing the clock parameters, click on the [OK] button to save the changes.

Setting Remote Clock Communication

Once your computer recognizes the modem clocks, you may connect and download punches. To communicate with a remote clock you must know its Clock ID and Password.



To start communication with your remote clock, click on the Time Clock Communication icon or on Modules | Time & Attendance | Processing | Time Clock Communications. See Figure TIME CLOCK-19.

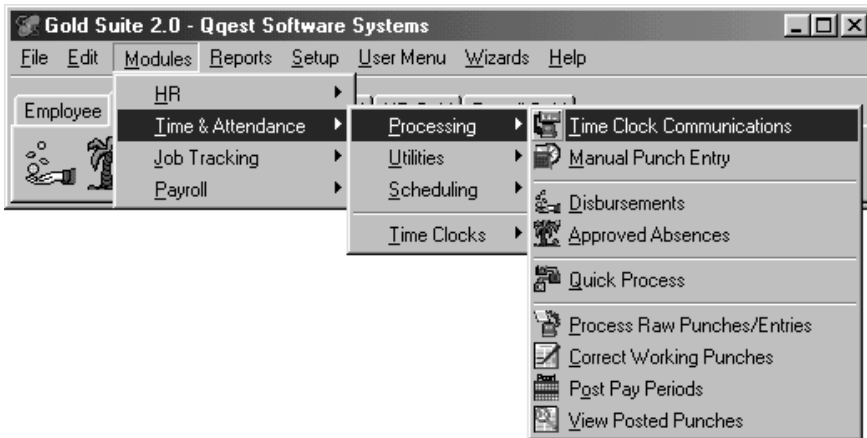


Figure TIME CLOCK-19

The Time Clock Communication window appears. It has tabs for Local Clocks, Remote Clocks, and TCP/IP Clocks. Local Clocks is open by default. Click on the Remote Clocks tab. See Figure TIME CLOCK-20.

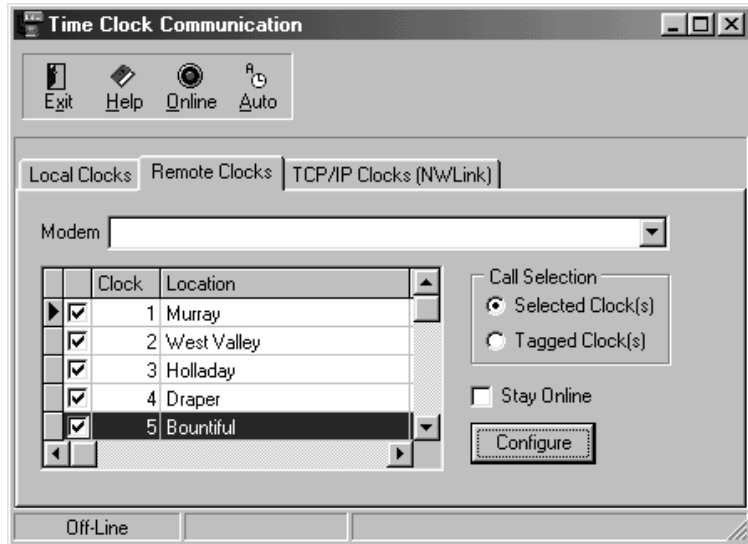


Figure TIME CLOCK-20

This tab is used by the program to download punches from the remote clocks.

Modem

This field displays a description of the modem attached to your computer. If you have more than one modem, click on the drop-down button and select a modem from the list.

Clock/Location

This table lists all the remote clocks set up on your system. Selected clocks are highlighted. Tagged clocks have an enabled checkbox next to their Clock ID.

Call Selection

You may choose to connect and download from remote clocks by two methods.

Selected Clocks

Click on this option button if you want to download only from selected clocks. If you download from a dynamic list of remote clocks, you can select the appropriate ones each time you download punches. To select a clock, click anywhere in the clock's row in the clocks table. To select more than one, hold down the <CTRL> (Control) key as you click on the table rows.

Tagged Clocks

If you want to download from tagged clocks, click on this option button. If your download list of remote clocks is the same each time, you can "tag" the appropriate ones to form a special group that can be downloaded all at once. To tag a clock, click anywhere in the clock's row in the clock table to highlight it. Then click on the tag button. The checkbox next to the Clock ID is enabled. Repeat the tagging process for each remote clock you want to include in the group. From one session to the next, the system remembers which clocks are tagged.



Note: Auto Poll, Auto Process and Quick Process only call tagged clocks.

Stay Online

If you wish the system to remain connected to a remote clock, enable this checkbox.

Calling Remote Clocks

To call one or more selected or tagged remote clocks, click on the [Online] button. Gold Suite automatically calls each designated clock and downloads all the stored punches in Clock ID order. When it has finished downloading the modem will disconnect, unless you have enabled the Stay Online checkbox.

Network Clocks

The purchase of a Network License includes the Network Time Clocks. The Network Time Clocks are computer-based time clock emulators. Qquest offers them as an alternative to the physical clocks. These optional programs look like the actual time clocks, but they are graphical representations that are displayed on your computer screen. The Network Clocks support 100E and 200 clocks.

Clocking in on a network clock is similar to clocking in at a physical clock. You may enter digits with either set of number keys on the computer's keyboard or by clicking on the keypad image with the computer's pointing device.

To use the Network Time Clock, you must install the Network Time Clock Server on the server machine and the Network Time Clock on the client machines. When installation is complete, on the server machine click on Start | Programs | Gold Suite 2 | Network Time Clock | Network Time Clock Server. The Network Time Clock Server icon appears in your system tray. Double-click on the icon and the Network Time Server window appears. See Figure TIME CLOCK-21.

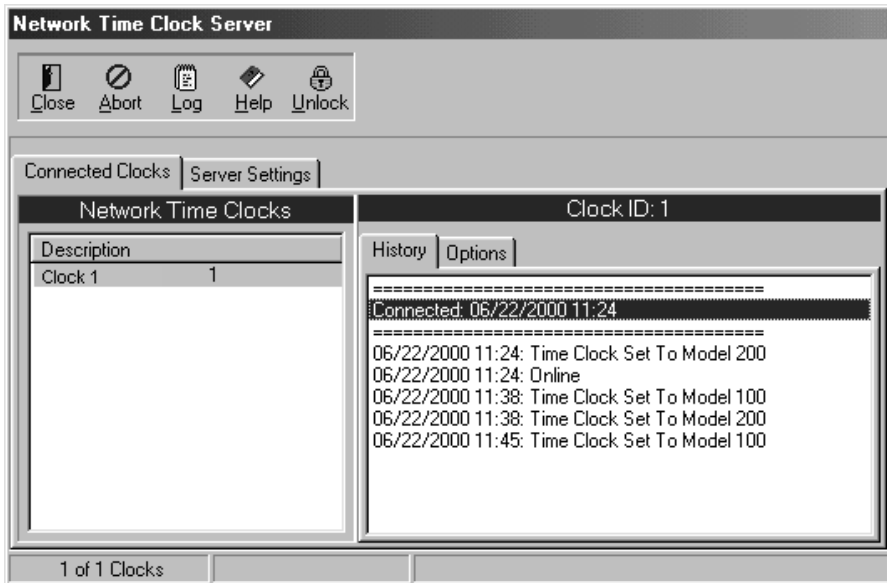


Figure TIME CLOCK-21

Network Time Clock Server

The window has two tabs, Connected Clocks and Server Settings. The Connected Clocks tab has two subtabs, History and Options. Connected clocks shows the clock IDs of all connected network time clocks, as well as a history of the activity of the highlighted clock.

Initially, the Description and History fields will be blank. To begin using the network clocks, you must first unlock them with the user password you were given when you purchased your network license.

Unlock

To unlock the network clocks, click on the [Unlock] button. When you do so, the Unlock dialog appears. See Figure TIME CLOCK-22.

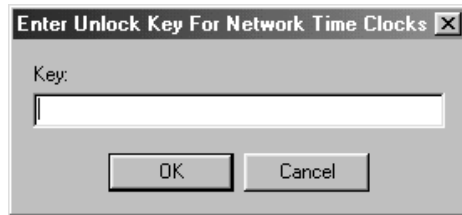


Figure TIME CLOCK-22

Type in your password, then click on [OK].



Note: Remember, you must purchase a user license for every machine on which you want to access the network clocks.

The Network Time Clock Server window also includes the following buttons.

Close

Click on the [Close] button to close the Network Time Clock Server window. The Network Time Server icon remains in your system tray.

Abort

Click on the [Abort] button to shut down the network time clock server. The Network Time Clock Server icon disappears from your system tray.

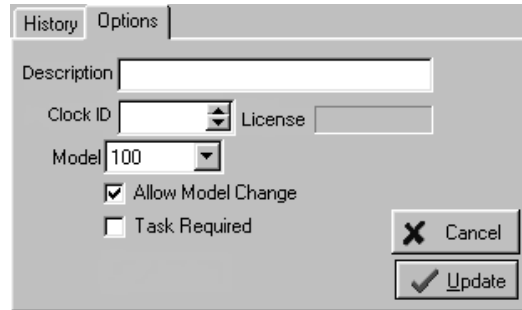
Log

Click on the [Log] button to view the Error Log.

Help

Click on the [Help] button to access the context-sensitive Help file associated with this program.

To set options for the network clocks, click on the Options subtab. See Figure TIME CLOCK-23.



The screenshot shows a software window with two tabs: 'History' and 'Options'. The 'Options' tab is active. It contains the following fields and controls:

- Description:** A text input field.
- Clock ID:** A dropdown menu with up and down arrows.
- License:** A text input field.
- Model:** A dropdown menu currently showing '100'.
- Allow Model Change:** A checked checkbox.
- Task Required:** An unchecked checkbox.
- Buttons:** 'Cancel' (with an 'X' icon) and 'Update' (with a checkmark icon) are located at the bottom right.

Figure TIME CLOCK-23

Options

Description

The description is a simple identifier for each network clock that is logged on.

Clock ID

Use the Up and Down arrows to select a clock ID.

License

The network time server assigns a license number to each network clock that logs on. These license numbers are renewed with each log on. The server will only assign as many licenses as were purchased with the network license.

Model

Use the drop-down arrow to select a model for the selected clock. The choices are 100 or 200. The model 100 network clock includes the features of a model 100E physical clock.

Allow Model Change

Select this checkbox if you want the user to be able to change the model on the selected clock.

Task Required

Check this checkbox if a task is required when entering a swipe at this network time clock.

When you are finished setting options, click on the [Update] button.

Server Settings

Click on the Server Settings tab to set options for the network time clock server. See Figure TIME CLOCK-24.

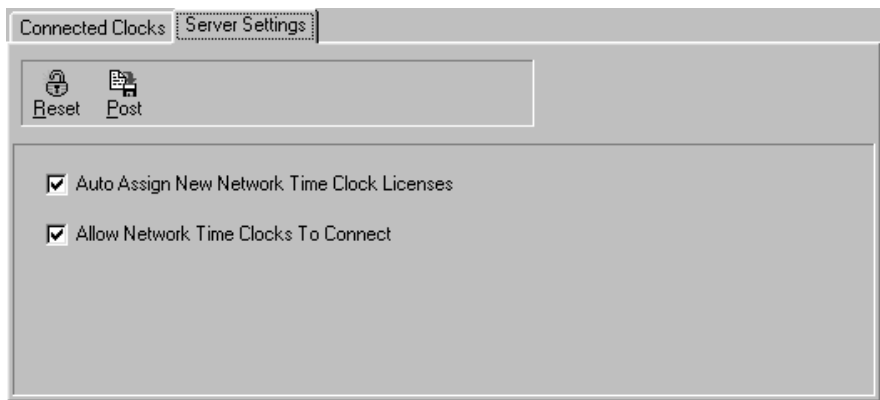


Figure TIME CLOCK-24

Auto Assign New Network Time Clock Licenses

Check this box if you want the server to automatically assign licenses when users are attempting to use the network clocks. Deselect the box if you don't wish licenses to be auto-assigned.

Allow Network Time Clocks to Connect

Check this box if you want to allow network time clocks to connect to the server. Deselect the box if you don't want to allow network clocks to connect.

Reset

Click on the [Reset] button to reset network clock licenses. Clocks that are in use will be assigned a new license number.

Post

Click on the [Post] button to post raw punches from the network clocks to the Gold Suite database. Raw punches are automatically posted periodically, but you can use this button to ensure that all punches are posted before processing.

Swiping at the Network Clocks

Once the Network Time Clock Server is activated, on a client machine click on Start | Programs | Gold Suite 2 | Network Time Clock | Network Time Clock. The Network Time Clock appears on your computer screen. See Figure TIME CLOCK-25.



Note: If you open the Network Time Clock without enabling the server, most of its fields will be disabled and the “Wait/Error” button will be activated.

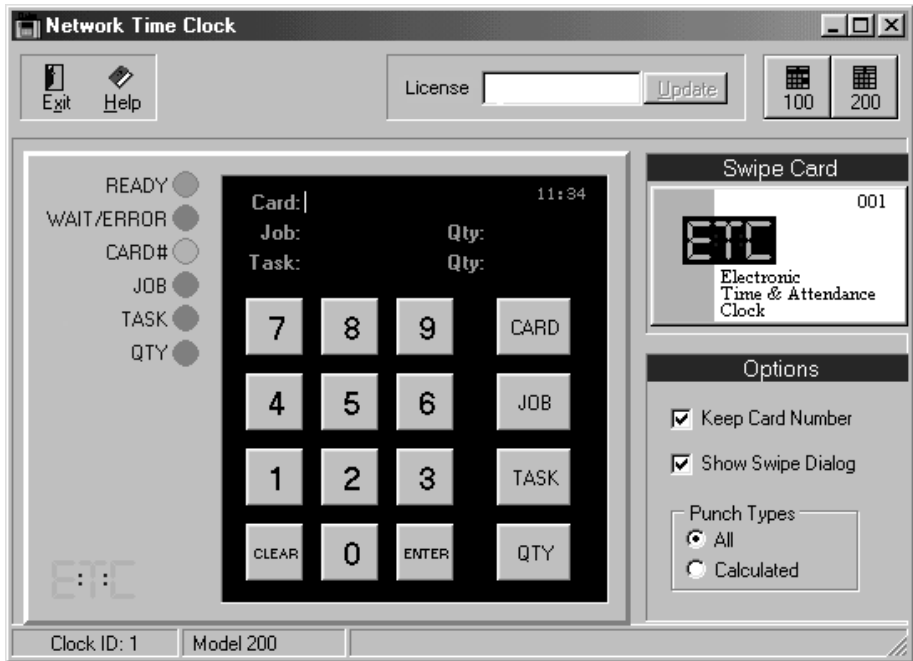


Figure TIME CLOCK-25

Before clocking in on a Network Time Clock, you must designate whether the clock is a Model 100 or a Model 200. To do so, click on the appropriate icon in the upper right corner of the screen. The clock face changes to show the appropriate fields. A Model 200 Network Clock is shown in Figure TIME CLOCK-26.

Since you cannot physically slide the punch card through the card reader, the Network Clocks use another method for entering the punch or entry. To the right of the clock in all versions is a representation of the swipe card. See Figure TIME CLOCK-26.

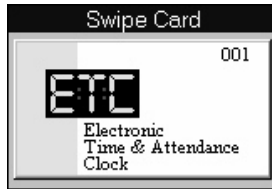


Figure TIME CLOCK-26

Use the computer's pointing device to click on the card and register the punch. Before using this card, you must designate a card number for it. Enter the card number in the field to the left of "Card" where the blinking cursor is displayed. See Figure TIME CLOCK-25.

Once you have entered the card number, you may enter Department and Tips information (for the 100 clock) or Job, Task, and Quantity information (for the 200 clock) either by typing numbers on your computer keyboard or by clicking on the clock numbers on your computer screen. After each entry, be sure to click on the [ENTER] button on the clock face.

Network Link

The Network Link, or NW Link, program has been replaced by the Auto Link program. Please see the section following this one for instructions on how to use Auto Link.

Network Link allows you to connect the Qqest time clock to a computer without Gold Suite installed and download punches over a network to a computer with Gold Suite. You link the Gold Suite computer to the Time Clock computer by setting up a network link.

The link can connect two computers in the same workgroup or you can provide the TCP/IP (Transmission Control Protocol/Internet Protocol) address of the Gold Suite computer to connect two computers that are not in the same workgroup.

Installation

To use Network Link, several steps must be completed on each of the computers involved. Winsock 2 must reside on both the Gold Suite computer and the Time Clock computer.



Note: Winsock 2 is included with Windows 98. If you are not using Windows 98, you may download it from Microsoft's website.

Procedure: Installing Network Link Time Clock

1. Attach the time clock to the computer.
2. Install NWLink onto the time clock computer.
3. Restart the time clock computer.
4. Double-click on the Network Link icon on the right end of the Taskbar near the current time display. The Network Link dialog opens. See Figure TIME CLOCK-27.



Figure TIME CLOCK-27

5. Use the Up and Down arrows to select the clock ID of the clock that you want to link.
6. Type in the password for the selected clock.
7. Enable the Autoload at Startup checkbox if you want Network Link to load automatically each time you start up the Time Clock computer.
8. Click on Close to run Network Link in the background. If you click on Abort, Network Link will shut down.

Using Network Link

When you want to download punches from the clock, open Gold Suite on the computer where you installed it.

Procedure: Downloading Punches with Network Link

1. Click on Modules | Time & Attendance | Processing | Time Clock Communication.
 2. Click on the TCP/IP Clocks (NWLink) tab.
 3. Select Selected Clocks or Tagged Clocks.
 4. Click on [Online].
 5. Gold Suite accesses the clock and downloads punches.
 6. Click on [Online] to disconnect.
 7. Exit.
-

Auto Link

Auto Link allows you to use a Qquest time clock on a computer that doesn't have Gold Suite installed. You can then download punches to the Gold Suite database. A computer with Gold Suite installed can access and process the downloaded punches.

Installation

Auto Link is very easy to install and use. The first step is to attach a Qquest time clock to the computer on which you want to run Auto Link and make sure the computer is communicating properly with the clock. See the *Gold Suite Quick Start Guide* or the *Introduction* Tab Section of this manual for more information on how to attach the time clock.

Next, you must give the computer on which you want to run Auto Link access to the Gold Suite database. Finally, you will install Auto Link on the time clock computer. To do so, follow the installation procedure below.

Procedure: Installing Auto Link

1. Insert the Qquest Gold Suite CD-ROM into the CD-ROM drive.
2. If Auto Run is enabled on your computer, the Setup program begins automatically.



Note: If your computer does not automatically detect the CD-ROM, double-click on My Computer and then on the icon for your CD-ROM. Then double-click on the [Setup.exe] icon.

3. A window opens with selection buttons for Programs, Gold Suite Utilities, and Product Information. Click on Programs.
4. On the next dialog, click on Auto Link.
5. The *InstallShield Self-extracting Exe* dialog asks if you wish to continue with the install. Click on [Yes].
6. InstallShield extracts the files for the application and sets up a wizard to guide you through the rest of the installation.
7. After the Welcome and Software License Agreement windows, the program suggests that you allow it to create and place the files in

- the default directory, C:\Program Files\Qquest\Gold, and the database in its default directory, C:\Program Files\Qquest\Gold\Tables. Be sure to specify the directory where the Gold Suite database is located. When you have made these two selections, click on [Next].
8. The program lists the choices you've made. If the information is correct, click on [Next]. If anything is incorrect, click on [Back] and make the necessary changes.
 9. A progress bar appears to let you know how the installation is progressing. When it is completed, click on [Finish].

Using Auto Link

To access Auto Link, click on Start | Programs | Gold Suite | Auto Link. The Auto Link icon appears in the system tray on the bottom of your screen. To access Auto Link, double-click on the icon. The Auto Link window appears. See Figure TIME CLOCK-28.

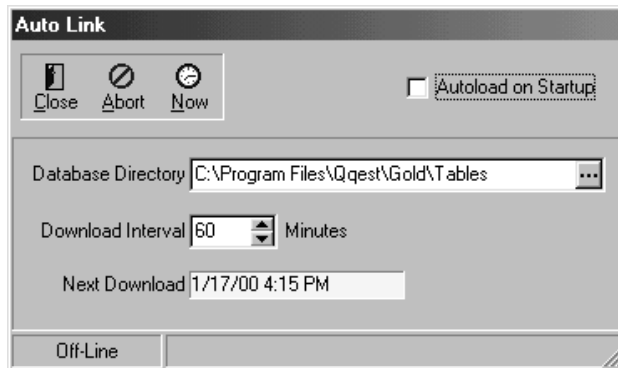


Figure TIME CLOCK-28

From this window you can set parameters for how you want Auto Link to download punches from the clock.

Autoload on Setup

Check this checkbox if you want Auto Link to autoload every time you restart your computer. If you leave this checkbox blank, you will have to

manually load the Auto Link program to download data from your time clock.

Database Directory

This field shows the location of the directory where Auto Link will store the downloaded punches. By default, the field displays the directory specified as the database directory during installation. If the location is not correct, click on the [Browse] button and navigate to the correct directory.



Note: The Gold Suite database must reside in this directory.

Download Interval

Use this field to set how frequently you want Auto Link to download punches from the clock. The default is 60 minutes; the minimum value is 5 minutes; and the maximum value is 1440 minutes (one day). Within these parameters, you may schedule download events as frequently as you wish. However, Qqest recommends that you allow at least 15 minutes between download events to ensure that one download is complete before the next one begins. Otherwise, the events may not begin on time.

Next Download

This read-only field shows the date and time when the next download event is scheduled.

Now



Click on the [Now] button to download punches from the clock immediately. A window appears asking if you want to reset the download timer when downloading. Click on [Yes] to reset the Next Download field.

Click on [No] to leave the Next Download value as is. Click on [Cancel] to cancel the download event.

Whether you click on [Yes] or [No], the download event occurs. A progress bar at the bottom of the Auto Link window shows you the progress of the download.

When the download event is complete, the progress bar at the bottom of the Auto Link window once again reads “Off-Line.” The downloaded punches are now available for processing on a computer that runs Gold Suite.

Close

Click on the [Close] button to close the Auto Link window while leaving the program running in the system tray.

Abort

Click on [Abort] to terminate the program. The [Abort] option can be found as a button on the Auto Link window or as a menu item when you right-click on the Auto Link icon in the system tray.

Pause

When you right-click on the Auto Link icon, you will also see a Pause option. Clicking on Pause interrupts the program; no downloads will be performed as long as Pause is checked. To restart the program, deselect the Pause option.

VeriPrint Configuration

The VeriPrint Configuration program is used to configure the connection with the VeriPrint clock and to set up templates. You need to install the VeriPrint CD you received from Biometric Identification Inc. before using the VeriPrint Configuration program. If you installed the VeriPrint program to a location other than the default, you must edit the Gold Suite configuration file, Gold.ini, found in the Gold folder, to show the explicit filename (drive, path, filename). If you accepted the default installation location, you may skip the next paragraph and example.

The Gold Suite program is installed by default to C:\Program Files\Qquest\Gold 2\. Double-click on the Gold.ini file to open it for editing. Scroll down to the section heading [VERIPRINT] and look for the line beginning with DLL=. The default explicit filename will be listed as shown in the example below. On the line beginning with DLL=, edit the drive or path as necessary to reflect the location of the VeriPrint DLL. The filename "biidll.dll" should remain the same. Save and exit the Gold.ini file.

```
[VERIPRINT]
```

```
Auto=0
```

```
CommPort=1
```

```
BaudRate=0
```

```
Remote=0
```

```
Phone=-1
```

```
PhoneCount=0
```

```
Init1=
```

```
Init2=
```

```
DLL=C:\Program Files\Biometric Identification Inc.\V2100\biidll.dll
```

To access the VeriPrint Configuration program, open My Computer or Window's Explorer and click on Program Files | Qquest | Gold 2. Double-click on VeriCfg.exe to run the program. The VeriPrint Configuration screen opens with two tabs, Connection and Templates. On the connection tab, you can choose an appropriate com port and baud rate for communications with the VeriPrint clock. The Templates tab is used for assigning pin numbers to employee fingerprint files. You must be connected to the VeriPrint clock to access the Templates tab.

Using a Modem with the Veriprint V2100

Before you can access the Veriprint V2100 remotely over phone lines, you must establish a direct connection between the PC and the V2100 in order to download the modem initialization string from VeriPrint configuration to the V2100. You can set the modem initialization string in Gold Suite's Time Clock Communications or in the VeriPrint configuration Utility. To set the modem initialization string in Gold Suite, see Time Clock Communications help for Veriprint, "Using A Modem With V2100."

Procedure: Setting the Modem Initialization String in the VeriPrint Configuration Utility

1. Establish a direct cable connection between the PC and the V2100 using the cable supplied with the V2100 or a standard 9-pin serial cable. Refer to the *V2100 Installation Manual* for more details.
 2. Open the VeriPrint Configuration Utility (VeriCfg.exe) from the Gold 2 folder on your local drive. The VeriPrint Configuration Utility opens with the Serial tab listing the com port selection and baud rate for serial port communications.
 3. Select the appropriate com port and baud rate for the serial port to which the V2100 clock is connected. Click on the [Online] toggle button. The connection status displays on the bottom left part of the window. The suggested baud rate given by Biometric is 56000. If you cannot connect at 56000, experiment with lower settings, such as 9600 baud.
 4. Once connected, the window display changes to the Settings tab. Right-click with your mouse in the text entry box labeled Modem Init String. A pop-up list with the two modems recommended by
-

- Biometric appears. Click on the appropriate modem (either U.S. Robotics Sportster 56k or Zoom Pocket Model 14.4). The modem string will be entered automatically into the text entry box. Click on [Online] to download the modem string to the V2100 clock.
5. Check the status bar located at the bottom left part of the window for download information. After the modem string has been successfully sent to the V2100 clock, you may click on the [Online] button to disconnect.
 6. Disconnect the serial cable from the PC and the V2100 clock. The V2100 clock can now be connected to the external modem, phone cabling, and power source at the remote site. You will still need to set the modem string your PC uses for communications within Gold Suite. Refer to the modem manufacturer if you do not know the modem initialization string.

RS-485 Communications

RS-485 Communications are used for connecting the V2100 Clock to the Network and for Daisy Chaining V2100 clocks. The EIA RS-485 standard defines an electrical interface for multi-point communication on bus transmission lines. It is also the best choice for transferring data over extended distances (200-4000 feet). The total run of the cable should not exceed 4000 feet. Shielded, grounded 4-wire similar to Belden 9842 with 120-ohm characteristic impedance cable is recommended. Category 5 shielded would be an appropriate choice. Drops (down leads) to equipment are not recommended, but if needed, should not exceed 10 feet using shielded twisted pair cable. Contact Biometric Identification, Inc. Technical Support for more detailed information.

RS-232 to RS-485 Adaptor

If you need to use the RS-485 communication standard for daisy-chaining or long cable runs, you will need to purchase or make a RS-232 to RS-485 adaptor. Adaptor specifications are available upon request. Contact Qquest Technical Support at (800) 697-7010. Adaptors are also available for purchase from Qquest.

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