

Synchronizer



User's Guide



System Requirements

Technical support for this application is available from your local dealer.

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Synchronizer
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What Is The Gatehouse® Synchronizer?

The Gatehouse® Synchronizer is an application that allows the distributed database to be continually updated from other workstations on the Gatehouse network. This is done through a variety of connections ranging from simple dial up connections to wide area network connections. Although the Synchronizer application has many different tabs in the configuration stage, the operation of the application is quite simple once it's initially configured. By the time you get through reading this manual, you should have a much better understanding on how to configure the synchronizer for your environment. Pictured below is the Database tab of the synchronizer screen that you will see after choosing the configure option from the menu.

The screenshot shows the 'Synchronizer 3.0' application window with the 'Database' tab selected. The window contains several input fields for configuration:

Synchronizer 3.0	
Wkstn	Station Detail
Monitor	Sync options
Job status	
Database	DUN
Schedule	Task Mgr
Data options	Link
Startup	
Database path d:\Gatehouse\ghdb.mdb	
Log path	
Import directory	
Network username NETWORK USRNAME	Network password NETWORK PASSWORD
Import directory username IMPORT DIR USERNAME	Import directory password IMPORT DIR PASSWORD
Database Username DB USERNAME	Database password DB PASSWORD
Application password 90210	Workstation ID 1
OK Apply	



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Chapter 1 - Installation

Hardware Requirements

Processors and Chipset

Intel® Pentium® III 800 MHz or better processor

Intel® Celeron™ 733 MHz processor with at least 32 KB L1 Cache, 128 KB Internal L2 Cache or better

Memory

128 MB (100 MHz SDRAM DIMMs)

Storage

20 Gig (5400 RPM) Ultra ATA-100 hard drives or better

3.5", 1.44 MB diskette drive

40x max or better variable speed CD-ROM

Audio

SoundBlaster™ or compatible Sound Card

Video and Monitors

17" (13.8" viewable .26 dpi)

Graphics card capable of displaying 16M Colors at 1024x768

Slots

4 PCI slots or more

Ports

1 Parallel port

2 High-speed serial ports

Network

1 56K HAYES COMPATIBLE MODEM IS REQUIRED FOR EACH WORKSTATION UTILIZING DIALUP CONNECTIVITY

1 10/100 ETHERNET CARD IS REQUIRED FOR EACH WORKSTATION UTILIZING ETHERNET CONNECTIVITY

(3Com® Etherlink® 10/100 PCI network interface card part# 3CP905B-TX-NM)

1 10/100 ETHERNET HUB/SWITCH IS REQUIRED WHEN CONNECTING MORE THAN ONE WORKSTATION PER SEGMENT

(3Com® OfficeConnect® Dual Speed Switch 8 part# 3C16734B-US) or

(3Com® OfficeConnect® Dual Speed Switch 4 part 3C16733A-US)



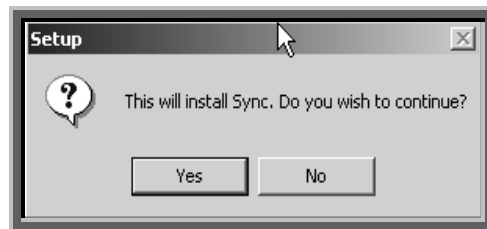
Operating System Requirements

Windows 95/NT/98/ME/2000/XP®

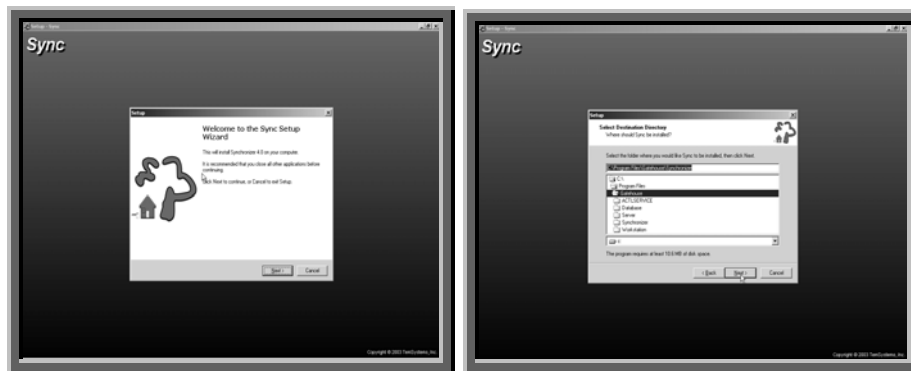
Software Installation

New Install

Insert the Gatehouse CD-ROM into the CD-ROM or DVD-ROM drive. In Explorer, choose the drive that Represents the drive letter that you inserted your media into. Double click on “Sync-Setup.exe”. This will display the following screen.

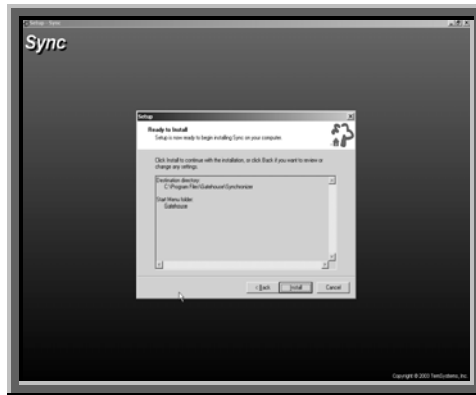


Please click YES; the setup program will display the following screen.

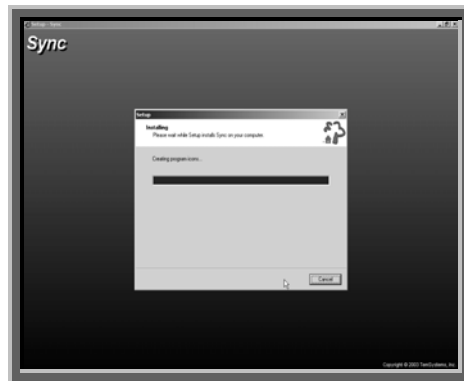


Once again, you have a point where you can cancel this if there is a problem; otherwise, press the “next” button. The following screen will be displayed. This display shows the location where the software will be installed.

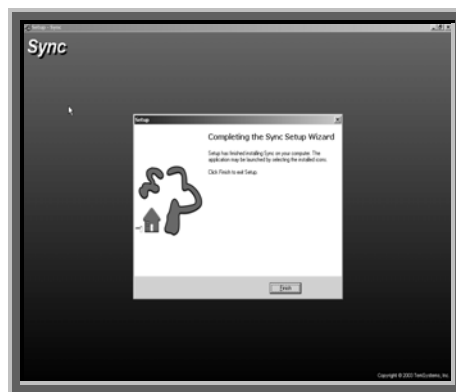
The final screen before the actual installation shows the information on where it's going to be installed and what program group it's going to create. If you want to change anything, you can press the "Back" button and make any changes.



Once you press "Next" on the above screen, the system will begin copying the files to install the Synchronizer.



The intermediate screen shows the progress of the file getting copied.



Once the installation is finished, you will see one final screen saying that the Setup Wizard completed. Press the finish button to return back to your desktop. Now that the program has been installed, you will notice that the synchronizer has placed a shortcut in your program files/startup folder. This will allow the synchronizer to automatically start-up each time windows is restarted or a user logs in. The installation also places some code in the registry, if for some reason you don't have write access to the registry, the program will report an error.

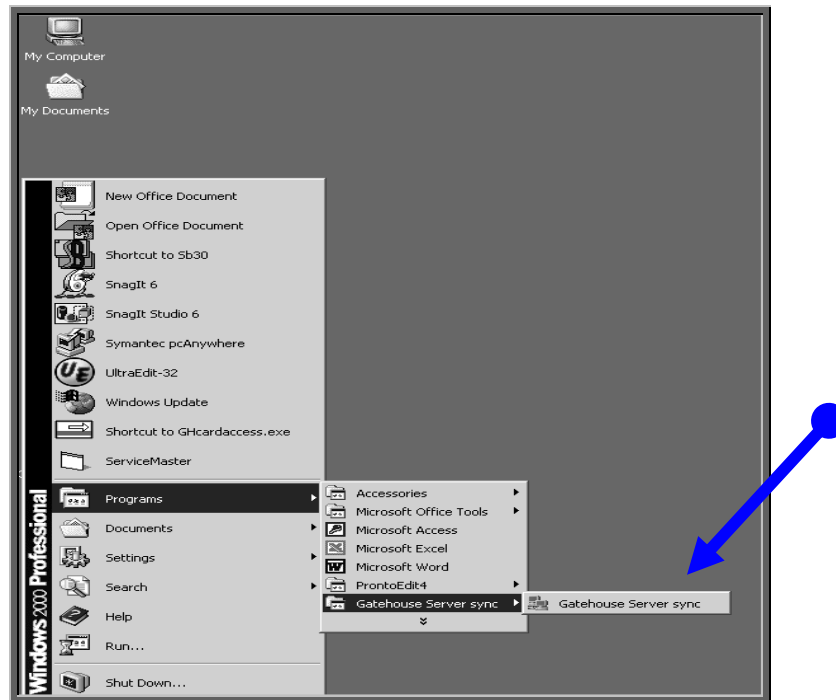


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Chapter 2 - Starting The Synchronizer

From the **START** menu, click on programs, and then select Gatehouse Server Sync.



Upon clicking on the “Gatehouse Server Sync” in the menu, the application will minimize itself to your system icon tray. The synchronizer looks like a network connection. The system icon tray is the tray on the lower right of your screen where the icons such as the time clock, the speaker icon, etc are displayed. If you slowly move your mouse over each icon in the system tray, windows will pop-up messages over the icon displaying the name of the application. To get started in your configuration of the application, you will need to right mouse click on the synchronizer icon (move over the synchronizer icon and click your right mouse button). You will see a choice of 3 options. Configure, Shutdown, About.

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Chapter 3 - Navigating Gate House® Synchronizer

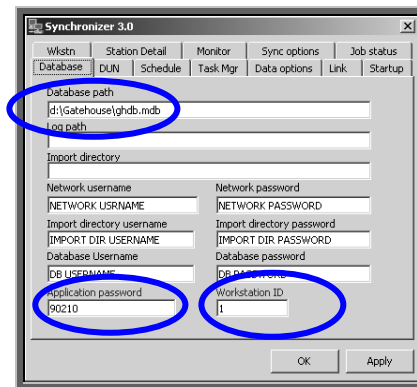
Synchronizer Screen

The Synchronizer is designed with a multiple tab interface. You can get to any option in the program simply by clicking the Tab key for the corresponding option you would like to select.

The synchronizer consists of 12 tabs ranging from the path of the database file, to configuring a password to prevent other users from tinkering with the application. We will go through all of the tabs and options from left to right.

The Database tab

This is the most important section in configuring the application. If the database path is not correct, the application will not open. The first time you run the synchronizer, you will be prompted to enter the path of the database file. The Workstation ID is also very important, this must be correct or data will not be imported or exported to any other machines on the Gatehouse Network. You can also change the password to prevent users from modifying the application.



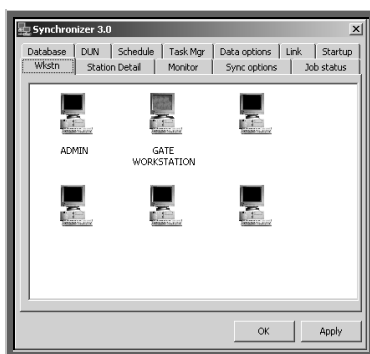
DUN Tab

This is only important if you are using Dial-up networking. This displays the available connections, the active connections, and the status of the active connection. If you are using DUN to connect your call, this display will be active showing the status of the connection.



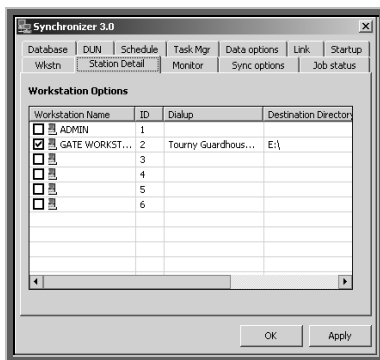
Wkstn Tab

This tab is a visual indicator showing which workstations are “online”. The online status indicates the workstation is ready to receive or send data with the Gatehouse Network.

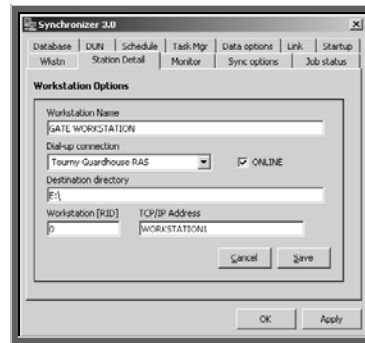


Station Detail

Other than the Database tab, this is the next most important screen. This screen represents all of the workstations on the network.



If you click on the Workstation name, you will be presented with the screen below. This allows you to enter each workstation name, select the dial-up network connection (if applicable), choose the online status, and enter the Workstation name or TCP/IP address of the workstation. (You should use the workstation name if you are using a DHCP server. Otherwise when the synchronizer tries to get the data from a machine where the IP address is not located, the synchronization will fail. When you have completed all the changes you want to make, press the Save button. You now see the Station Detail tab.



Monitor

The monitor tab is used for diagnostic purposes only. This is a great tool for support personnel to troubleshoot any problems with the application. This displays all aspects of the interface from the connection stage, displaying the records that were sent across the network to other Gatehouse Network Workstations.

The line directly above the monitor information shows the time and date stamp of when the synchronizer application was started.

NETWORK STATUS INDICATORS:

There are 5 indicators that are used at various times to display specific diagnostic information back to the support administrator. The following describes the indicators that are used.

FTS Indicator (the indicator on the far left)

GREEN - Receiving data from another Gatehouse synchronizer.

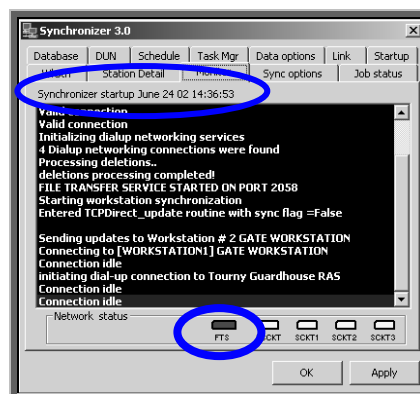
RED – Sending data to another Gatehouse synchronizer

YELLOW – The system encountered some type of failure; it's waiting for the next loop to restart.

BLUE – Stand by mode, waiting for the synchronization loop to begin or there aren't any records available for transfer.

Loop restart time is the time you specify in the schedule.

Displays the date/time when the synchronizer was started



Sync options



This screen allows the administrator to select which options are used for the Synchronizer. From the top left to the bottom right, here are descriptions for each of the options.

Enable Updates – These are required to be checked for the program to operate.

Enable Additions - These are required to be checked for the program to operate.

Enable Deletions - These are required to be checked for the program to operate.

Enable System Log

When this option is enabled, all actions that take place in the synchronizer will be recorded to a file. **WARNING:** Enabling this option records ALL activity: Warning: the file size can get rather large quickly. This should NOT be checked by default. Only enable this option if directed by a TEM Systems support engineer.

Enable Alerts

This option will alert the guard of any network troubles that may occur. Example, if the network connection is lost, the system will pop-up a message box telling the user of this. This is useful to get the guard's attention that there is a problem with the data transmission.

Enable DUN

If you are using Dial-Up Networking, this option should be checked. It tells the application to route all transfers through Dial-Up Networking, instead of using the Ethernet routines.

Enable Shutdown

This is an option that will enable the user at that workstation to shutdown the synchronizer application. If this is disabled, the "Shutdown" option of the application is not available to the user on the menu.

Enable Password



If the password checkbox is set on the Database tab, enabling this option will force the user into entering a password before allowing access to the configuration screens of the synchronizer.

Enable Monitor

If you do not want to have the Monitor tab made visible to a particular workstation user, then disable the monitor. Normally, this option would stay enabled. The monitor screen shows all of the activities that take place with the access control engine, however sometimes you might not want users to be able to see who is entering the community.

Disable Alt-Ctl-Del

If you want to prevent the user from rebooting this machine, you should select this option. As long as the synchronizer is running the user is prevented. NOTE: this only applies to Windows 95 and 98 machines. This does not prevent the user in Windows NT, 2000 or XP.

Hide Startbar

This option will hide the Windows Start bar.

Hide Desktop

This will hide all the icons on the desktop.

Hide Start Button

This will hide the Windows Start Button

Fix Database on Startup

This will run the database compact and repair option upon starting the application. This will NOT work if the database is shared on a file server. There is possibility of corrupting the database if you compact and repair a database when it is in use. Use caution when setting this option, it should not be enabled.

Run Applications on Startup.

This is useful to run another application after the synchronizer is started. An example of this would be to run the Access Control Module or Voice Server once the synchronizer has fully loaded.

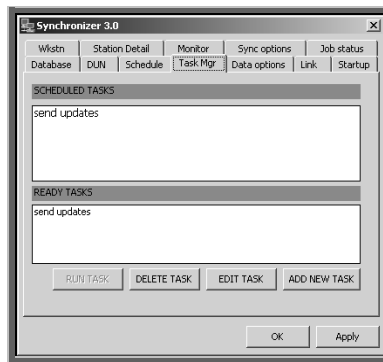
Schedule

This allows the user to create a schedule frequency for communicating back to the other workstations. You can specify the name of the task (to be used with Task Mgr), the number of minutes to wait, and if you want to do the synchronization daily, monthly, or hourly.



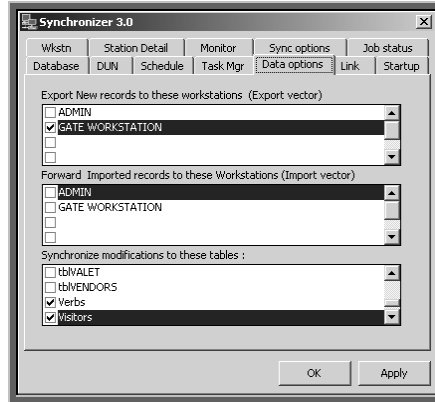
Task Mgr

This screen allows the user configure the tasks that will take place when the system synchronizes. The user can add, delete, or edit a task. On this screen, you would choose “ADD NEW TASK”. You will need to enter the task name; this is a description of the task you’re going to select. The next option allows you to select from a drop-down menu all of the available tasks that the synchronizer is enabled to perform. If you are only using 2 machines in your Gatehouse network, you should choose “Synchronize Workstations”. NOTE: you only need to assign a task on ONE of the machines, if you choose the same task on another machine, you will get a TCP/IP socket error because both machines are trying to import and export data at the exact same time. The final option to choose is the time interval from the drop-down box; this should be the only choice in the field. This assumes that you already went to the schedule tab and assigned this. The task manager has several other useful functions that we will discuss in a later chapter.



Data options

This allows the user to select which workstations should be synchronized. Which stations should have data forwarded to them and what tables should be monitored for updates when synchronizing.



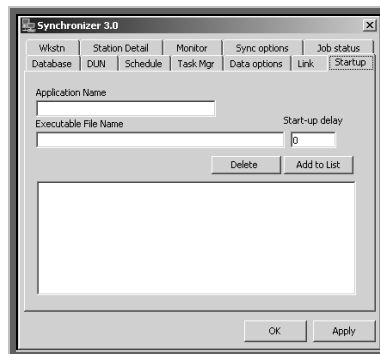
Link

This tab is only important if you are planning on using the real time information part of the program. If you do not want to use the real time stats, you don't need to worry about anything on this screen. If you do want to use the real-time link reporting, you will need to make sure the "remote address field" correctly displays either the IP address or DNS name of the machine where you want the data to be displayed



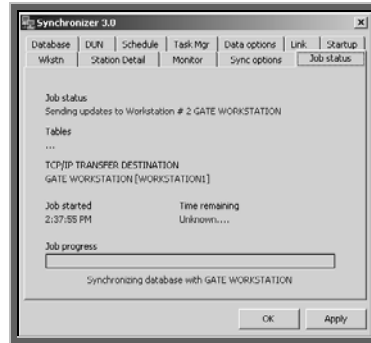
Startup

This screen allows the user to choose the application that they want to start-up, and the delay, if any to wait before the application starts up.



Job Status

This screen shows the real-time status of the file, if any, that is being transferred over at that moment. This displays the location the import or export is coming from, the table that is being transferred, and the progress of the transfer.





Chapter 4 -Usage

Configuring the application

The following is a basic walkthrough of configuring the synchronizer with a Administrative Workstation and 1 Guard workstation. The first workstation we will configure is the Administrative Workstation.

Note: the Voice Server module normally occupies the workstation ID=1 position, so we will start with workstation ID=2.

Standard setup Vs Forwarding setup

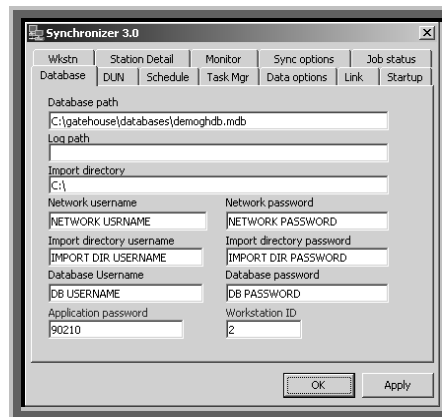
The Standard Setup

Admin (workstation 2)

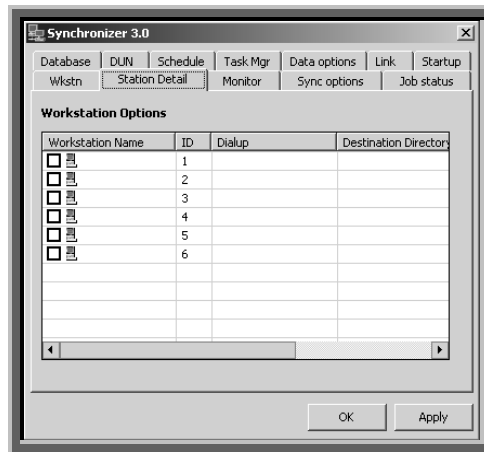
Install the synchronizer software.

Open up the ssync.ini file in a text editor and make sure the Path= statement points to the directory where your database is located. Example: *path=C:\Program Files\Gatehouse Server\Database\sample.mdb*

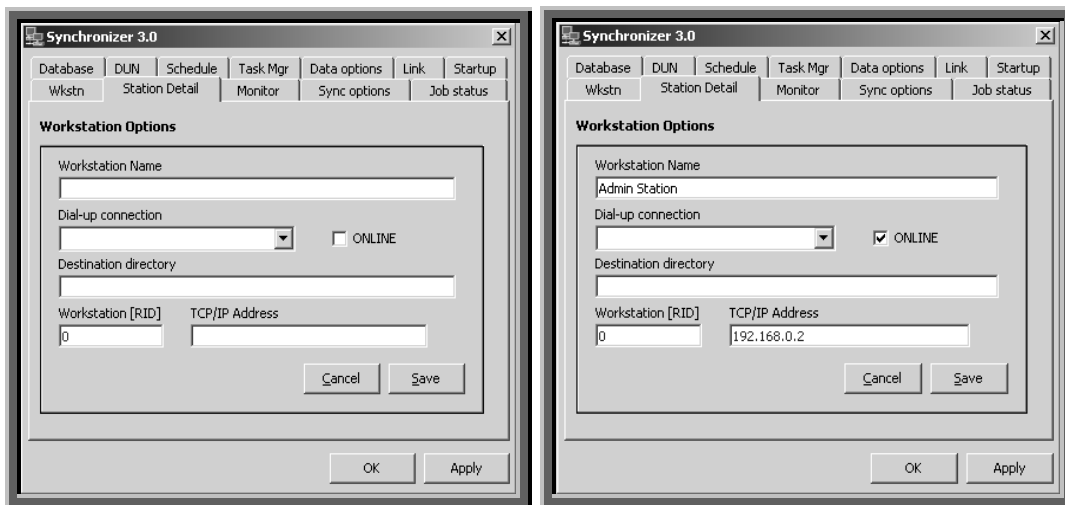
Once this is done, save the file and execute the synchronizer application. It's located in the Gatehouse server synch folder. Once you load the synchronizer and click configure, click on the database tab. The database tab will show you the path the database resides in along with the workstation ID. Since this machine is Workstation 2, we will click on Workstation ID and enter "2" (if it's not already 2). Once you are done, click the Apply button. If you have any questions with locating these fields, please refer back to Chapter 3, Navigating The Synchronizer.



The next thing you need to do is setup your workstations. Click on the Stations Detail tab. You will be presented with workstation options. Since we are going to be adding workstation 2 (Admin side), click once inside the workstation name on the line where the ID 2 is located.



Upon clicking on it, you will see the following screen.

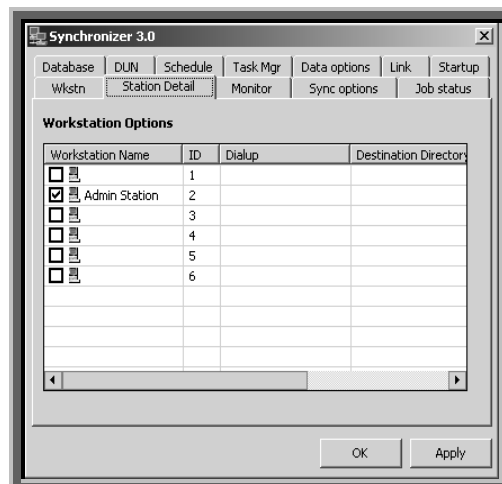


In 'Workstation Name', enter "Admin Station"

Place a checkbox in the "Online" field

Enter the IP address of this machine

Press "SAVE" (once you press the save button, the screen will return back to Workstation options screen.

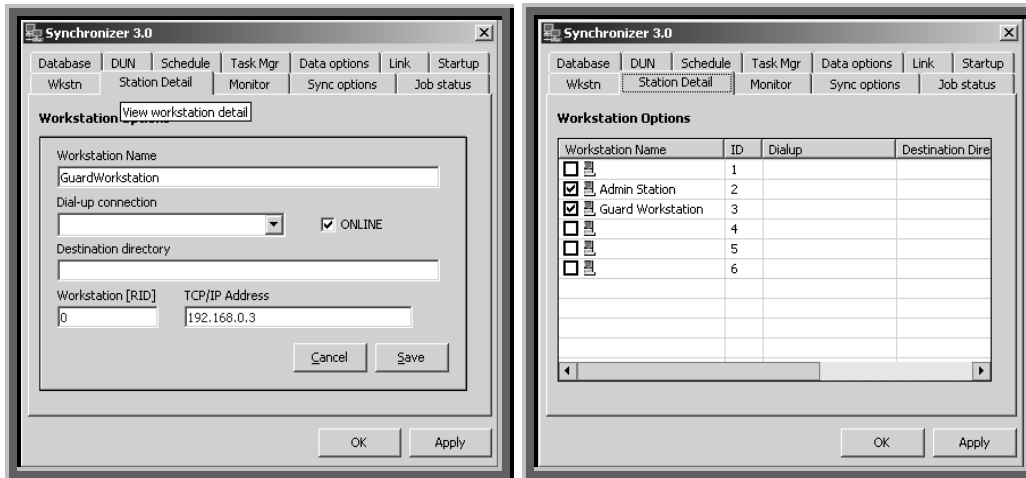




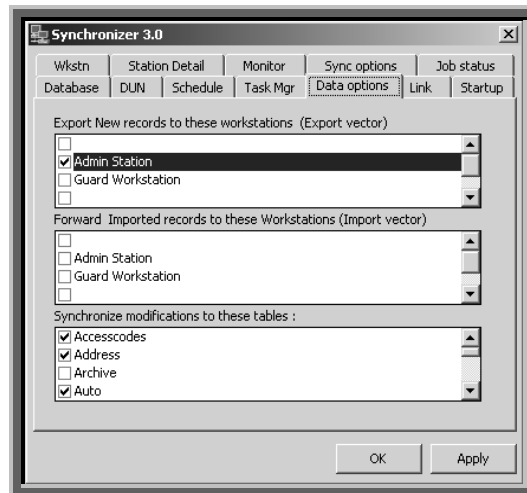
Now we will setup the other machine (guard workstation ID 3)

Now click on ID position 3, we will enter the information the same way as previously done with the ID 2.

Note: Make sure you enter the IP address of the OTHER machine for ID 3.



The next step in configuration is the data options tab.



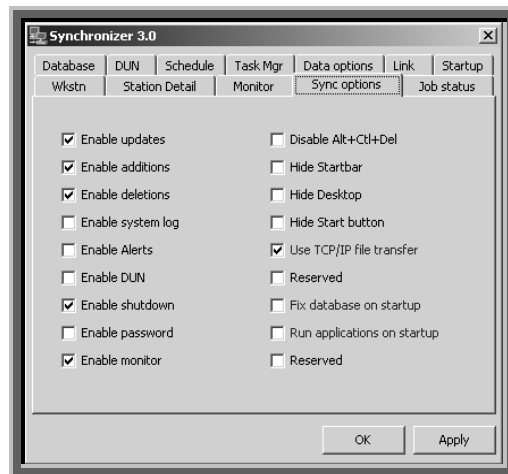
You will notice 3 separate sections inside the “Data Options”.

In the section “Synchronize modifications to these tables”, verify that the following tables are checked.

Primary functions of tables

AccessCodes	-	The names of the Access Control zones.
Address	-	All the Unit (property related fields)
Auto	-	Automobile information for Unit
Cards	-	Access cards for Unit
Deletions	-	Records that the user has deleted
Directory	-	Phone directory for important phone numbers
Emaillist	-	Email Addresses for Unit
Events	-	Activities that have taken place (access granted etc)
Map	-	Stores the pictures (maps) of the directions
Operators	-	Table of all users (guards/admin/etc)
Partylist	-	Party list for Units
Phonelist	-	Phonelist for additional numbers & Voice Server Called ID
Residents	-	Occupants table associated with the Address table for Unit
Route	-	Location where directions for each guardhouse are stored.
Visitors	-	Visitor database

Uncheck any others that are checked, and proceed to click on the Synchronizer options tab.

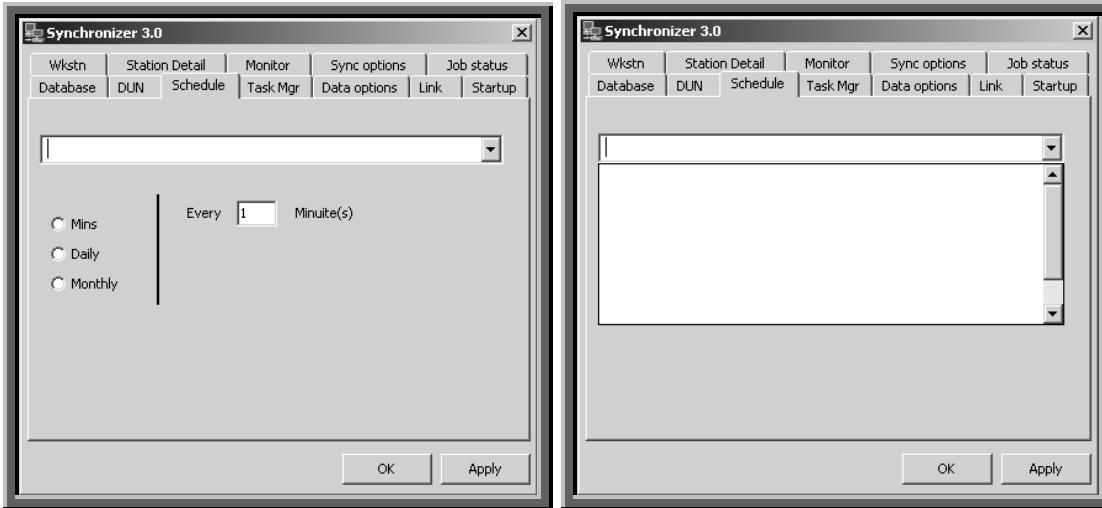


Make sure the Use TCP/IP file transfer is checked, if this is not checked the program will not function correctly.

The Task Manager is the final step in “getting it to work”, but should not be overlooked in the power that resides at your fingertips with these commands. A more detailed look into the Task Manager is covered in Chapter 8.

We need to set up the Task Manager, but before we do this, we need to set up an interval at which we will run the task manager. So we will click on the Schedule Tab.

Upon clicking on the Schedule tab, you will see a blank screen. We need to create an entry called “Every 1 minute”. We will do this by clicking on the down arrow with the blank entry.

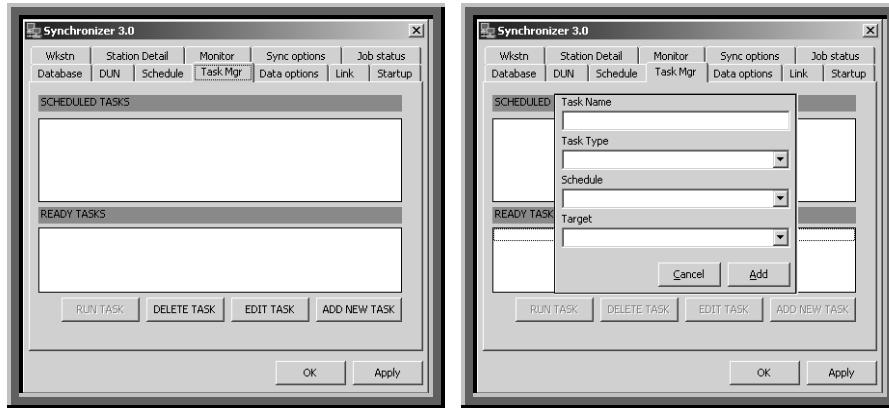


You see a blank line after you create the “every 1-minute”; now go back to that pull down menu, in the list you will see the entry you just typed in. Select it with the mouse. Make sure the “Every Minute field” is filled in with a “1” for every minute. Verify that the “mins” option button is also selected. When you are done, your screen should look like the picture below.



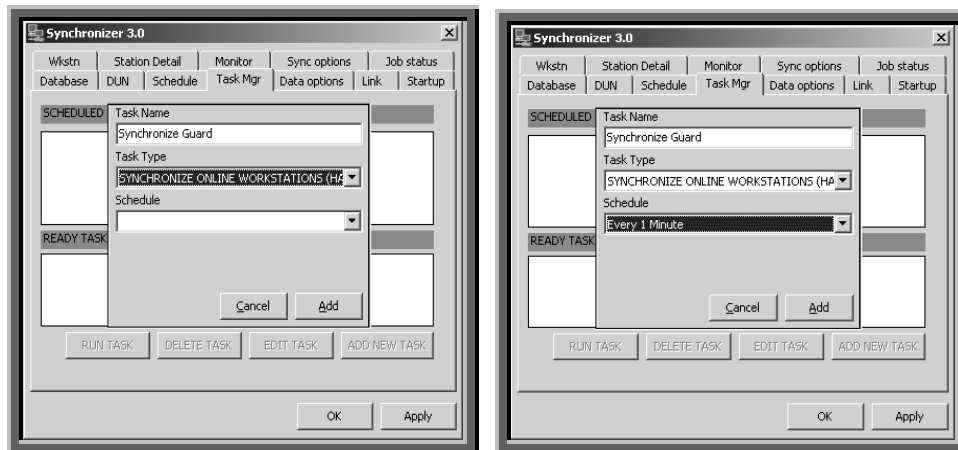
Now, to make sure the settings for the schedule was properly created. Right click on the synchronizer icon and select “shutdown”, the synchronizer will close, now restart the synchronizer application and choose “schedule” tab. Make sure the settings are there. Once you’re sure that the settings are there, proceed to Task Manager tab.

Upon clicking on the Task Mgr tab, you will see a screen like the picture below.



We are going to add a task to synchronize every 1-minute. The first thing we need to do is click the “Add New Task” button.

In the Task Name field, enter “Synchronize Guard”. Click the down-arrow of the task type and choose Synchronize Online Workstations (HARD). Click on the Schedule and choose the “Every 1 minute” that you added in the step prior to Task Manager.



Click the Add Button, and you should see a screen resembling the screen below.





This indicates that every 1 minute(s), the system will attempt to look for the guard machine and see if any of the records have changed.

If everything above was followed correctly, the configuration for the Admin Station should be complete.

Now, we need to install the same thing on another machine (the guard machine), the only difference is that you do not need to do the schedule or task mgr settings on the other machine since only one machine needs to trigger the synchronization. If you attempt to do this on both machines, you will get all types of File transfer service in use messages.

Guard (workstation 3)

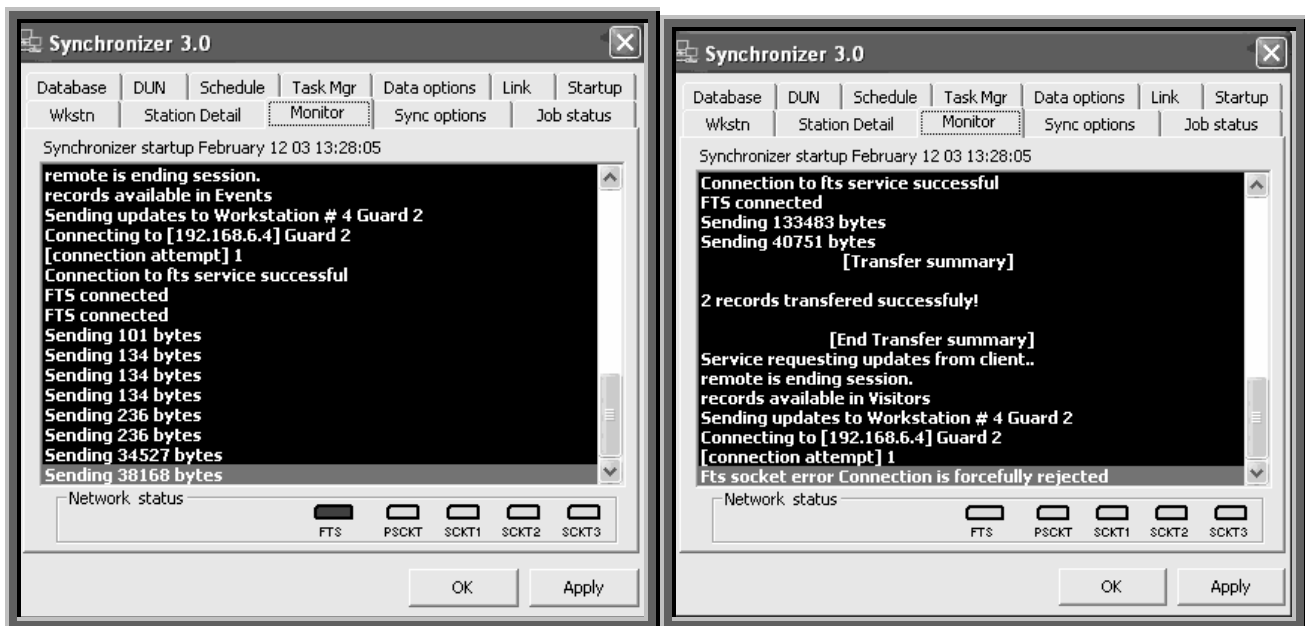
Install the synchronizer software.

Open up the `ssync.ini` file in a text editor and make sure the `Path=` statement points to the directory where your database is located. Example: `path=C:\Program Files\Gatehouse Server\Database\sample.mdb`

Once this is done, save the file and execute the synchronizer application. It's located in the Gatehouse server synch folder.

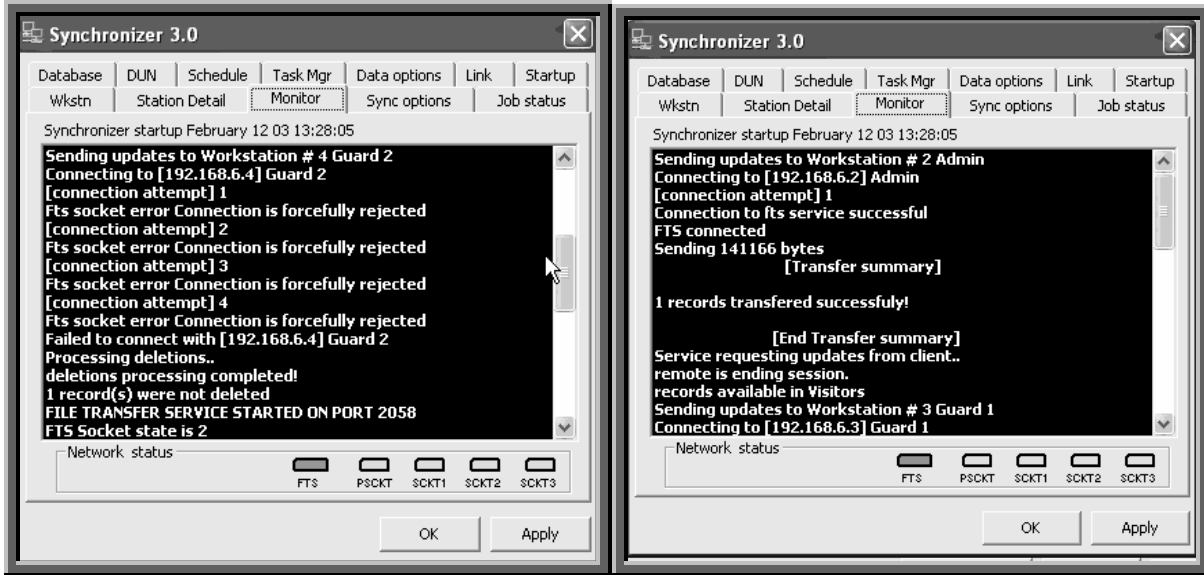
Chapter 5 – Synchronizer In Action

The following display shows a connection from the synchronizer. Starting from the top of the display, the first thing you see “Records available in Events”. This indicates that the synchronizer detects new records that are available from another synchronizer in the network. The “Sending updates to Workstation #4 Guard 2 / Connecting to [192.168.6.4] Guard 2” shows that the synchronizer is looking to send the update to the workstation called Guard 2. The number inside the brackets is the network TCP/IP address. The computer machine name can also be used instead of the IP address as long as you have a “closed network”. “[Connection attempt] 1” – This shows that the synchronizer is making connection attempt 1. If there are any failures connecting, the synchronizer will retry to connect to that machine 4 times before moving to the next machine in your network. Once you see the “Connection to FTS service successful” message, this indicates that the synchronizer has properly found the connection. The final message displayed before the data transfer begins is the “FTS connected” message.



You will then see the “Sending bytes”, this indicates your synchronizer is sending files to another synchronizer inside the Gatehouse network. You will also notice that the FTS (Network status) indicator is the color red. This will continue until the synchronizer determines that there are no more available records to be transferred. At this point you will see [Transfer summary] X records transferred successfully. (X=the total number of records). [End Transfer summary] will indicate that the file transfer process has completed. The “Service requesting updates from client...” indicates that the other(s) synchronizer in the network have records for your computer. This process will continue until all the records are sent. “Remote is ending session” indicates that the connection (communication) to the computer is shutting down.

The next step shows a communications failure. The synchronizer, under normal conditions is able to handle errors and once the communications is restored, be able to continue on without any operator intervention. We see the “Connecting to Guard 2” message, but instead of the “Connection to FTS service successful” message, we see “FTS socket error Connection is forcefully rejected”. This can be for a handful of reasons such as the other computer was rebooted, the connection to the network was disconnected, etc.



Notice that the synchronizer retried the connection 4 times before stopping. Once it stops, it continues through the loop and looks to see if there are any other machines that need updates, once that process is completed, it will attempt to connect to the machine again. We have been looking at the monitor tab, but you can also review the file transfer process from the “Job Status” tab. Pictured below is the same information that was displayed above.



If you need to see the status of a connection, but you don't want to be overwhelmed by the extraneous technical jargon, you should use the “Job status” display.

“Sending updates to Workstation #4 Guard 2”. This shows that your synchronizer is connected to Guard 2. The “Tables” displays the current table that the records are being transferred from/to. In this case the “Visitors” table is being shown. Underneath the Tables is the connection destination; here it shows “Guard 2” and IP address associated with that. You can also see what time the transfer started and the estimated remaining time left in the file transfer of the current table. Finally, on the bottom of the display you can see

a visual representation of the percentage left on the current table “Visitors”.



Chapter 6 – Task Manager

One of the most powerful features of the synchronizer, other than the ability to synchronize databases, is the Task Manager. The following will describe many of the features of the Task Manager.

Synchronize Online Workstations (Hard)

This synchronizes stations every “x” min’s even if no new data has appeared to arrive on this side. This would be the standard method for connecting on any cable or DSL modem. If you were to use this with a dial-up modem, the “hard” setting means it will never drop the connection.

Synchronize Online Workstations

This is also known as “soft”, which is it will synchronize with other workstations only when the synchronizer finds that there is data available on this workstation that is newer since the last synchronization. This is typically useful for a system that does not have a dedicated phone line or that the line is shared with another service for a dial-up connection.

Export Log Events

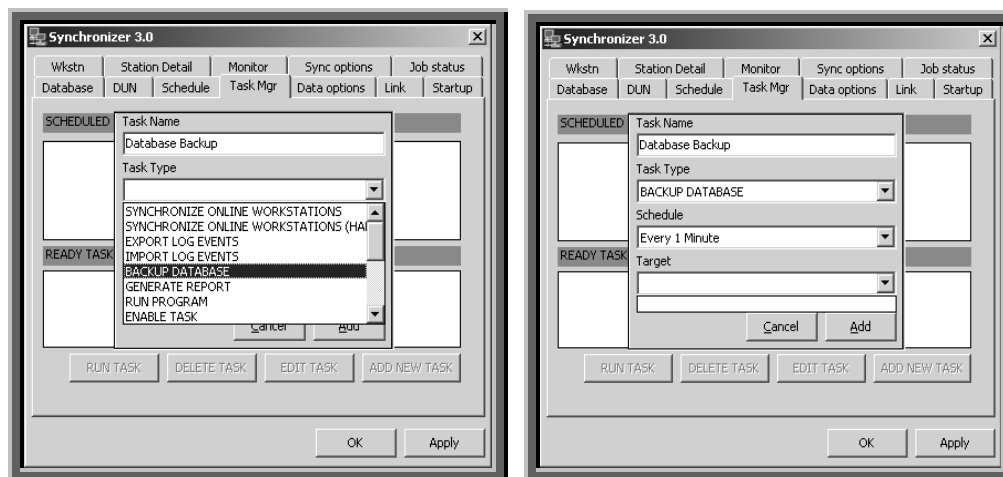
No longer active

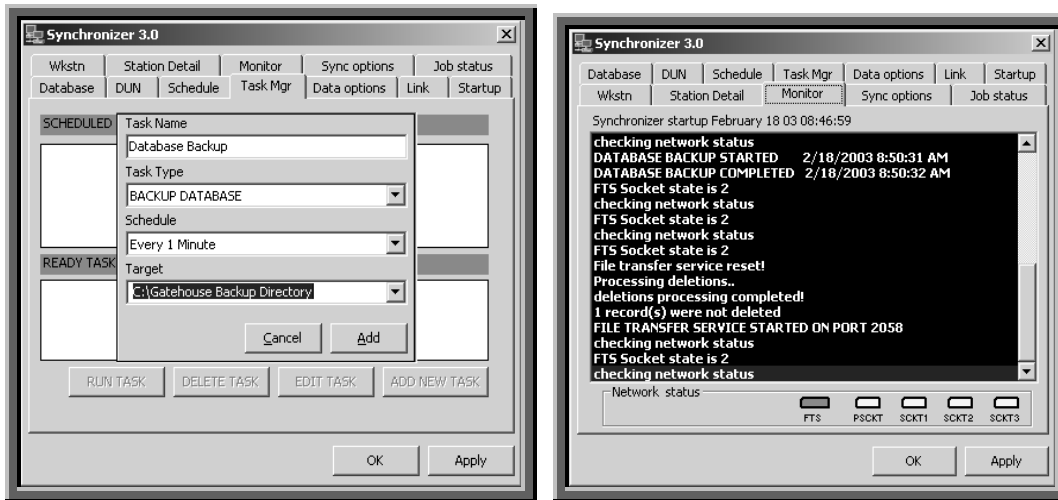
Import Log Events

No longer active

Backup Database

This task is to do an automatic backup of the database on a scheduled date and time. You can schedule this for whenever you want, the program is very flexible. As you can see from the following pictures, you will need to select “BACKUP DATABASE” from the “Task Type” list. You will need to specify the time and date for the backup (you need to set this in “Schedule”). The “TARGET” refers to where you will store your backups once the program runs.





The system will automatically store the following filename in the directory/folder where you want to save your backups. The backup was run on Feb 18, 2003 at 08:50:03 AM, the filename is written to disk like this: **BKP_021803085031.mdb** BKP_ followed by the current date and time with seconds when the backup was executed.

Generate Reports

Future Implementation

Run Program

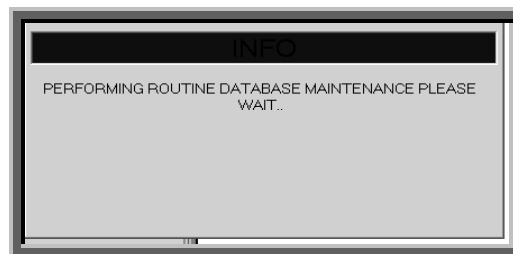
Enable Task

Future Implementation

Disable Task

Future Implementation

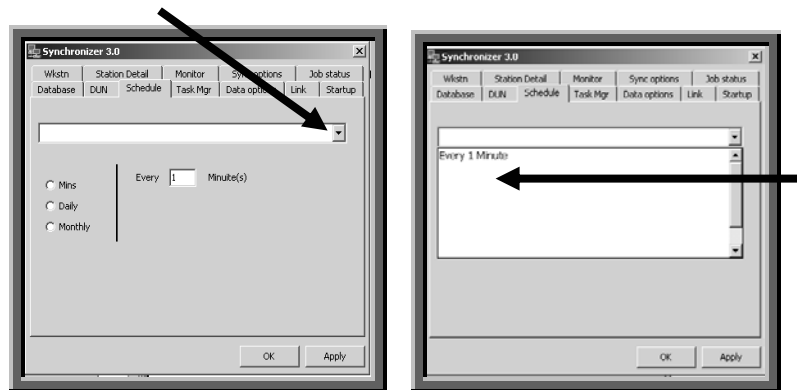
Database Maintenance



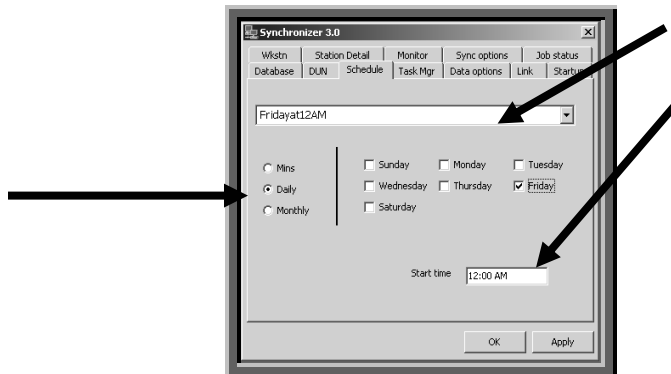
Execute Query

The Execute Query function allows the synchronizer to run any SQL query. In most cases, you will use the `sys_purgeguest` function to remove all the visitor records that have already expired. The following screens will guide you through setting this function up.

The first thing we will need to do is setup a schedule for this to run; so we will click the Schedule tab in the synchronizer. Click on schedule tab, click on the down arrow, and select a BLANK line.



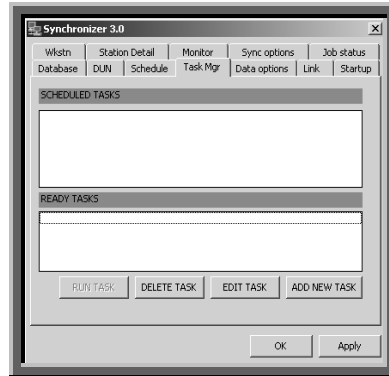
Enter “Fridayat12AM” or whatever you would like to call this scheduled task. Normally you would call the task the same as what you’re going to create to avoid any confusion.



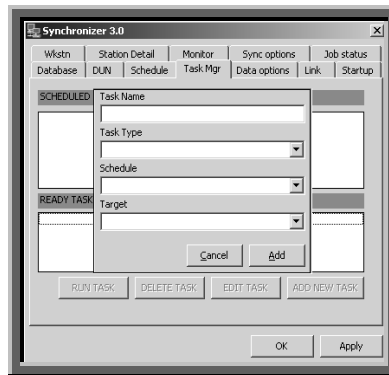
Finally, in Start time, you need to enter the time you want the task to activate. In this example, the default time is set for 12:00 AM, so you won’t have to enter any additional information in this field.

Next, you need to select **DAILY** from the option buttons on the left side of the screen. You will need to place a **CHECK** in the day of the week that you want to set the scheduled task for. Set it for Friday.

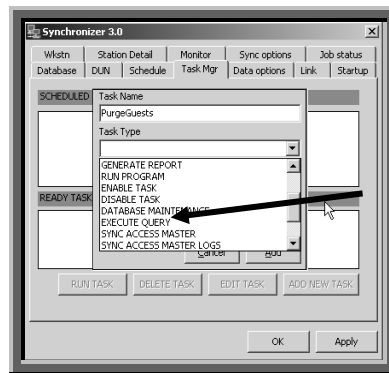
That completes the settings for the schedule tab. We will now move on to the Task Mgr tab.



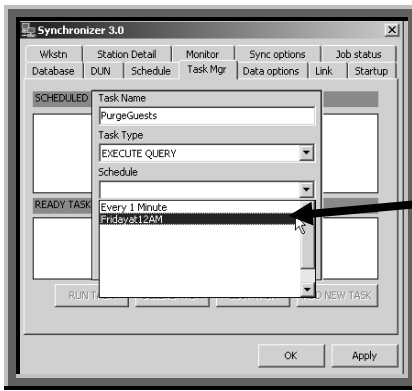
Upon clicking on the Task Mgr, you will have a screen resembling the one directly above. Upon clicking the Add New Task button, you will see a screen like the one below.



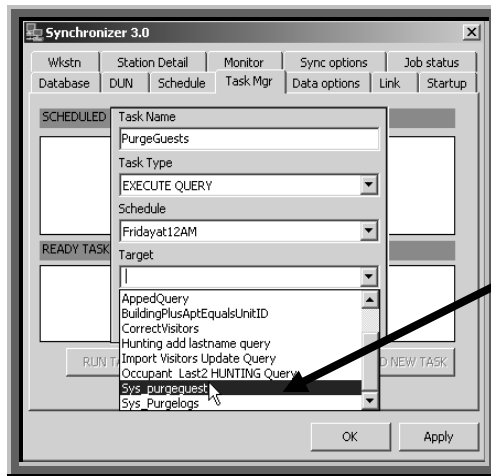
The first piece of information we need to enter is the name of the task. This will be called “PurgeGuests” you may enter any name that you would like to describe this, or just use “PurgeGuests”. The next field, Task Type has a drop-down list box. Upon clicking the box you will see a list similar to the following display. Choose the item from the list called “Execute Query”.



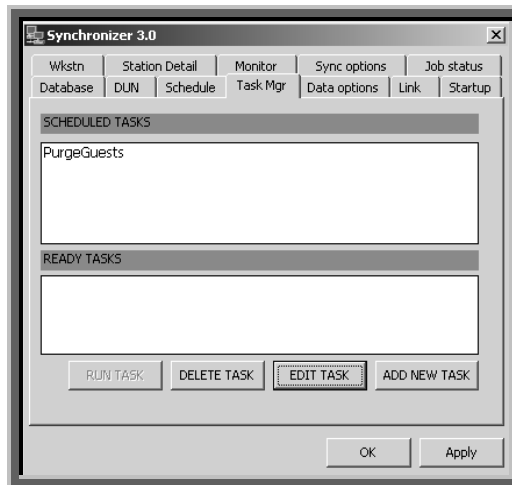
We now need to Schedule when the event of “Execute Query” will occur. In the schedule tab, click on the down arrow similar to the display below and select “Friday 12AM” (or whatever you called the name in the Scheduler tab earlier).



The final field on the dialog box is where you will select what query to execute. When you click on the drop-down combo box, select the entry entitled “sys purgeguest”.



Once your done, click the “Add” button, this should add this entry to the Scheduled task list. The display should look like the one below. Every Friday at 12AM the task will execute and purge all the visitors that are in the database that have expired.





Chapter 7 – In Technical Terms

FIREWALLS

The synchronizer uses FTP ports 2048 and 2058 to send and receive transmissions. If you have a firewall, you must open those ports on any machine that will be running the synchronizer, if you don't, the connections will fail.

DSL/CABLE MODEMS

Static IP vs. Dynamic IP

It is important to have a "STATIC" IP; this is an Internet address for your computer that will not change. When you order Internet service, your ISP (Internet Service Provider) will normally give you a Dynamic IP address. Dynamic is an address that Dynamically changes each time you reboot your computer or your connection drops un-expectedly. Dynamic service is normally less expensive since the ISP does not have to "reserve" a specific address for your computer.

Internet connection providers

Comcast Cable (formally @home & AT&T)

This (ISP) provides a service that allows for 5 unique IP addresses. This is known as Semi-Pro and is geared as the "pro" package because it allows for multiple devices to get different static IP's. The IP's will be static for **6 months** from the first day they are issued. After the 6 months are up, the system will automatically issue new IP addresses. This will work for any device that allows for DHCP. However, if the device such as a Digital Video Recorder "DVR" does not allow for DHCP this will not be a good solution, and a router would be the recommended choice.

DSLX via BellSouth They provide all the NATing and routing internally. You can have 1 public IP that can be accessed from the Internet along with up to 149 Static internal IP addresses through NAT. They also provide much needed firewall protection. The 80.00/connection costs \$40.00 more then standard Bellsouth DSL, but the added protection and automatic NATing is well worth the additional expense. This prevents the customer from needing a firewall on their side.

Bellsouth DSL

This (ISP) provides Dynamic connections as a standard service; you need to request static IP's.

Various other ISP's. (Telephone and cable companies)

There are many Internet Service Providers available; you will need to research them in your particular market to see which is the best fit for you.

Disabling Services in OS



The following information should only be attempted by System Administrators and technical users that understand the risks of changing the registry and stopping services.

To get to the Services screen, most importantly, you must have **ADMINISTRATOR** access, otherwise these features will not be available from your logon account.

Windows 2000 / Windows XP

If you get messages that you can't login to the software because so and so has locked the database or if the database gets corrupted. Placing the following into the registry should resolve this issue.

[Note: The Gatehouse 4.x install automatically creates these during the setup.]

EnableOplocks

*Hkey Local Machine *System *Current Control Set *Services *LanManServer *Parameters

Add this entry DWORD EnableOplocks = 0

*Hkey Local Machine *System *Current Control Set *Services *LanManWorkstation *Parameters

Add this entry DWORD EnableOplocks = 0

Messenger Service

Removing these services will prevent a computer from being swarmed with “pop-up” messages. Removing this option will not stop MSN messenger from operating, they are two totally separate entities. These pop-up messages are different then the Internet web site pop-ups.

*Start *Settings *Control Panel *Administrative Tools *Services

Scroll down to “Messenger”

Change Startup type to “Manual” (from automatic)

Change service status to stopped. Click STOP.

Remote Desktop (XP)

Unless you specifically need this option enabled, it would be wise to disable this.

This can be accomplished by *Start *Settings *Control Panel *System

Then click on the tab “Remote Desktop”

Uncheck the “allow remote connection”

Firewall Settings (XP)

Advanced settings open 2048/2058 ports.

You need to have these ports open specifically for the synchronizer to transmit and receive data. If you don't run a firewall, you will not need to worry about this setting. However, if you are using Windows XP, you have a built in firewall. If you enable it, you will need to open the ports to allow the synchronizer to function. You will accomplish this by following the next series of the screens.

In Windows XP, when you go to your networking properties, click the advanced tab, place a check in the box that says something similar to "Enable Firewall". That will enable the protection, but you will need to open a few ports to allow access for the synchronizer. Click on the settings button in the bottom right of the screen. You will see a list of ports to open/close. The only ports needed to be open are 4899, 2048, and 2058. Since these are new ports, you will need to manually add these to the list of ports. Your administrator should be able to accomplish this. Due to the complexity of changes, we are not going to go that deep into this "users" manual.



Chapter 8 – Problems and Solutions

Problem: Dialup Networking options are grayed out.

Solution: Enable DUN checkbox in sync options and restart the synchronizer.

Problem: Synchronizer not responding (visually, it does not appear to be running)

Solution: Restart the synchronizer on the side it's not responding.

Problem: Invalid or no response from peer #9

Solution: Restart the synchronizer.

Problem: Unrecognized Database Format

Solution: Run the FixDB utility. (Database is possibly corrupted).

Problem: 3464 - Data type mismatch in criteria expression

Solution: Make sure the exact same tables are checked

Problem: During synchronization, the system responds with: Aborted connection to Guard 2

Solution: Make sure the exact same tables are selected on both sides.

Problem: Synchronizer displays: 3 record(s) were not deleted.

Solution: review the deletions table for possible problems

Problem: Synchronizer displays: There were too many errors!

Solution: Possible problem with the table structure, but could result to other issues.

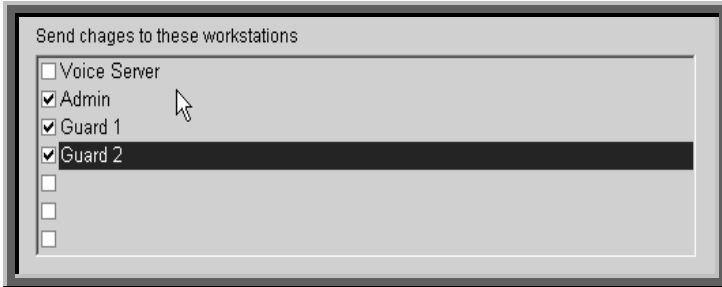


Chapter 9 - Understanding Vector Relationships

Vectors are used in the Gatehouse software to send data to another machine.

The following example includes 2 guardhouses and 1 administrative station, and 1 voice server.

Pretend that the main hub for which all the data is dispatched from is the Voice server. Here is what it would look like from the Voice Server. The following shows that the data needs to be sent to Admin, Guard1, and Guard2. The check marks represent the vectors from the grid.



You would figure out the vector that synchronizer is using by adding up the vectors of the Gatehouse Machines your synchronizing with. If you have 3 computers in the Gatehouse network (2 Guardhouses, 1 Admin) all at separate locations you would figure out the vector by the following. Don't include the vector of the machine you're using.

VECTOR TOTAL = (14)

Vectors	→	1	2	4	8	16	32	64	128
Workstation ID	→	1	2	3	4	5	6	7	8

Because we are at the voice server and that is the hub to dispatch all the information, this vector is not checked because if it were checked, we would be sending information back to ourselves (from ourselves).

ID 1 – Voice Server (1)

ID 2 – **Admin Station (2)**

ID 3 – **Guard Workstation 1 (4)**

ID 4 – **Guard Workstation 2 (8)**

You can have up to 16 guardhouses in the Gatehouse System.

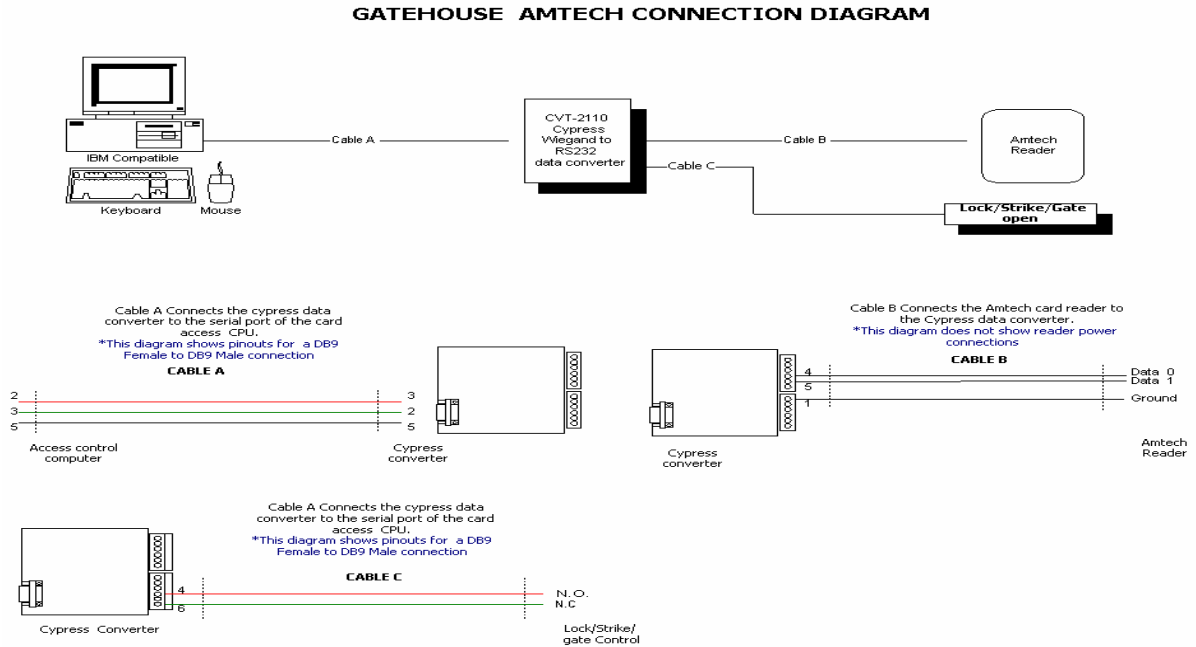
- 1 – Voice Server
- 2 – Admin Station
- 3 – Guard house 1
- 4 – Guard house 2
- 5 – Guard house 3
- 6 – Guard house 4
- 7 – Guard house 5
- 8 – Guard house 6



Chapter 10

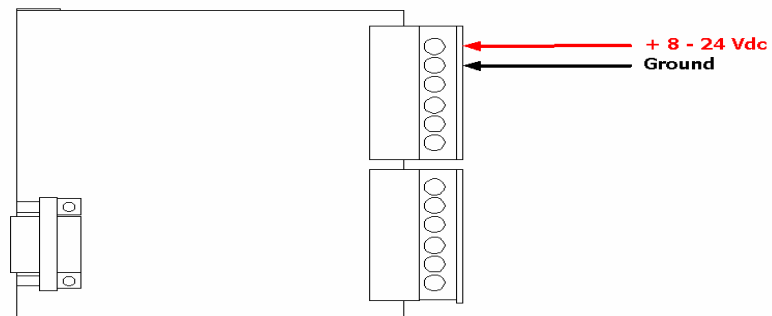
Connection Diagrams

Gatehouse Amtech Connection Diagram



Cypress Board Power Connections

CYPRESS CVT- 2110 POWER CONNECTIONS





Cypress CVT-2110 Amtech Data Connection

CYPRESS CVT- 2110 Amtech Connection

