



HandNet for Windows

Terminal User's Guide



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Getting Started

Introduction

What HandNet Does

HandNet for Windows lets you control and monitor many connected HandKey readers. In this one program, you can control who can use each reader and when. You can also monitor activity and alarms for all readers at once.

Registering HandNet

After the first time you use this Version of HandNet, you have fourteen days to register it. You must register it even if you registered your previous Version of HandNet. If you do not register it within fourteen days, you will not be able to log into the program. The process should only take a minute.

1. If you have not logged into HandNet yet, log in; see page 4.
2. If the registration screen is not shown, pick *Register* from the *File* menu, and click the *Print the registration form* button on that screen.
3. Fill the form out and fax it to the number at the top of the form. Once we receive your completed form, we will fax an activation code back to you within two business days (since it could take two days for us to send your code back, please print and send the registration form now; do not wait until day fourteen).
4. Pick *Register* from the *File* menu, enter the activation code we sent, and click the *Activate* button. Once you do this, HandNet is permanently functional.



New Features in Version 2.0

HandNet for Windows Version 2.0 provides a number of new features, but these are only available to you if you purchased the upgrade to the full feature set. If you did not purchase this upgrade and you would like to, please contact your dealer; once you pay for the upgrade, we will send you a new access code to enter on the *Registration* screen. Once you enter this code, all the new features are immediately available to you.

How to tell if I have access to the new features

1. From the main menu bar, click the *Help* menu, and then click *About HandNet for Windows*.
2. Check the bottom of the box that pops up. To be able to use the new features, the last line must say *You may use all features of this software*. If this line says *Your current license does not let you use the enroll...*, you must contact your dealer and upgrade your license before you can use the new features (once you upgrade, we will send you an access code that makes these feature available).

The new features

Enrolling Users from HandNet: Previously, to enroll a user you had to go to a features reader, enter command mode on the reader, and enroll the user. Now, if you have a reader that is near the computer, you can add the user in HandNet, select the reader to enroll at, and pick *Enroll* from the *Reader* menu without ever having to deal with command mode on the reader; see page 87.

User Access for a Limited Time Period: HandNet now lets you specify that a user's access should start and stop at certain days or times. For example, if a contractor needs access to your facility, you can now set the access to expire on the day that the contract ends. This gives you more complete control of who can access readers and when; see page 93.

Import/Export Users: If you have more than one computer system running HandNet and you want users added on one system to be available to the others, HandNet now lets you export user information from one program and import it into another; see page 99.

Exporting Activity for External Report Generation: If you want to create custom activity reports using some external report tool, *Export Activity* on the *File* menu sends all of your current activity to an access database file called *expactvt.mdb*; see page 116. While the main HandNet database files are password protected for security reasons, this file is not so you can open it and access any information in it at will. You can also set HandNet up to automatically export activity whenever you archive activity.

* * * * *

Getting Help in HandNet

The online help has the same information that is in this manual. To get help in HandNet, press F1. This brings up help for the screen you are on. From there, you can use the contents, index, or search tabs at the left of the help window to find any topic.

For Basic Topics

Click the *Contents* tab at the top of the left pane, click a book to open and click a topic. Not every topic is in the *Contents* tab, so if you do not find what you need, try the *Index* or *Search* tabs.

For Groups of Topics on a Single Theme

In addition to the contents you can also click on the pull-down list right under the *Previous/Next* buttons (in the bottom middle of the header). This list contains a number of important groups of topics. Once you are on one of these topics, the *Next* and *Previous* buttons work as well.

Screens and Menus

On menus and screens in this help, click any option on the screen to jump to help on that item.

When to Use the Index and When to Search

Use the index for main themes like adding a reader or enrolling a user. Use the search for minor points. For example, if you type *enroll* on the *Index* tab, you get three main topics that deal with enrolling users. On the *Search* tab, *enroll* gets you nearly thirty topics where *enroll* appears somewhere in the text. For main topics, the index gets you to what you want more directly. On the other hand, if you remembered that a screen somewhere said something about the number of tries a user gets before having access denied, the *Search* tab would check the entire text and find this detail for you. Use the *Index* tab to find items that are likely to be a main topic; use the search tab to find minor points.

Marking a Topic to Return to

To mark a topic in the help that you want to come back to:

1. Go to the topic that you want to mark.
2. Click the *Favorites* tab at the top of the left pane.
3. Click the *Add* button at the bottom of the pane. This adds the topic to your favorites list.

To get back to any marked topic later:

1. Click the *Favorites* tab at the top of the left pane of the help window.
2. Double-click the topic.

Getting In and Getting Out

Starting HandNet

To start HandNet, either click the HandNet icon on your Windows desktop, or click the *Start* menu on your Windows taskbar, highlight *Programs*, and highlight and click *HandNet for Windows*.

Logging into HandNet

HandNet requires you to log in before you can make any changes; this prevents unauthorized people from changing information. If you are not logged in, you can look at the lists of activity, users, and readers (network), but you cannot change any information and cannot use any other options.

1. Click *Login* on the *Toolbar*, or pick *Login* from the *File* menu. The program brings up this box:
2. Type your name and password, and click *OK*.



If this is a new system: Use a name of *1234* and a password of *new* (change this name and password immediately so unauthorized people cannot use the program).

After initial setup: If you forget your name or password, see your supervisor or security administrator.

Passwords are NOT case sensitive. For example, if your password is *narnia*, then *Narnia* and *NARNIA* would also work.

After you are done using HandNet, be sure to log out again so unauthorized operators will not be able to use the program.

Changing the Initial Login Name and Password

HandNet comes set up with a login name of *1234* with a password of *NEW*. This lets you get into HandNet when you first start using it, but this is not secure; anyone may read this manual and find this name and password. To keep unauthorized users from using HandNet, change this password before you add any other information.

1. Click the *View* menu.
2. Click *Settings*.
3. Click the *Operators* tab.
4. Click the operator named *1234* and then click *Edit*. This takes you to the *Operator Definition* screen, which has settings for this user.
5. Change the *Name* to your name, and change the *Password* to something you will remember but that no one else will be able to guess. Click *OK* to return to the list of operators.

Remember the name and password you enter; if you forget it, you will not be able to get into HandNet. Do not change any other settings; this user is set up to use any option in HandNet; if you uncheck any boxes, you will not be able to use the corresponding options.

6. Click the *Close* button at the bottom of the box to close *System Settings*.

Logging out of HandNet

Log out of HandNet when you are done using it. This prevents unauthorized people from changing information. Someone who is not logged in can look at the lists of activity (including alarms), users, and readers, but cannot change any information or use any other options.

To log out, click the *Logout* button on the *Toolbar* or pick *Login* again from the *File* menu to uncheck it.

Exiting HandNet

For security purposes, you should generally log out of HandNet when you are done making changes so unauthorized people cannot add users or make changes. However, unless you are going to install a new Version of the HandNet software, or you need to restart the computer HandNet is running on, you do not typically want to exit from the HandNet program. If you exit (that is, shut down the program), you disconnect it from all readers. While all readers will continue to record activity and give access as appropriate, the program will not receive any information from the readers or process any alarms during the time that HandNet is not running. Because of this, you would usually leave HandNet running all the time.

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Getting Started Overview

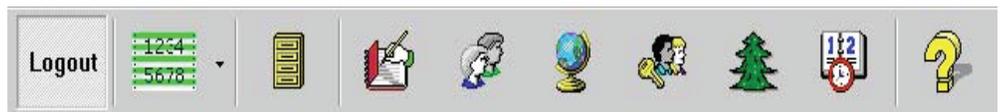
Procedure for Getting Started and Setting Up

Getting Started with HandNet for Windows	
QUICK STEPS	1. Log in; see page 4.
	2. If you have not done so yet, register HandNet. HandNet will not let you log in after fourteen days if you do not register it; see page 1.
	3. Change the initial password so unauthorized users will not be able to use the program; see page 4.
	4. If you have been using readers without HandNet and you want to get the users from the reader(s): <ol style="list-style-type: none">1. Pick <i>Settings</i> from the <i>View</i> menu.2. Click the <i>Security</i> tab.3. Check the box by <i>Do not delete unauthorized enrollments</i>.
	This prevents HandNet from deleting the users from the readers when you enable them (you will import the users from the reader later, after setting up the readers and sites). If you did not change this setting, when you enabled the site and reader, HandNet would regard all of the users in the reader as unauthorized (because they were not in HandNet yet), and it would delete them from the reader.
	5. Set up site(s), that is, groups of connected readers; see page 33.
	6. Set up readers; see page 42.
	7. If you want to control which days and times users can access readers, set up time zones (see page 61) and holidays (see page 65).
	8. If you have set up time zones and holidays, or if you want to give some users access through some readers but not others, set up access profiles; see page 67.
	9. If you have previously been using one of our older MS-DOS products (HandNet Plus or HandNet), convert the users; see page 98 (if you have been using HandNet for Windows 1.09 or later, you do not need to convert anything; this Version of HandNet automatically updates information for the new Version).
	10. If you have been previously using readers without one of the HandNet products and you need to get users from the reader(s), upload users from the reader(s); see <i>Getting User Information from a Reader</i> on page 99.
	11. Add users; see page 74.
	12. Enroll the users; see page 87.
13. When you are done using HandNet, be sure to log out so unauthorized people will not be able to add or change anything; see page 5.	

Menus and Navigation

Toolbar

The toolbar looks like this:



If you are not logged in yet, the first button will be a login button and a number of the other will be disabled.

Turning the Toolbar On and Off

Options on the Toolbar

Toolbar on the *View* menu turns it on or off.

	<p>You see this button if you are not logged in yet. Click this button to login to HandNet; see page 4. Without logging in, you cannot make any changes or do anything other than look at basic information.</p>
	<p>Once you log in, the first button changes to the <i>Logout</i> button. If you are going away from the computer, logging out prevents making unauthorized changes. If anyone could possibly get access to the computer in your absence, logging out is an important security precaution.</p>
	<p>The main button lets you generate a custom activity report; see <i>Creating a Custom Activity Report from the Reports Menu</i> on page 105. The small arrow to the right pulls down the <i>Reports</i> menu; see page 13.</p>
	<p>This lets you archive older activity; see page 113.</p>
	<p>This opens the <i>Activity</i> window; see page 101. The <i>Activity</i> window lists all actions you take in HandNet, and actions or alarms from each reader. If the <i>Activity</i> window is already open and behind another window, this brings it to the front.</p>
	<p>This opens the <i>Users</i> window; see page 71. This lists everyone who is potentially able to access readers. If the <i>Users</i> window is already open and behind another window, this brings it to the front.</p>
	<p>This opens the <i>Network</i> window; see page 31. The <i>Network</i> window lists all of your sites, readers, and their current status. If the network window is already open and behind another window, this brings it to the front.</p>

	<p>This takes you to the access profile settings; see page 67. Access profiles let you control which readers different types of users have access to and when.</p>
	<p>This takes you to the holidays settings; see page 65. If users have different access on holidays than on other days, the holidays settings identify when those days are.</p>
	<p>This takes you to the settings that let you define different periods of time when users can have access; see page 61 (in HandNet, we call these time zones, but there is no connection to the time zones we usually think of that have to do with different times around the world).</p>
	<p>This pops up the online help for HandNet. The help contains the same information as this manual but arranged in a slightly different format. To get help for the screen you are on, you can also press F1 anywhere in HandNet. The help has a complete index and also lets you search for specific text; see page 3.</p>

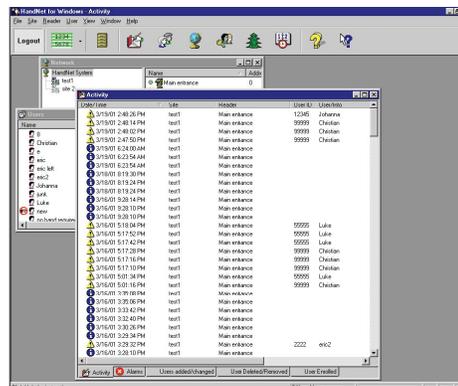
* * * * *

Tiling the Display Windows

HandNet lets you keep open the *Activity* window, the *Users* window, and the *Network* window (which shows sites and readers). If you have more than one window open, *Tile Horizontally* on the *Window* menu adjusts the open windows so they fill the Handnet window from side to side, and so they do not overlap and cover each other up.

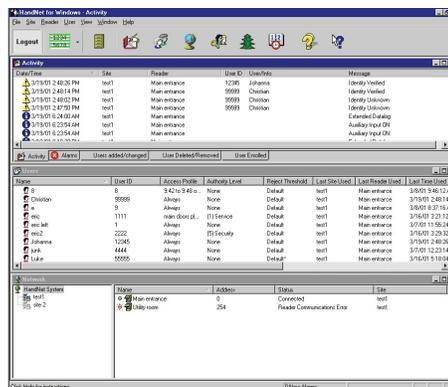
Example of Windows that are NOT Tiled

Notice that the front windows cover up parts of the windows behind them and that the windows do not fill up the screen from side to side.



Example of Windows that ARE Tiled

Notice that none of these windows cover any parts of the other, and that the windows now fill up the screen from side to side.



* * * * *

Menu Overviews

Pulling Down Menus with the Keyboard instead of the Mouse

If you prefer working from the keyboard rather than clicking with the mouse, you can hold the *ALT* key down and then type the underlined letter in the choice. For example, to open the *View* menu, you would hold *ALT* down and type *V* (this is often the first letter in the option, but not always).

Main Menu Bar

The main menu bar looks like this:



These menu options are briefly summarized below. The following pages contain more detail on the options on these menus.

File: The *File* menu lets you log in and out, generate reports, archive older activity, import setup information, and shut the program down; see page 11.

Site: The *Site* menu lets you add and change settings for sites (groups of connected readers); see page 14.

Reader: The *Reader* menu lets you add new readers, delete readers, and rename readers in the HandNet network. You can also unlock, relock, and lockup the selected reader, enroll a user at the selected reader, activate and deactivate an auxiliary device, and send (download) time, time zones, users, and setup configuration to selected readers; see page 15.

User: The *User* menu lets you add users, delete users, rename users, change information for a selected user, and create custom entries to collect additional information about users; see page 17.

View: The *View* menu lets you open the *Users*, *Activity*, and *Network* windows (the *Activity* window lists both activity and alarms; the *Network* window lists all of your sites and readers). The *View* menu also lets you turn the toolbar on or off. And it lets you get to access profiles, holidays, activity filters, time zones, and system settings (you do not need these options on an ongoing basis; these are normally only used when setting the program up); see page 18.

Window: The *Window* menu lets you switch between open windows, tile open windows horizontally on the screen, or switch panes within the *Network* window; see page 20.

Help: The *Help* menu lets you pop up the help system you are looking at now (you can also press F1 to pop up *Help*); see page 21.

File Menu

The *File* menu lets you log in and out, generate reports, archive older activity, import setup information, and shut the program down.

Login: You must log in to HandNet before you can do anything other than look at information; see page 4. You must log in to acknowledge alarms, add sites and readers, add or change users. When you are done using the program, click this same option again to log out so unauthorized operators cannot use the program.

Reports: This brings up another menu that lists several standard reports, and that lets you create custom reports based on the activity that you see in the *Activity* window; see page 13.

Archive: This takes older information from the current activity file and stores it in a separate file. Once you archive information, the activity is no longer visible in the *Activity* window, but you can still generate reports based on the archives.

Convert Handnet+: If you have been using HandNet+ or HandNet (our older MS-DOS programs), and are just switching to HandNet for Windows, this converts user information from HandNet+ and adds it to the user list in HandNet for Windows. Information imported includes: user name, user ID number, authority level, and reject threshold; see page 98.

Register: After the first time you use this Version of HandNet, you have fourteen days to register it. You must register it even if you registered your previous Version of HandNet. If you do not register it within fourteen days, you will not be able to log into the program. The process should only take a minute. To register HandNet:

1. If the registration screen is not shown, pick *Register* from the *File* menu, and print the registration form.
2. Fill the form out and fax it to the number at the top of the form. Once we receive your completed form, we will fax an activation code back to you within two business days (since this could take two days for us to send your code back, please print and send the registration form now; do not wait until day fourteen).
3. Pick *Register* from the *File* menu, enter the activation code we sent, and click the *Activate* button. Once you do this, HandNet is permanently functional.

Import TZ: This lets you change the access profile to *Always* or *Never* for many users based on information in a text file; see *Changing Access for Many Users at Once* on page 95.

Import Users: If you have readers connected to several different computers (each with its own copy of HandNet) and if users added to one system need to be available on the others, *Import Users* lets you bring in users that were added or changed in another copy of HandNet; see page 99. If all of your readers are connected to a single copy of HandNet, you do not need this feature.



Export Activity: If you want to create custom activity reports using some external report tool, *Export Activity* sends all of your current activity to an access database file called *expactvt.mdb*; see page 115. The main HandNet database files are password protected for security reasons, but this file is not, so you can open it and access any information in it. If you are only going to generate reports with *Activity Reports* on the *File* menu, you do not need this option; using it would only create a file that you do not need.

Exit: This closes the HandNet program, disconnecting it from all readers. All readers will continue to be able to open doors, but the program will not receive any information from the readers or process any alarms while HandNet is not running. Unless you are going to install a new Version of the HandNet software, or you need to restart the computer that HandNet is running on, you do not want to exit the HandNet program. For security purposes, you would generally logout so unauthorized people cannot add users or make changes, but you would leave the HandNet program running all the time.

Reports Menu

To get to the reports menu, click *Reports* on the *File* menu. This menu lets you create custom activity reports and print several stock reports.

Activity..

Users

Access Profiles

Holidays

Network

Time Zones

Activity: This lets you create reports based on any activity recorded by HandNet. This includes any information in the *Activity* window and any activity that you have chosen to archive. You can customize these reports to include only the information you need; see *Creating and Printing Custom Activity Views* on page 105.

Users: This lists all of the users in the system. The report includes each user's name, ID number, authority level, reject level, and access profile. It also indicates the last reader used, the last access time, and whether the user is enrolled. You can use this report to see if a user is enrolled and to make sure one user is not enrolled with multiple ID numbers. If you have created custom user entries, this report does NOT show any of them.

Access Profiles: If you have set up different access profiles to give different types of users access to different readers or at different times, then this report can help you see whether you have set your access profiles up the way you wanted. This report lists each access profile, sites and readers the profile gets access to, and the time zone that users can access each reader; see page 67 for more about setting up access profiles.

Holidays: This list all of the holidays you have set up in HandNet. It lists the name of each holiday, the month, and the date. This report helps you make sure you have correctly added all holidays for the year (if you have set up any time zones to prevent access on holidays, or to give different access on holidays than on other days, the *Holidays* list identifies when those holidays are. If you do not give different access on holidays than on other days, you do not need to set holidays up or print this report); see page 65 for more about setting up holidays.

Network: This report tells whether each site is enabled and connection information (communications port, baud rate, phone number or IP address, time adjustment, and modem speaker status). It also lists readers at the site, whether they are enabled, and their addresses. This report is used during setup to make sure the network is set up properly.

Time Zones: This lists all of the different user access period that you have set up (though we call these access periods *time zones*, they have no connection to the time zones we usually think of that have to do with different times around the world). The report includes the name of each time zone, the time periods it includes, and the days of the week those time periods apply. During setup, this report helps you see if you have set up all of the necessary time zones and configured them correctly (if you do not need to limit access by day or time -that is, if all users may use the readers twenty-four hours a day, seven days a week if they wanted- then you do not need time zones); see page 61 for more about setting up time zones.

Site Menu

In HandNet, a site refers to a group of up to thirty-two connected readers. Put another way, one reader is physically connected to the computer (by network, serial cable, or modem), and up to thirty-one additional readers can be daisy chained to that first reader; that is, a cable runs from the first reader to the second, another cable runs from the second to the third, and so on. We call this chain of readers a site. A site does not have any connection to a particular building or location; these readers could be in one building or in more than one building (if the buildings are close enough to run a cable from one to the other), and one building could have one or many sites.

<u>A</u> dd Site... Ins
<u>D</u> elete Del
<u>R</u> ename
<u>P</u> roperties Enter

Add Site: This adds a new site to the HandNet network; see page 34. You must set up a site in HandNet before you can set up readers.

Delete: If you have selected a site in the *Network* window, *Delete* removes the site and all readers assigned to it. HandNet will ask you to confirm that you want to delete the site. Make sure that you have selected the appropriate site since, if you continue, you will not be able to undo the deletion unless you have made a backup of the files that contain your site and reader information (see page 126 for more about making backups).

Rename: If you have selected a site in the *Network* window, this lets you rename that site (you can also just click once on the site name in the *Network* window and rename it there without using this option). Renaming a site does not change any of its properties, and does not require you to set anything up again; it only changes the name that appears in the lists on the screen and in reports that you generate. You might want to rename a site if you discovered that the original name is not clear.

Properties: This takes you to a window with three tabs that let you look at or change settings related to how the site is connected to the computer with the HandNet software; see *Changing a Site* on page 34 for further detail.

Reader Menu

The *Reader* menu lets you add new readers, delete readers, and rename readers in the HandNet network. You can also unlock, relock, and lockup the selected reader, enroll a user at the selected reader, activate and deactivate auxiliary output, and send (download) time, time zones, users, and setup configuration to selected readers.

To do anything here, except add a reader, you must select one or more readers first.

Add Reader: This lets you add and configure a reader to the HandNet network; see page 42 (you must set up a site before you can add readers in HandNet).



Unlock: When you highlight *Unlock* on the *Reader* menu, you see another menu with two choices: *Indefinite* and *Timed*.

Indefinite unlocks the door connected to that reader and leaves it unlocked until you choose *Relock* on the *Reader* menu to lock it again. If you regularly want a door unlocked during certain hours, pick properties from the *Reader* menu and go to the *Configuration* screen. In the *Auto Unlock Time Zone* you can indicate when the door should be automatically unlocked. The program will automatically lock the door again at the end of the time zone.

Timed unlocks the door connected to that reader and leaves it unlocked only for the number of seconds specified on the *Configuration* page in the *Reader Properties* (that is, it unlocks the door for the same number of seconds that the door would be unlocked if it were opened by a reader).

See *Locking and Unlocking Doors* on page 130 for more about these options.

Relock: If you have unlocked a door with *Unlock*, *Indefinite* option, this locks it again; see page 128.

Lockup: This disables the lock on the door for the selected reader. The reader will still let users enter their ID numbers and still verify hands, but the door will stay locked even for valid users. The door will stay locked until you choose *Unlock* or *Relock*; see page 128.

Auxiliary Output: If an auxiliary device is connected to a reader, this lets you turn that device on or off for the selected reader; see page 129. *Auxiliary Output* can control local lighting, trigger a third party alarm system, activate a bell, and so on.

Download: This lets you send information to the selected readers. While HandNet automatically sends the appropriate information to readers, occasionally you will need to use this when correcting a problem with a reader; see *Resending Information to a Reader* on page 60.

Upload (Users): This lets you get user information from the selected readers.

You would do this if you had been using a reader independent of the HandNet program and now wanted to add all of the users stored in that reader to the program; see *Getting User Information from a Reader* on page 99.

Delete: This removes the selected readers from the HandNet network.

Rename: This renames the selected reader. Renaming the reader does not change any of its properties and does not require you to set anything up again; it only changes the name that appears in the lists on the screen and in reports that you generate. You might rename a reader if you discovered that the original name was not clear or if you changed the purpose of the areas the reader gave access to.

Properties: This takes you to a window with a number of tabs that let you look at or change a number of settings related to the reader; see *Changing Reader Settings with Reader Properties* on page 45.

User Menu

The *User* menu lets you add users, delete users, rename users, change information for a selected user, and create custom entries to collect additional information about users (if you have already set up users in a reader that you are connecting to HandNet, do not recreate those users; you can *Upload Users* from the reader; see *Getting User Information from a Reader* on page 99).

Add <u>N</u> ew...	Ins
<u>D</u> el	Del
<u>R</u> ename	
<u>P</u> roperties	Enter
<u>D</u> B Properties	

To change, delete, or rename users, select a user first on the list of users (for the list of users, pick *Users* from the *View* menu, or press *CTRL-U*).

Add New: This lets you add new users; see page 74. After you add the user, you must enroll the user (see page 87) before the user will have access through the readers.

Delete: This lets you remove a user from the program. You would do this if you never wanted that user to be able to use any of the readers in the HandNet network (if you might need the user again but want to keep the user from using any of the readers, you can also change the user's access profile to *Never*).

Rename: This lets you rename the selected user. You would use this if you entered the user's name incorrectly. You would also use this if you added multiple users at once. When you use *Add multiple new users* to add a number of users automatically, the program uses the ID number for the name. You would want to rename these users so you could identify which ID is for which user.

Properties: This lets you look at or change information for the selected user; see *Changing Users* on page 90.

DB Properties: This gives you a summary of the total numbers of enrolled and unenrolled users. It also lets you add custom entries so you can collect additional information about users. For example, depending on your needs, you might collect emergency phone numbers, birthdays, employment start dates, or any other information you needed about your users; see *Adding Custom User Entries* on page 97.

View Menu

The *View* menu lets you open the *Users*, *Activity*, and *Network* windows (the *Activity* window lists both activity and alarms; the *Network* window lists all of your sites and readers). The *View* menu also lets you turn the toolbar on or off.

It also lets you get to access profiles, holidays, activity filters, time zones, and system settings. You do not need these options on an ongoing basis; they are normally only used when setting HandNet up.

Toolbar: This turns the toolbar off if it is on and turns it on if it is off. The toolbar has icons that help you quickly get to common options; see page 7. The toolbar is shown when you start HandNet. A check is shown by this option when the toolbar is displayed.

Activity: This opens the *Activity* window (or brings it to the front if it is already open and behind other windows). This lets you see recent activity and alarms. If you have created any activity filters to create lists of specific types of activities, these views are also available here. The tabs at the bottom of this window let you switch between the activity list, the alarm list, and any custom views you have created; see page 101 for more about the *Activity* window.

Users: This opens the *Users* window (or brings it to the front if it is already open and behind other windows). This window lists everyone who could potentially gain access through a hand reader; see page 71 for more about the users window (there is no connection between this list and the operators authorized to use HandNet; for people who can use HandNet, see the *Operators* tab in *System Settings* on page 24).

Network: This opens the *Network* window (or brings it to the front if it is already open and behind other windows). This window lists all of your sites and readers; see page 31 for more about the *Network* window.

Access Profiles: If some users can only use certain hand readers and/or only use them at certain times or on certain days, access profiles define when each type of user can use each reader. For example, suppose your maintenance staff should have access to the maintenance rooms seven days a week, your office staff should have access to the office but only during business hours, and your supervisors should have access to everything at any time. You would create three access profiles: one for supervisors, one for office staff, and one for maintenance personnel. These profiles would identify which readers each group could use. In these profiles you would also identify which time periods each group could use the different readers (you would set up these time periods first using time zones). After creating these different profiles, whenever you added a user, you would just identify which group the user was a part of, and the access profile for that group would automatically give the appropriate access; see page 67 for more on setting up access profiles.



To limit access to certain days or times, you must set up time zones before creating access profiles.

If you want all users to be able to use every reader any time, you do not need to set up access profiles. HandNet comes set up with an *Always* profile that lets users use any reader in the system twenty-four hours per day, seven days per week. It also has a *Never* profile that does not let the user verify at any reader at any time.

Holidays: If you have set up any time zones to prevent access on holidays or to give different access on holidays than on other days, the holidays list identifies when those holidays are. If you do not give different access on holidays than on other days, you do not need to use this option; see page 65 for more on setting up holidays.

Time Zones: If you want some users to be able to use certain readers only during certain hours or on certain days of the week, time zones let you identify when access is available. For example, suppose some users should only be able to gain access through certain readers between 8:00 AM and 5:00 PM, Monday through Friday. You would create a time zone that identified these times and days, associate that time zone with appropriate readers using an access profile, and then assign that access profile to the users. After you did this, users with that access profile would only have access during the times you identified in the time zone; see page 61 for more on setting up time zones.

If you do not need to limit access by day or time (that is, if users could use the readers twenty-four hours a day, seven days a week if they wanted), then you do not need to set up time zones.

Activity Filters: This lets you customize the information you see in an activity window by letting you identify the dates, times, sites, readers, users, message types, and messages you want to see. For example, suppose you want to see who's come in through the main entrance without having to wade through messages related to activity at other readers. You could create an activity profile that listed activity only from the main entrance reader and only if the activity was *Identity verified* (the message you get when someone enters an ID and the hand is recognized). You would then be able to choose this view and see only this activity. Activity filters can be much more complex than this; they can filter or limit an activity list to include any subset of information you need (after you create an activity filter, a tab at the bottom of the activity window will list the name of the filter; just click that tab for the corresponding information); see *Creating a Custom Activity View* on page 105 for more information.

Settings: This lets you look at or change system-wide settings; see page 22. This includes the name of the system, security, who can use HandNet, which messages trigger alarms, when old messages should be archived, and settings for importing and exporting users.

Window Menu

The *Window* menu lets you switch between open windows, tile open windows horizontally on the screen, or switch panes within the *Network* window.

You will see a check mark to the left of the window that is currently active.

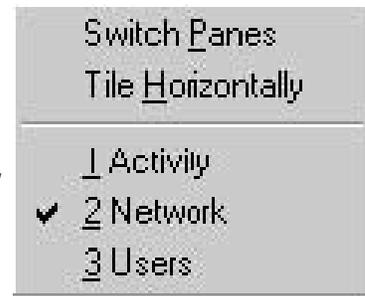
Switch Panes: If the *Network* window is open, *Switch Panes* switches you back and forth between the list of sites in the left pane of the window, and the list of readers in the right pane of the window. This is primarily useful for users who cannot use a mouse; if you can use a mouse, it is easier to just click the pane you want. If the *Network* window is not open, this choice does not do anything.

Tile Horizontally: This adjusts any open windows so they fill the HandNet window from side to side and so they do not overlap and cover each other up. If you are not sure what tiling is, see the example on page 9.

Activity: This choice is only here if you have the *Activity* window open. This makes the *Activity* window the active window (if the *Activity* window is not open, open it by typing *CTRL-A* or by picking *Activity* from the *View* menu). The *Activity* window shows the activity log, error messages, and any custom activity views you have created; see page 101 for more about the *Activity* window.

Network: This choice is only here if you have the *Network* window open. This makes the *Network* window the active window. The *Network* window lists sites and readers (if the *Network* window is not open, open it by typing *CTRL-N* or by picking *Network* from the *View* menu); see page 31 for more about the *Network* window.

Users: This choice is only here if you have the *Users* window open. This makes the *Users* window the active window (if the *Users* window is not open, open it by typing *CTRL-U* or by picking *Users* from the *View* menu); see page 71 for more about the *Users* window.



Help Menu

Instead of going to the *Help* menu, you can press *F1* from any screen in HandNet. This takes you to help for the screen you are on. If you need help on something else, you can use the *Contents*, *Index*, or *Search* tabs at the left of the window to find what you need.



Help Topics: This brings you into the help for HandNet. The *Help* menu contains the same information as this manual, but it lets you more easily search and jump from topic to topic; see page 3.

About HandNet for Windows: This brings up a screen with copyright information, the Version of the program, the product serial number, and the name of the person or company the product is licensed to (unless you need to give your serial number or the program Version number to one our support representatives, or unless you need to check to see if you are licensed to use all the features of the program, you probably will not need to come to this screen).

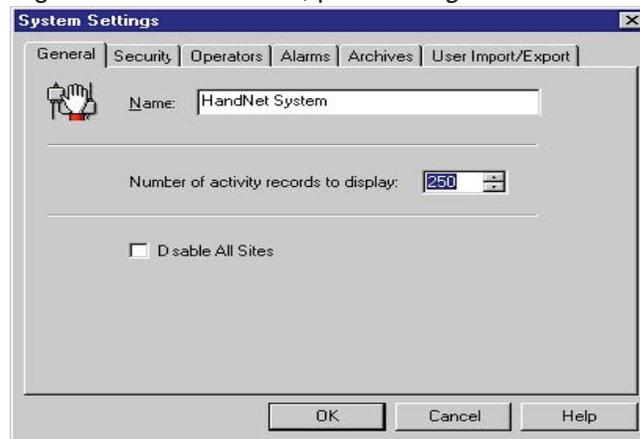
* * * * *

System Wide Settings

Settings on the *View* menu lets you control setup issues that are not related to specific sites or readers. This includes the name of the system, what user changes should be allowed at readers, who can use Handnet, which messages trigger alarms, when old messages should be archived, and settings for importing and exporting users.

General System Settings

To get to the *General* tab, pick *Settings* from the *View* menu.



Name of System

Name: This shows the name that appears above the list of sites in the *Network* window.

Amount of Activity to Show

Number of Activity Records to Display: This shows how many of the most recent activities to list in the *Activity* window. HandNet stores activities even after they are no longer listed in the *Activity* window; those that are no longer shown are still stored and still included if you print a report.

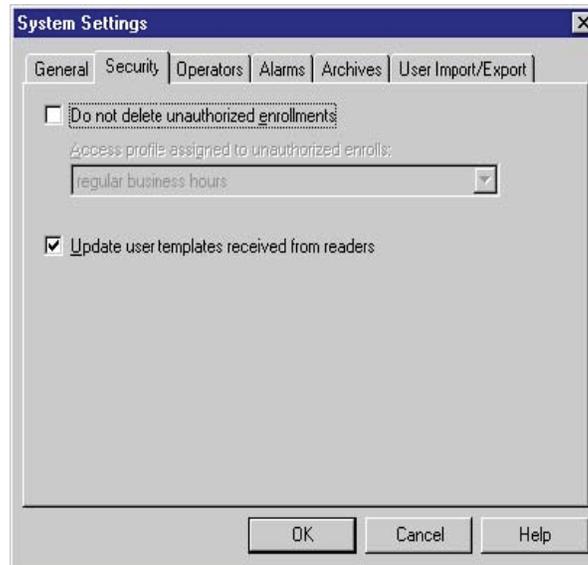
Disable All Sites

Disable All Sites: Check this box if you need to quickly prevent HandNet from trying to communicate with any site. You might check this if you were servicing a number of sites at once.

* * * * *

What User Changes Can Come from Readers

To get to the *Security* tab, pick *Settings* from the *View* menu, and then click the *Security* tab.



Whether Users can be Added at the Reader

Do not delete unauthorized enrollments: When this is not checked (HandNet's initial setting) you can only add new users in HandNet; you cannot add a new user directly at the reader (you can add a user at a reader if the user is in HandNet so you can enroll the user, but if you add a user at the reader that has not been added in HandNet, HandNet will delete the new user). If you want to be able to add and enroll a new user at a reader without adding the user in HandNet first, check this box. If you allow this, and if you add a new user from the reader, the user will be given the access profile selected in the entry below (you can change the access profile on the *Security* tab in *User Properties*; see page 92).

Access profile assigned to unauthorized enrollments: Indicate what access profile should be given to a user who is added at a reader (if you do not want the user to be able to access any readers until you change them in HandNet, choose *Never*).

Whether to Revise the Stored Images of Users' Hands

Update user templates received from readers: When you enroll a user, HandNet stores a template that contains information about the shape of the user's hand. If this box is checked, then each time a user gains access, HandNet updates this template. This means that if the user's hand changes gradually (for example, if the user gains or loses a significant amount of weight over time), the image of the user's hand in HandNet will automatically be gradually adjusted as well. If there are gradual changes, checking this prevents users from having access problems as their hands become increasingly different from the original image. If you do not check this, then readers will always compare the user's hand to the original image created when you enrolled the user. We recommend having this checked.

* * * * *

Who Can Use HandNet

The *Operators* tab lists those people who are authorized to use the HandNet program. When you click *Add* or *Edit*, the program brings up the *Operator Definition* box where you control which tasks the operator is allowed to do in HandNet.

To get to this screen, pick *Settings* from the *View* menu, and then click the *Operators* tab.

Adding or Changing an Operator

You see this box when you add or edit an operator. It has the name and password the operator must use to log into HandNet. The boxes that are checked control which types of activities the operator can do.

Name: Enter the name that the operator will enter on the *Login* screen; see page 4. If the operator is also a user in HandNet (so s/he can gain access through readers), the name you enter here does NOT have to be the same as the name in *User Properties*.

Password: Enter the password that the operator will enter on the *Login* screen. Passwords are NOT case sensitive. For example, if the password is *narnia*, *Narnia* and *NARNIA* would work identically.

Access Rights: Check the corresponding boxes to determine which tasks the operator can do in HandNet. When you add a new operator, all of the boxes are unchecked; unless you check them, the operator will be able to do little more than look at information on the screen.

Click OK to save your changes and return to the list of operators.

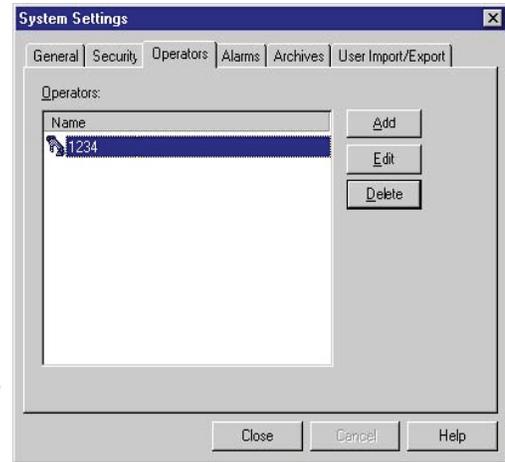
Which Options the Operator Can Use

Deleting an Operator

To delete an operator so that person will no longer have access to HandNet, click the operator in the list and click *Delete*. HandNet does NOT ask you to confirm this deletion, so make sure you have highlighted the right operator before you click delete.

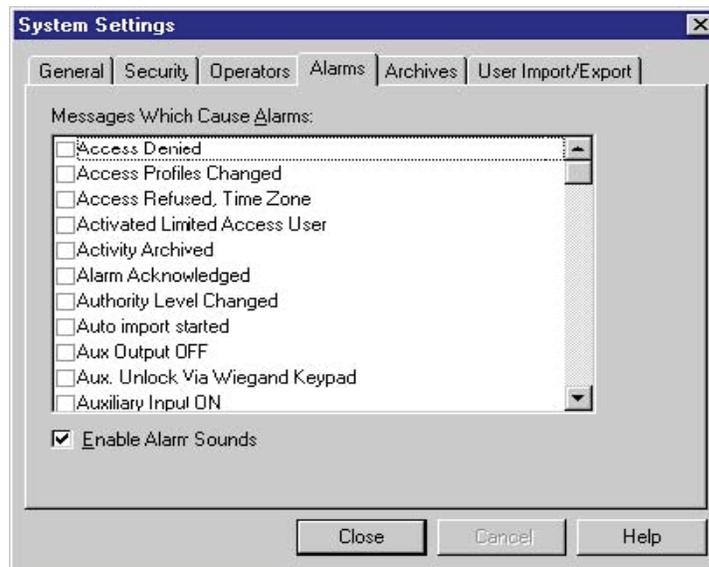
If the operator is also a user and if you do not want the user to have access to readers anymore, you must also delete the person from the user list.

* * * * *



Which Messages Trigger Alarms

The *Alarms* tab controls which activities generate alarms in HandNet. To get to this screen, pick *Settings* from the *View* menu, and then click the *Alarms* tab.



Messages That Cause Alarms

Messages Which Cause Alarms: Check each message that should generate an alarm. What you check here only determines what triggers an alarm in the HandNet program; if you are connected to an auxiliary or external alarm system, actions that trigger external alarms are controlled by the *Auxiliary (AUX) Settings* (see page 48) and *Extended Setup* (see page 51) tabs in *Reader Properties*.

Alarms Sounds

Enable Alarm Sounds: If this is checked, then when an alarm situation occurs, a loud, siren-like alarm sound will begin and continue until you acknowledge the alarm. If this is not checked, when an alarm situation occurs, you will see a red flashing message at the bottom of the screen but will not hear any sound.

* * * * *

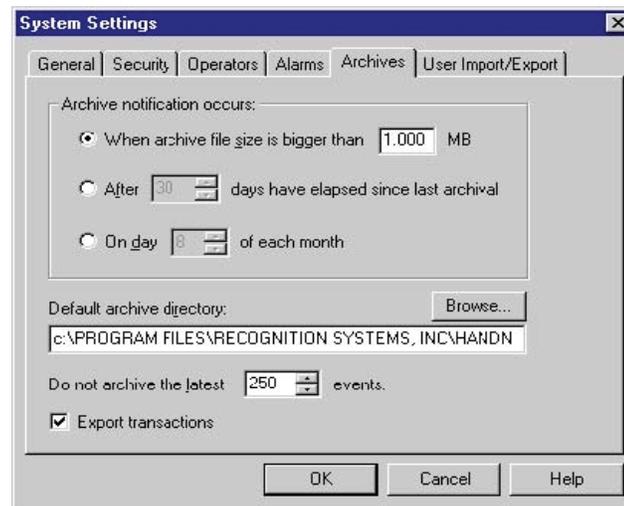
When Past Activity Gets Archived

What Archiving Is

Archiving is moving past activity from the current activity file to a separate file. This keeps the activity file smaller and faster while still keeping the information available for reports if needed. The *Archive* tab controls when HandNet reminds you to archive past activity, where it will make the archive file if you do not choose another location, and the minimum amount of activity to keep available in the current activity file.

You can make an archive at any time use *Archive* on the *File* menu; see page 113.

To get to the *Archives* tab, pick *Settings* from the *View* menu, and then click the *Archives* tab.



When HandNet Reminds You to Make and Archive

Archive Notification Occurs: This controls when HandNet reminds you to make an archive.

When archive file size is bigger than... reminds you only when there is enough activity for the archive file to reach the size you enter. How long it will take depends on the amount of activity.

After ___ days... reminds you make an archive on a regular basis regardless of the amount of activity during that period. For example, if you wanted to make an archive once a year, you could select this option and enter 365 for the number of days.

On day ___ of each month reminds you make an archive once a month. If you want to include all activity from a particular month in the archive, and you also want to keep a number of days worth of recent activity available in the activity window, then you might want to do this later than the first of the month and change the *To* date to the last day of the previous month when you make the archive. For example, if you wanted to keep activity from the past week in the current activity, then you might not make your monthly archive until the 8th of the month. That way, when you have made your archive through the end of the previous month, the past week would still be in the current activity.

Default Archive Directory: This shows the drive and directory (folder) that is automatically filled in for the file location when you make the archive. This is initially set to the same folder that the HandNet program is in, but you can change this if you wish.

What NOT to Archive

Do Not Archive the Latest ___ Events: This indicates how many events or activities to keep in the current activity file. You can choose from 1-500. When you make an archive, HandNet this number of the most recent events in the activity file. If you want to keep more events than this in the current activity file, you can do this when you make the archive by changing the *To* date. For example, if you always wanted to keep at least the activity for the past week, when you make the archive, you could set the *To* date a week in the past.

Exporting Activity When Archiving

Export Transactions: If you check this, then whenever you make an archive, HandNet exports all the transactions being archived to an access database file called *expactvt.mdb* (you can also export transactions with *Export Activity* on the *File* menu; see page 115). While the main HandNet database files are password protected for security reasons, this file is not. This lets you create custom activity reports using the activity from HandNet using external report generating tools. If you are only going to generate reports with *Activity Reports* on the *File* menu, you do not need to check this box; doing so would only create a file that you do not need.

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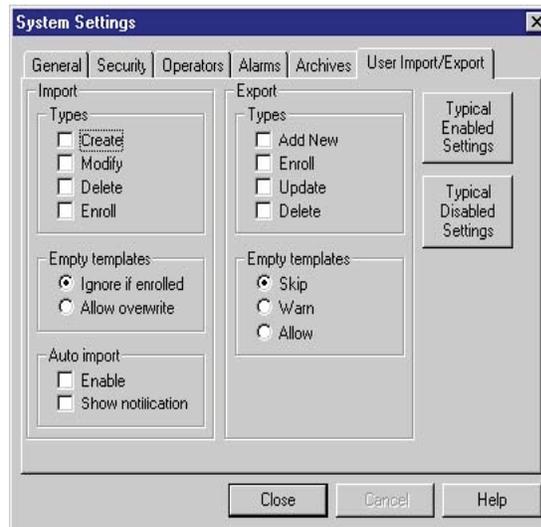
When Users Get Imported and Exported

User Import/ Export Tab

The *User Import/Export* tab is only available if you have purchased the upgrade to the full feature set of Version 2.0.

This tab controls what user information is imported and exported, and whether imports are automatic or manual. You only need this tab if you have readers connected to several different computers (each with its own copy of HandNet) and if users added to one system to be available on the others. If all of your readers are connected to a single copy of HandNet, you do not need this feature.

To get to this screen, pick *Settings* from the *View* menu, and then click the *User*



Setting Up for Common Situations

Import/Export tab.

If all of your readers are connected to a single copy of HandNet: You do not need this feature. Click the *Typically Disabled Settings* button to make sure that the import and export features are both turned off.

If you have HandNet running on several computers and you want to be able to add, change or delete users from any of those computers: Click the *Typically Enabled Settings* button to turn both the import and export features on.

If you have multiple computers with HandNet but you only want users added, changed, deleted, or enrolled on this computer: Check the *Enroll*, *Update*, and *Delete* boxes in the *Export* column, and uncheck all of the boxes in the *Import* side of the screen. This causes HandNet to export users but prevents changes from elsewhere from being imported.

If you have multiple computers with HandNet but you only want users added, changed, deleted, or enrolled on another computer: Check the *Create*, *Modify*, *Delete* and *Enroll* boxes in the *Import* column, and uncheck all of the boxes in the *Export* side of the screen (you can also enable *Auto Import* if you wish). This keeps HandNet from creating an export file that you do not need, and enables it to import changes from another computer.

Import Settings

Types: This controls what user information HandNet will import. Make sure that you select the correct choices here before you try to import. When HandNet imports, it empties the *Import* file, discarding those user records that do not meet the conditions you have checked here.

Create: If this box is checked and HandNet finds a new user in the *Import* file, HandNet adds that user to your database. If this box is not checked, HandNet will not import any new users.

Modify: If this box is checked and HandNet finds a user in the *Import* file with the same ID number as a user that you already have, HandNet replaces the information for the user you have with the user in the *Import* file. If this box is not checked and HandNet finds a user in the *Import* file with the same ID number as a user that you already have, HandNet will not change the user that you have. If you do not have this checked, you could end up with different information for a user on different computers.

Delete: If this box is checked and HandNet finds a user marked for deletion in the *Import* file, HandNet deletes that user from your computer as well. If you do not have this checked, you could end up with users that are still on your computer that are not in the copies of HandNet running on the other computers.

Enroll: If this box is checked and HandNet finds a newly enrolled user in the *Import* file, HandNet imports the user and the template (image of the user's hand). If you do not check this, you will have to enroll new users on each computer where they are imported.

Empty Templates: If HandNet finds a user that is not enrolled in the *Import* file, and it finds a user with the same ID number that is enrolled, this entry controls what HandNet will do. *Ignore if enrolled* keeps the enrolled version of the user that you already have rather than replacing the user with the unenrolled user. *Allow overwrite* replaces the enrolled user with the unenrolled one; this means that the user will have to be enrolled again (to avoid this, on the computer that is exporting the users, do not check *Add New* on the *Export* side and make sure *Empty Templates* on the *Export* side is set to *Skip*. This way, users will not be exported until they are enrolled).

Auto Import:

Enable: If you check the *Enable* box, HandNet automatically imports users whenever it finds an *import.mdb* file in the HandNet directory. If this box is not checked, then HandNet only imports users when you pick *Import Users* from the *File* menu; see page 99.

Show Notification: If you check this box and the *Enable* box above is also checked, then when HandNet automatically imports users, it shows a message on the screen that lets you know that users are being imported. If you do not check this box, then HandNet just imports the users without popping a message up (either way, HandNet also records the activity in the *Activity* window). If the *Enable* box is not checked above, this entry does not apply.

Export Settings

Types: This controls what user information HandNet exports.

Add New: If this box is checked and you add a user, HandNet exports the user. Normally you do not want this box checked; you usually want HandNet to wait until the user is enrolled before exporting the user. If you have this checked, HandNet exports the unenrolled user.

Enroll: If this box is checked, then HandNet exports a new user after the user is enrolled.

Update: If this box is checked and change information for a user, HandNet exports the changed information. This can help keep user information the same on all of the computers.

Delete: If this box is checked and you delete a user, HandNet exports the fact that the user was deleted. If the other copies of HandNet are set up to import deletions, then the user will be removed from those computers as well.

Empty Templates: If you add or change a user that has not been enrolled yet, this controls whether or not HandNet will export it. Normally you only want HandNet to export users after they are enrolled, so you would leave this set to *Skip*.

“Typical” Settings

These buttons automatically check the appropriate options for two situations:

Typically Enabled Settings: This checks the appropriate boxes for a computer to be able to automatically import and export users.

Typically Disabled Settings: This unchecks all of the boxes; this is appropriate for any user who is not running HandNet on more than one computer.

See *Setting Up for Common Situations* on page 28 for more on common setups.

Getting Exported Users to Another Computer

See *Importing Users from Another Copy of HandNet* on page 99 for more on how to get the exported user information to the other computer so you can import them there.

* * * * *

Setting Up Sites and Readers

Seeing Sites and Readers in the Network Window

The *Network* window lists every site and reader that you have added in HandNet. To open this window, pick *Network* from the *View* menu or press *CTRL-N*.



The left pane lists all of your sites (that is groups of connected readers). The right pane lists all of the readers in the currently selected site (to list all readers for all sites, click *HandNet System* at the top of the left pane).

You see one of these icons to the left of each reader's name:

Understanding the Icons to the Left of the Name

	The green light indicates that this reader is currently connected and communicating with HandNet.
	The black dot indicates that HandNet communicates with this reader by modem, and HandNet is not currently connected with the reader (when HandNet connects with the readers in that site depends on what you have on the <i>Schedule</i> tab in <i>Site Properties</i>).
	The empty circle indicates that you have not enabled this reader. This is the case when you are setting a new reader up (you enable a reader on the <i>General</i> tab in <i>Reader Properties</i> . You must also enable the site on the <i>General</i> tab in the <i>Site Properties</i>).
	The red light indicates that there is a communication problem between HandNet and the reader. The reader may not be configured correctly, or there may be a problem with the way the reader is connected.

Changing How the Readers are Sorted

You can sort the list of readers using the information in any column by clicking on the column heading. For example, to sort the list alphabetically by name, click on the name heading. If you click on the same heading again, it will sort the list in reverse order; for example, using the name, it would sort from Z to A. You can also sort by address (this might be useful if you wanted to find the next available number for a new reader), by status (this could be useful to group all of the readers that are not enabled or that are having communication problems), or by site if you clicked *HandNet System* at the top of the site list to list all readers from all sites at once.

Rearranging or Resizing the Columns

To move any column, click the column heading and hold the mouse down. With the mouse held down, drag the column heading to the left or right (see the *User's window* in the online help for an example of this).

You can also change the width of a column by pointing to the edge of the column heading, holding the mouse down, and then dragging the edge of the column to the desired position. This lets you fit more columns in the window.

F5 restores all columns to the width they had when you started HandNet. If you want HandNet to save the new column widths, exit the HandNet program and come back in. HandNet then uses your changed column widths as the new standard or default.

* * * * *

Setting Up Sites, Overview

What a Site Is

In HandNet, a site refers to a group of up to thirty-two connected readers. Put another way, one reader is physically connected to the computer (by network, serial cable, or modem), and up to thirty-one additional readers can be daisy chained to that first reader; that is, a cable runs from the first reader to the second, another cable runs from the second to the third, and so on. We call this chain of readers a site. A site does not have any connection to a particular building or location; these readers could be in one building or in more than one building (if the buildings are close enough to run a cable from one to the other), and one building could have one or many sites.

You control access to each reader separately, so having readers with unrelated purposes in one site is fine; the site designation merely indicates that the readers are physically connected to each other.

There are two parts to setting up a site and readers: you must physically set the readers up and connect them to each other and to the computer, and you must add the site and readers in HandNet. This help only explains adding the site in HandNet. For help setting up and connecting the readers, see the manual that came with the readers.

Before You Enable a Site

If you have been using readers without HandNet and you want to get the users from the reader(s), follow these steps BEFORE enabling the site and reader:

1. Pick *Settings* from the *View* menu.
2. Click the *Security* tab.
3. Check the box by *Do not delete unauthorized enrollments* (see page 23 for more about what this option does; after you have gotten your users from the reader, you may want to check this box again).

If you enable both the site and the reader without changing this setting, HandNet regards all of the users in the reader as unauthorized (because they are not in HandNet yet) and deletes them from the reader. Once it deletes them, there is no way to get them back without adding and enrolling the users again.

* * * * *

Adding or Changing a Site

Adding a Site in HandNet	
Q U I C K S T E P S	1. Click <i>Site</i> on the main menu bar at the top of the screen, and then pick <i>Add Site</i> . This starts the <i>New Site Wizard</i> .
	2. Complete each screen and then click the <i>Next</i> button at the bottom of the screen. The screens that you see in this process vary depending on whether the site is connected to the computer by a serial cable, through a network, or by a modem.
	3. On the final screen, indicate whether to enable site If the site is physically set up and connected: Enable the site now. Check the <i>Enable Site</i> box and then click <i>Finish</i> . If the site is not physically set up yet: Enable the site later. To do this, you will open the <i>Network</i> window, double-click the site in the left pane of the window to open up the site properties, check the <i>Enabled</i> box, and then click <i>OK</i> .

Adding a Site

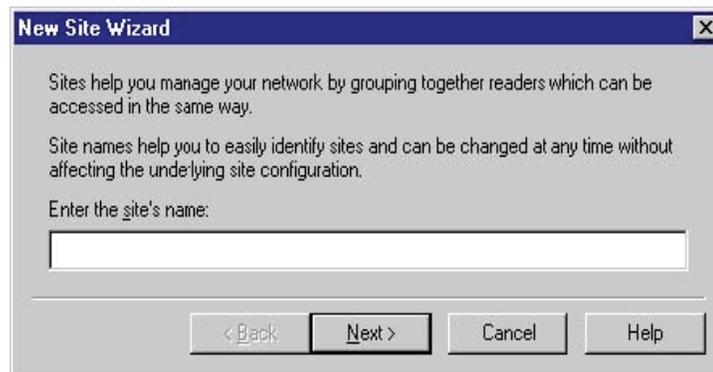
Click *Site* on the main menu bar at the top of the screen, and then pick *Add Site*. This starts the *New Site Wizard*.

Changing a Site

Click a site in the left pane of the *Network* window, pick *Properties* from the *Site* menu, and then click the tab with the information you need to change.

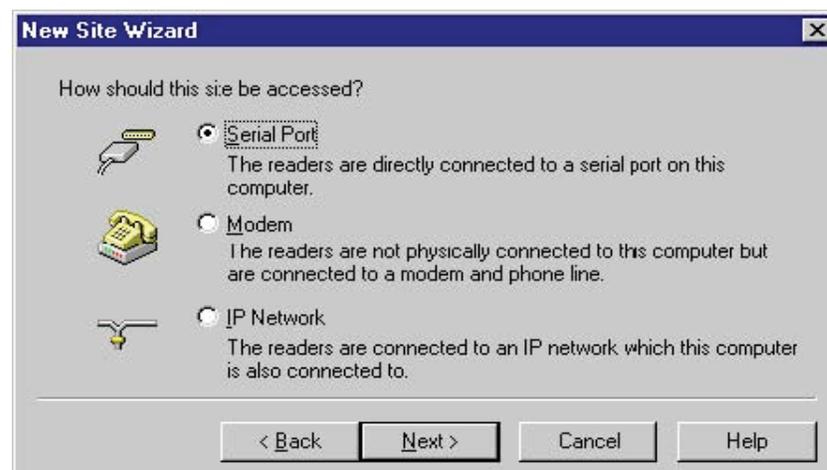
Name

This is the first screen in the process of adding a new site. Enter a name that identifies the site, and then click the *Next* button.



Type of Connection

When adding a new site, this screen lets you indicate how HandNet will communicate with the site.



Serial Port: To connect to a site by running a cable from your computer to the reader, you must have a free serial port on your computer. See the HandKey manual for more on the requirements for the cable. This first reader must have an address of zero (and no other reader in the site can have an address of zero).

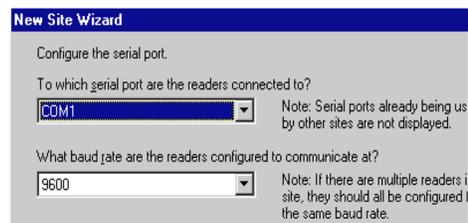
Modem: To connect to a site by modem, the first reader in the site must have a modem installed in it (contact your dealer for more information). This first reader must have an address of zero (and no other reader in the site can have an address of zero).

IP Network: To connect to a site through your network, you must have a TCP/IP network with static IP addresses. Your computer must have a network card and be connected to the network. If the network is faster than 10baseT, you must have a switching hub. The first reader in the site must have an ethernet card (contact your dealer for more information). This first reader will automatically have an address of zero (no other reader in the site can have an address of zero), and you must enter a unique IP address in the reader; see *Configuring the Physical Reader* on page 54 for more detail on this.

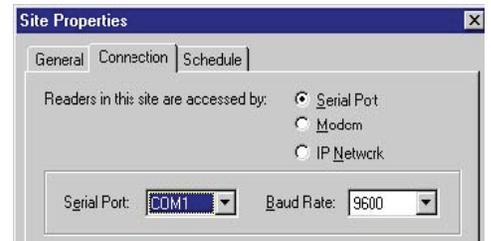
Serial Port Connection

To connect to a site by running a cable from your computer to the reader, you must have a free serial port on your computer; see the HandKey manual for more on the requirements for the cable. This first reader must have an address of zero (and no other reader in the site can have an address of zero).

when adding a new site



when changing a site



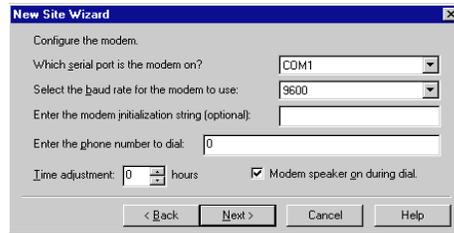
Serial Port: Click this and pick the serial port that the cable from the reader is connected to. If you pick the wrong port here, HandNet will not be able to communicate with the reader. If you have several sites, each must be connected to a different serial port. HandNet only lists ports set up on your computer that are not already used for communicating with another site. If you click this and get a blank list, all of the serial ports are already used. Contact the person who services your computer hardware if you need to add additional serial ports.

Baud Rate: Click this and pick the baud rate, we recommend 9600. While 19200 should theoretically be faster, because of the way the reader sends information, this does not result in any real gain. The speed here must match the speed set in the reader; see *Configuring the Physical Reader* on page 54 for more detail on how to change the baud rate in the reader.

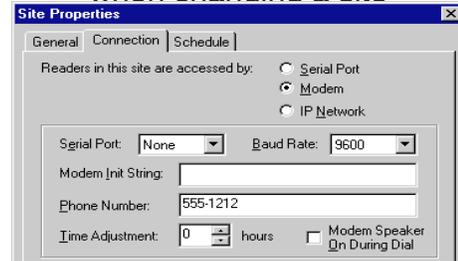
Modem Connection

To connect to a site by modem, the first reader in the site must have a modem installed in it (contact your dealer for more information). This first reader must have an address of zero (and no other reader in the site can have an address of zero).

when adding a new site



when changing a site



Serial Port: If you have an external modem, click this and pick the serial port your modem is connected to; this is usually (but not always) *COM1* or *COM2*. If you have an internal modem, it is usually connected to *COM3* or *COM4*. HandNet only lists ports that are set up on your computer and that are not already used for communicating with another site.

Baud Rate: Choose 9600 if you are connecting to a HandKey II or HandKey CR; choose 2400 if connecting to a HandKey.

Modem Init String: If you need HandNet to send any commands to the modem before dialing, enter the appropriate codes here. The modem must be set up for no data compression, no error correction, an appropriate baud rate, and auto answer. The manual that came with your modem explains the various commands that work with your modem. An inappropriate init string can prevent the modem from connecting. Try connecting without any init string to see if you can communicate; your modem may be automatically set up correctly. If you have problems getting your modem to connect and communicate with the site, here are init strings that have worked for some modems:

Typical Modem Strings		AT&F&C1&D2X1V1E0 AT&C1&D2X1V1E0 AT&C1X1VE0
Rockwell Chip Set Modems		AT&D2E0&Q0N0S37=5
US Robotics Sportster 14.4 F/M		AT&F0 AT&FX0&C1&D2&H0&N6&K0S0=0
Everex 2400E		AT&F
Hayes Accura 14,400	1200 Baud	AT&F&C1&D2&K0S0=0S37=5
	2400 Baud	AT&F&C1&D2&K0S0=0S37=6
Hayes Optima 14,400	1200 Baud	AT&F&C1&D2&K0S0=0S37=5
	2400 Baud	AT&F&C1&D2&K0S0=0S37=6
Practical Peripherals PM144MTII	1200 Baud	AT&F&C1&D2&K0S0=0S37=5
	2400 Baud	AT&F&C1&D2&K0S0=0S37=6
Practical Peripherals 14.4 FXSA	1200 Baud	AT&D2E0&Q0N0S37=5
	2400 Baud	AT&D2E0&Q0N0S37=6

Cardinal 33.6 V.34/V.FC	1200 Baud	ATE0S37=5&C1&D2&K0
	2400 Baud	ATE0S37=6&C1&D2&K0
Multitech Model MT1932ZPX		AT&F&C1&D2X1V1E0&E0&E3&E7&E8 &E10&E12&E14\$MB1200\$SB1200
Zoom Model cc4336	2400 Baud	AT&Q0&K0+MS=2

Phone Number: If you have to dial some digit to get an outside line, enter this digit followed by a comma before the phone number. If the number is a long distance number, enter the one and the area code as appropriate. For example, if you had to dial a nine for an outside line, and the number was long distance and required one and an area code, you would enter the number like this:

9, 1-802-555-1212

You do not have to enter the dashes; they do not make a difference. You could equally well enter the number above like this:

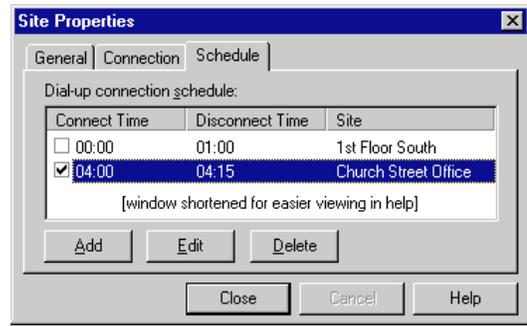
9,18025551212

Time Adjustment: If this site is in a different time zone, enter the number of hours the time difference is. For example, if you are in New York and were setting up a connection with a site in California, you would enter -3 since in California it is three hours earlier than in New York. If you are in California and setting up a connection with a site in New York, you would enter 3 since it is three hours later in New York. Only do this if you want all times reflecting the time zone you are currently in.

Modem Speaker On During Dial: If you check this box, when HandNet connects to this site, it turns the modem speaker on so you can hear it dialing and connecting. If there is a problem connecting, turning the modem speaker on can help identify where the problem is. Unless you are having a problem connecting, we do not recommend checking this box.

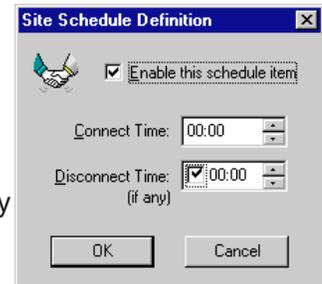
Scheduling a Connection Time

If you are connecting to sites by modem, this screen shows when HandNet is scheduled to connect with each site. You can only change the connection time for the current site (this screen does not apply if you are not communicating by modem; if you connect by serial port or through a network, HandNet stays connected to the site continuously and does not need a scheduled connection time).



Adding a New Scheduled Connection Time

When you choose to add a new schedule time, you see this screen:



Enable this schedule item: This box must be checked for HandNet to make the connection. Only uncheck this box if the modem is not set up yet at the site and you do not want HandNet to try to communicate with the site.

Connect Time: Enter the time that you want HandNet to try to connect. This must be at least one minute later than the disconnect time for the previous connection. For example, if another connection is scheduled to end at 5:00, the new connection can be scheduled for 5:01, but not for 5:00. If the phone lines are busy when HandNet tries to connect, it will keep trying until it makes a connection (or reaches the *Disconnect Time*).

Disconnect Time: If you uncheck this box, HandNet will stay connected to this site continuously. Since the modem will be continuously connected to that site, you will not be able to schedule a connection to any other site; if you need more than one connection, this must be checked. When you enter a disconnect time, it must be after the start time. For example, you cannot schedule a connection to both begin and end at 5:00; if the connection begins at 5:00, the disconnect time must be 5:01 or later.

When you enter the disconnect time, allow enough time for HandNet to download all of the potential activity in the reader. The reader can send about 100 events a minute. This means that if the reader were full (with 5000 events), it could take up to an hour to get all of the activity. The amount of activity you have each day and the number of times you connect to reader during the day determine how long your connection must be.

When HandNet reaches the disconnect time, it disconnects even if there is still activity that the reader needs to send. When HandNet disconnects, if the reader is not done sending activity, a few activities would be lost. If there is regularly more activity at the reader than the connection time allows for, the reader's memory would eventually fill up, at which point additional activity would also cause activity to be lost. To avoid this, make sure the time between the *Connect Time* and the *Disconnect Time* is long enough to get all of the activity.

Changing or Deleting a Scheduled Communication Time

Even though HandNet lets you see the scheduled connection times for all sites, HandNet only lets you change a scheduled time for the site with which you are currently working. To change a scheduled time for a different site, you must go to the properties for that site, select the scheduled time there, and then click the *Edit* button.

If You Get a Message that the Time Conflicts

If the time that you enter conflicts with the time that HandNet is already scheduled to communicate with a different site, you see a message like this:



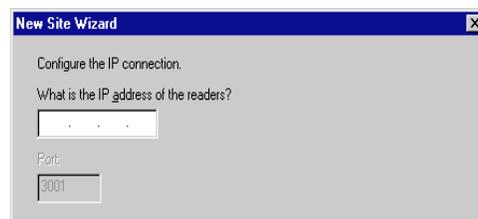
Make sure that each other scheduled connection has a disconnect time. If you schedule a connection with no end time, HandNet would never disconnect from that site, so it would not be possible to schedule another connection. If you want to have more than one scheduled connection, each connection must have a disconnect time.

Also make sure the connect time is at least one minute later than the disconnect time for the previous connection. For example, if another connection is scheduled to end at 5:00, the new connection can be scheduled for 5:01, but not for 5:00.

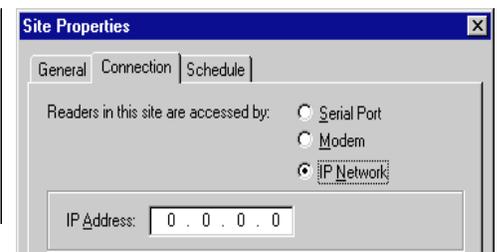
IP Address

You see this screen if you indicate that HandNet will communicate with this site through a network.

when adding a new site



when changing a site

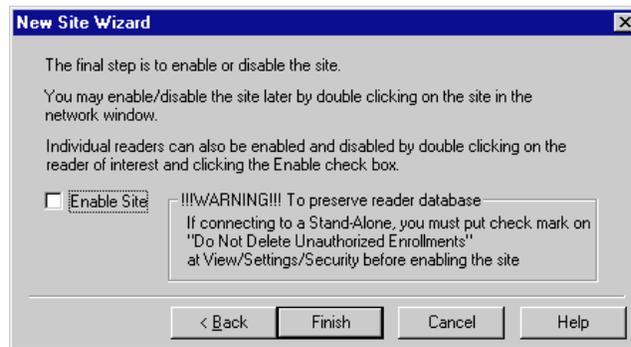


IP address: Each site must have a unique IP address. Ask your network administrator for an appropriate address. The address you enter here must match the address you enter in the reader; see *Configuring the Physical Reader* on page 54 for more on how to change the address in the reader.

Port: This entry no longer applies; it is always grayed out.

Enabling the Site

This is the final screen that you see in the *New Site Wizard* (when you go back to *Site Properties* to change this site, this is on the *General* tab).



Enable Site: You must enable the site before HandNet can communicate with the readers in it, but you might not want to enable it yet. Please read the sections below if you are not sure.

If the site is not physically set up yet

If the site is not physically set up yet, do not enable it; you do not want HandNet to repeatedly try to communicate with something that is not there. This would slow the system down.

If you have been using readers independently of HandNet and you need to get users from the readers

If you have been using readers independently of HandNet and if you want to get the users from the readers into HandNet, **you also do NOT want to enable the site until you have set HandNet to accept users from the reader that are not in HandNet.** To do this:

1. Click *Finish* without checking the *Enable Site* box.
2. Pick *Settings* from the *View* menu.
3. Click the *Security* tab.
4. Check the box by *Do not delete unauthorized enrollments* (see page 23 for more about what this option does; after you have gotten users from the reader, you may want to check this box again).

If you enable both the site and the reader without changing this setting, HandNet will regard all of the users in the reader as unauthorized (because they are not in HandNet yet) and it will delete them from the reader. Once it deletes them, there is no way to get them back without adding and enrolling the users again.

If you are ready to connect

If the site is physically set up and you do not need to get users from the readers (or if you have already changed the setting above), then you can enable the site now. Check the *Enable Site* box and then click *Finish*.

To Enable the Site Later

After you leave this screen, you can enable the site by doing this:

1. Open the *Network* window.
2. Double-click the site in the left pane of the window to open up the site properties (or click once and pick *Properties* from the *Site* menu).
3. Check the *Enabled* box and then click *OK*.

* * * * *

Setting Up Readers, Overview

There are two parts to setting up readers: 1) physically setting the readers up and connecting them to each other and to the computer; and 2) adding the site and readers in HandNet. This manual only explains adding the site and readers in HandNet. For help setting up and wiring readers, see the manual that came with the readers.

Before You Enable the Reader

Before you add readers, you must set up the site they are connected to; see page 34.

If you have been using readers without HandNet and you want to get users from the reader(s), follow these steps BEFORE enabling the site and reader:

1. Pick *Settings* from the *View* menu.
2. Click the *Security* tab.
3. Check the box by *Do not delete unauthorized enrollments* (see page 23 for more about what this option does; after you have gotten your users from the reader, you may want to check this box again).

If you enable the site and the reader without changing this setting, HandNet regards all users in the reader as unauthorized (because they are not in HandNet yet) and deletes them. Once it deletes them, there is no way to get them back without adding and enrolling the users again.

Selecting Readers

Most options on the *Reader* menu are disabled until you select a reader.

To select a single reader: Click that reader in the list.

To select multiple readers that are together on the list: Click the first reader in the group, hold the *SHIFT* key down, and click the last reader that you want to select.

To select multiple readers that are not together on the list: Click the first reader to select, hold the *CTRL* key down, and click each other reader that you want to select.

Renaming a Reader

You might rename a reader if you discovered that the original name was not clear or if you changed the purpose of the areas the reader gave access to. Renaming the reader does not change any of its properties and does not require you to set anything up again; it only changes the name that appears in the lists on the screen and in reports that you generate.

To rename a reader:

1. If the *Network* window is not open, pick *Network* from the *View* menu (or press *CTRL-N*).
2. Click the reader in the right pane of the *Network* window.
3. Pick *Rename* from the *Reader* menu (you could also right click and pick *Rename*, or you could double-click the reader and change the name in the *Reader Properties*).

* * * * *

Setting Up a New Reader

Adding a New Reader	
QUICK STEPS	1. Click <i>Reader</i> in the main menu bar at the top of the screen, and then pick <i>Add New</i> . This starts the <i>New Reader Wizard</i> .
	2. On the second screen of the <i>New Reader Wizard</i> , indicate whether you want to set the reader up by going through each configuration screen, or whether you want to copy the settings from another reader. Copy the settings from another if the settings are identical or even similar to the other reader (if you copy settings, you can use <i>Properties</i> on the <i>Reader</i> menu to make changes).
	3. If you are setting up the reader by going through each configuration screen, see the different tabs in the <i>Reader Properties</i> for help with particular entries. Click the <i>Next</i> button at the bottom of the screen to continue with the next screen.
	4. Make sure that the address in the reader matches the address you entered on the first reader properties screen; see <i>Configuring the Reader</i> for more details.
	5. Once the reader is physically connected and set up correctly, enable the reader. To do this, open the <i>Network</i> window, double-click the site in the right pane of the window to open the <i>Reader Properties</i> , check the <i>Enabled</i> box, and then click <i>OK</i> .

Getting Started

When you pick *Add New...* from the Reader menu, HandNet starts the *New Reader Wizard*. This takes you through the process of adding the reader.

Name and Address Screen

This is the first screen that you see when adding a new reader:

Enter the reader's name: Enter any name that clearly describes the reader's function and location. This name is used in the *Activity* window and in activity reports to identify where activity took place.

Choose the site where the new reader is located: Click this to pick the site (group of readers) that this reader is connected to. You must set the site up before you can add the reader.

This reader is physically configured for address: HandNet automatically fills in the first available address that has not been used yet in this site. For example, if you already have readers 0, 1, and 2 in this site, HandNet automatically fills in an address of 3. You can change this if you wish. The first reader in each site may be reader 0; other readers in the site can use any number up to 254. Readers do not need to be numbered sequentially. For example, your readers could be numbered 0, 1, 2, 3... or they could be numbered 0, 100, 110, 137... Within a site, each reader must have a

unique number. For example, you cannot have two readers in the same site that both use the address of 1. However, you can reuse numbers in different sites. For example, if you have twenty sites, you could have a reader with an address of 1 in each of them.

Make sure the address matches the address in the reader

The number here must match the address entered in the reader; see *Configuring the Physical Reader* on page 54 for more on how to set the address up in the reader.

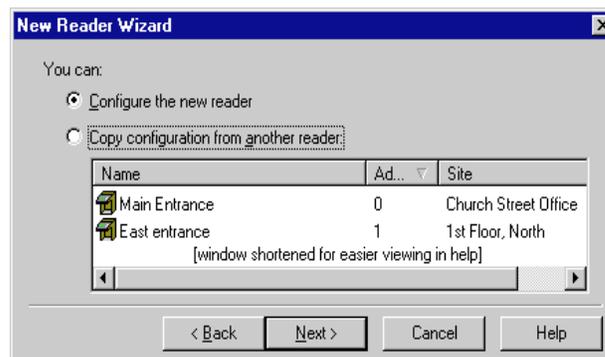
Never put more than 32 readers in a site

Even though HandNet allows numbers from 0 to 254, you should never have more than thirty-two readers in a site. While it is sometimes technically possible to connect more than thirty-two readers, not all readers support this, and even for readers that do, connecting more than this causes unacceptably slow response times from readers. The software was not designed to handle more than this, and we cannot guarantee results with more than thirty-two readers. If you feel that more than thirty-two readers in a single site is essential for you, please contact us to discuss your situation first; in nearly all cases, the preferable (and sometimes only) solution is to set up additional site(s).

Click *Next* to go on to the next screen. This button is disabled until you have filled in all of the entries on this screen.

Configuration

This is the second screen that you see in the process of adding a new reader. This screen lets you choose whether you want to set the reader up by going through each configuration screen in the reader properties, or whether you want to copy the settings from another reader. Copy the settings from another reader if the settings are identical or even similar to the other reader. If you copy the settings from another reader, and you want to make the settings slightly different, you can use *Properties* on the *Reader* menu to make changes; see page 45.



Configure the new reader: This lets you go through each of the *Reader Properties* screens so you can choose the appropriate settings on each. The *Reader Properties* screens are explained starting on page 45. You would choose this for the first reader you add. You would also choose this if you wanted very different settings from the other readers. For example, if other readers are set to trigger an auxiliary alarm after certain events and you do not want this reader to trigger an alarm, or if other readers have an automatic unlock time and you do not want that for this reader, then you might want to use this option.

Copy the configuration from another reader: If another reader has the same or nearly the same settings as you want for this reader, copying settings from the other reader is faster. It also protects you from accidentally

making the settings slightly different if you want readers configured exactly the same way.

If you choose this option, click the reader in the list to copy the settings from and then click the *Finish* button (the *Next* button changes to a *Finish* button when you choose this option).

When you copy the configuration from another reader, HandNet does NOT enable the reader. You must go to the *General* tab in the *Reader Properties* to enable the reader before HandNet will communicate with it; see page 45.

If you copy the settings from another reader, and you want to make the settings slightly different, you can use *Properties* on the *Reader* menu to make changes; see page 45.

* * * * *

Changing Reader Settings with Reader Properties

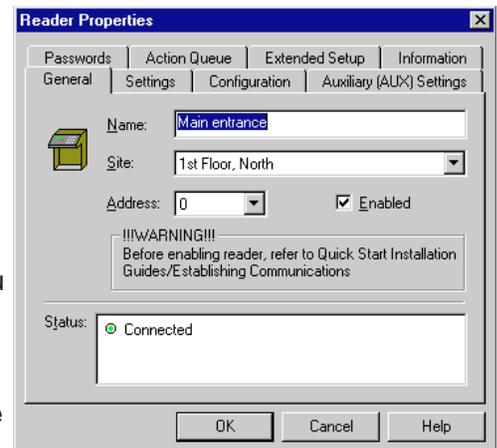
Getting to the Reader Settings

Click a reader in the right pane of the *Network* window, and pick *Properties* from the *Reader* menu (or just double-click the reader in the *Network* window). You are initially on the *General* tab; click any other tab to jump to the corresponding screen.

General

This screen contains the reader's name and address, the site the reader is a part of, and whether or not the reader is currently enabled and connected.

Name: The name is to help you identify the reader. Changing the name does not affect any of the reader's other settings or connection. If you change the name of the reader, the new name is used in activity reports for activity at that reader, even if the activity occurred before the name change.



Site: This is the site (that is, the group of up to thirty-two readers) that this reader is associated with.

Address: The number here can be from 0 to 254. If the site is connected by IP Network, the first reader in the site (the one with the ethernet card) must be reader 0. Other readers can use any number and do not need to be numbered sequentially. For example, your readers could be numbered 0, 1, 2, 3... or they could be numbered 0, 100, 110, 137.... You can use the same reader number in more than one site. For example, if you have twenty sites, you could have a *Reader One* in each of them.

The number here must match the address entered in the reader; see *Configuring the Physical Reader* on page 54 for more on how to set the address up in the reader.

Even though HandNet allows numbers from 0 to 254, you should never have more than thirty-two readers in a site. While it is sometimes technically possible to connect more than thirty-two readers, not all readers support this, and even for readers that do, connecting more than this causes unacceptably slow response times from readers. The software was not designed to handle more than this, and we cannot guarantee results with more than thirty-two readers. If you feel that more than thirty-two readers in a single site is essential for you, please contact us to discuss your situation first; in nearly all cases, the preferable (and sometimes only) solution is to set up additional site(s).

Enabled: This should be checked once reader setup is done and users should have access through the reader. Leave this unchecked if you do not want HandNet to try to communicate with the reader at this point.

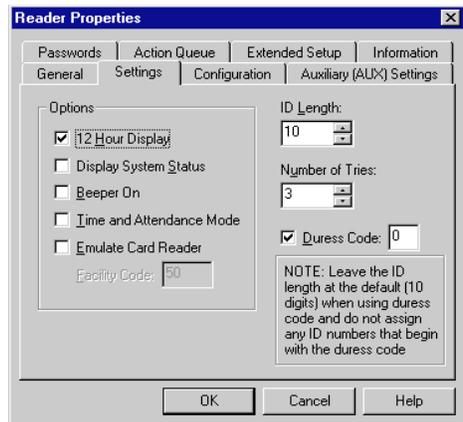
If you have been using readers without HandNet and you want to get the users from the reader, follow these steps BEFORE enabling the site and reader:

1. Pick *Settings* from the *View* menu.
2. Click the *Security* tab.
3. Check the box by *Do not delete unauthorized enrollments* (see page 23 for more about what this option does. After you have gotten your users from the reader, you may want to check this box again).

If you enable both the site and the reader without changing this setting, HandNet will regard all of the users in the reader as unauthorized (because they are not in HandNet yet) and it will delete them from the reader. Once it deletes them, there is no way to get them back without adding and enrolling the users again.

Status: This indicates whether the reader is connected.

This screen controls the reader's display and other factors that affect what happens when the user enter an ID number at the reader.



Settings

12 Hour Display: If you check this, the reader displays times after noon using the numbers one through twelve; if it is not checked, it uses twenty-four hour time. For example, if this is checked 5:00 PM displays on the reader as 5:00; if this is not checked, 5:00 PM displays as 17:00.

Display System Status: Do not check this option unless asked to by one of our support staff. This displays technical information on the reader display about the status of different aspects of the reader. It is not relevant to normal use of the reader.

Beeper On: If this is checked, the reader beeps each time you press a button on it; if this is not checked, the reader does not beep. In a high security setting, you might want the beeps off to make it harder for a casual observer to figure out how many digits are in the ID number. In other contexts, your choice here depends only on your preference; some people like the beeps since it lets them know that they have not missed the button; others prefer not to hear them.

Time and Attendance Mode: Do not check this option. If you check this, the reader asks users for additional information related to time and attendance tracking (whether one is coming in or out or leaving for a job, the job number you are working on, etc.). However, HandNet is currently NOT able to store or track this information.

Emulate Card Reader: If you want the readers to send output directly to a lock and unlock it, leave this unchecked. If you have an access control panel and want the reader to send information formatted like card output to that control panel, check this box.

Facility Code: This only applies if you are emulating a card reader.

ID Length: If all of your user IDs are the same length, you can enter the number of digits here so that users do not have to press *ENTER* or *YES* after typing the ID at the reader. For example, if all of your IDs are four digits long, then you could enter 4 here. Then, at the reader, once the user had entered four digits, the reader would ask the user to place the hand (assuming the ID was valid). Without this, the user would have to type the four digits and then press the *ENTER* or *YES* button on the reader. However, if you use a duress code (see below), do not enter a number here. This is because the duress code adds a digit; if your IDs are four digits, the user will have to be able to enter five digits if they ever need the duress code. If you are using a duress code, leave this set to ten.

Number of Tries: If a user enters a valid ID number but the user's hand does not match the image stored, the reader does not give access. This entry controls how many times the user can try to get access before the reader will block the user's ID and not allow further tries. This prevents someone from making repeated tries to gain access with someone else's ID number. Normally three is a good setting here; it allows for two retries if the user did not place the hand correctly, but limits the number of attempts someone can make.

If the user does not gain access after the number of tries here, the reader no longer accepts that user's ID until another user successfully gains access through that reader.

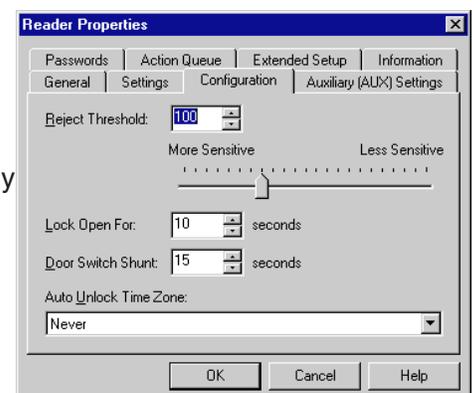
Duress Code: A duress code is single digit that users can enter before the ID number to indicate that they are in danger or that someone else is forcing them to open the door. For example, suppose that you set zero up as a duress code. If a user is being forced to let someone into the building, instead of entering the regular ID of 1234, the user would enter 01234. The system would still grant access as it would for the normal ID, but it would also trigger an alarm. This could be merely the alarm in the HandNet program, or, it could also trigger an external alarm through the *Auxiliary Settings*; see page 49.

Zero (0) is often a good digit for the duress code because you cannot begin a user ID with zero if you enroll users from the command menus on the reader (while HandNet distinguishes between 5 and 0005, the process of adding a user from the reader command menu does not. This means that if you create a user with an ID of 0005 in HandNet and try to enroll that user with the command menus on the reader, when you type 0005, the reader would think you were enrolling User Five. This would not correspond with 0005 in HandNet).

Configuration

This screen controls how closely the typical user's hand must match the image that is stored, how long the door can stay open, and when (if ever) the door should be automatically unlocked.

Reject threshold: The lower this number is, the more closely the user's hand must match the image or template of the hand stored in HandNet. Thirty



(the lowest possible number) requires the hand shape and position to match very closely; two hundred fifty (the highest possible number) will grant access if the hand match is close but not exactly the same. One hundred is good for most contexts; enter a lower number if you have an especially high security situation. You can either enter a number or drag the pointer.

If particular users have trouble placing their hands consistently because of arthritis or some other hand condition, you can override the reader's setting for an individual user on the *Security* tab in the *User Properties*; see page 93.

Lock Open For: This is the number of seconds the door stays unlocked once a user's hand is recognized.

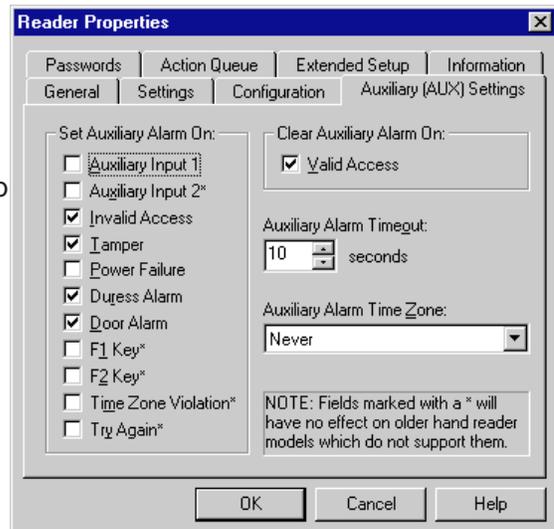
Door Switch Shunt: This is the number of seconds the door can be open before potentially triggering an alarm. The *Alarms* tab in *System Properties* (see page 25) and the *Door Alarm* on the *Auxiliary (AUX) Settings* (see below) and *Extended Settings* (see page 51) tabs control whether this causes an alarm.

Auto Unlock Time Zone: This controls when (if ever) the door is automatically unlocked. For example, you might want a door unlocked during normal business hours, and you might want the door to require hand recognition for access during other hours. You would set up a time zone that reflected the hours you wanted the door open and then pick that time zone here (see page 61 for more on setting up time zones). When you reached the start time, HandNet would unlock the door, and when you reached the end of the time zone, HandNet would lock it again. Leave this set to *Never* if you always want the door locked.

Auxiliary (AUX) Settings

Readers can communicate with auxiliary devices like alarms, lights, or security cameras. HandKey readers can communicate with one auxiliary device; this screen controls when and under what conditions output is sent to that device. HandKey II and HandKey CR readers can communicate with up to three auxiliary devices; this screen controls the output to the first; the *Extended Setup* tab (see page 51) controls output to the second and third.

To get to this screen, click a reader in the right pane of the *Network* window, pick *Properties* from the *Reader* menu, and then click the *Auxiliary (AUX) Settings* tab.



Set Auxiliary Alarm On: Even though this says *Set Auxiliary Alarm On*, the device does not have to be an alarm; this can trigger any type of auxiliary device. If a condition occurs and the corresponding box is checked, HandNet turns auxiliary output on if it is during the time zone selected at the bottom of the column on the right.

- Auxiliary Input 1:** This occurs if the reader receives input from an auxiliary input device. This is irrelevant if you do not have an auxiliary input device connected to the reader.
- Auxiliary Input 2:** This occurs if the reader receives input from the second auxiliary input device (HandKey II and HandKey CR support two auxiliary input devices; HandKey readers support just one). This is irrelevant if you do not have a second auxiliary input device connected to the reader.
- Invalid Access:** This occurs if someone repeatedly entered a valid ID at a reader, and each time the reader does NOT recognize the user's hand (at the reader, the user would see the message *ID Refused*, and the *Activity* window would show the message *Access Denied*). The number of times that a user can try before this occurs depends on the *Number of Tries* entry on the *Settings* tab in the *Reader Properties*; see page 47. If this occurs, someone might be trying to gain access with someone else's ID.
- Tamper:** This occurs if someone has shaken the reader roughly or opened the reader. Unless someone was servicing the reader, this message generally warrants further investigation.
- Power Failure:** This occurs if the reader loses power from an external source. While this could just be due to an ordinary power failure, sometimes someone trying to gain invalid access will cut power in an attempt to disable alarm systems.
- Duress Alarm:** This occurs if a user entered the duress code. This code indicates that the user is in trouble or that someone is forcing the user to give him/her access; see page 47 for more on setting up a duress code.
- Door Alarm:** This occurs if the door connected to the reader is forced open, or if the door is kept open for longer than allowed based on the *Door Switch Shunt Time* on the *Configuration* tab in the *Reader Properties*; see page 48.
- F1 / F2 Key:** This occurs if the corresponding key was pressed on the reader keypad (HandKey II and HandKey CR have F1 and F2 keys to the right of the number keys. The HandKey reader does not have these buttons, what you check here does not make any difference for that type of reader).
- Time Zone Violation:** This occurs if a user enters a valid ID at a reader, but the user is not authorized to have access during the hours or days of the week based on the time zone associated with the reader in the access profile.
- Try Again:** This occurs if a user enters a valid ID at a reader, but the reader does not recognize the user's hand (this situation causes the *Identity Unknown* message in the *Activity* window). This could be just the result of incorrect hand placement (if this happens repeatedly, HandNet generates the *Invalid Access* condition above.)

Clear Auxiliary Alarm On: If the auxiliary device is turned on, this controls whether it will be shut off when someone gains valid access (that is, enters a valid ID number and has his/her hand recognized). If this is checked, the alarm (or other auxiliary output) is turned off when a valid user gains access through that reader; if this is not checked, the output continues until the time entered in the following entry ends or until you go to the *Reader* menu, highlight *Auxiliary Output*, and pick *Off*; see page 129.

Auxiliary Alarm Timeout: This indicates the number of seconds that the auxiliary device should be on for.

Auxiliary Alarm Time Zone: This controls when HandNet should turn output to an auxiliary device on. For example, if the auxiliary device is a set of floodlights, it would only help to turn the lights on if the condition occurred at night. To do this, you would create a time zone for night hours, and then assign that time zone here (see page 61 for more on setting up time zones). If this says *Always*, HandNet turns output on for the auxiliary device whenever the checked condition(s) occur.

Passwords

This screen controls the passwords needed to access the menus available through entered command mode on the reader. Generally the passwords below are adequate since a user must be set up with the appropriate authority level on the *Security* tab in *User Properties* (see page 92), and the user must know how to get to these menus in the reader before the passwords below would do any good.

What is available on the different reader menus

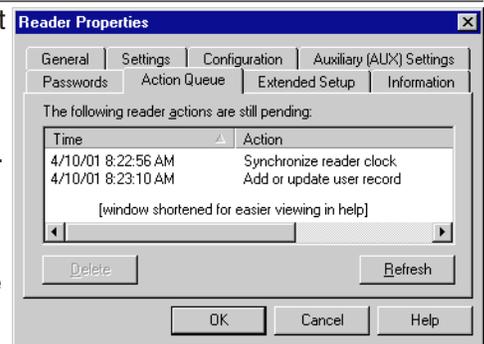
1. **Service:** This lets you recalibrate the reader and change the reader's status display.
2. **Setup:** This lets you control reader setup issues including how the reader is connected to your computer network, what language the reader displays in, the date/time, etc.
3. **Management:** This lets you list users.
4. **Enrollment:** This lets you add or remove users.
5. **Security:** This lets you control the passwords for the reader menus, change time zones, enroll users who do not need hand access, etc.

For more detail, see the reader manual.

Action Queue

If the reader is not connected to HandNet continuously (typically only the case if HandNet communicates with the reader by modem), this screen lists changes that have not been sent to the reader yet. These actions will be sent to the reader the next time the modem connects.

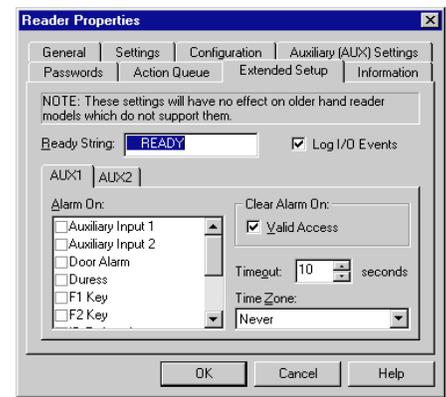
To get to this screen, click a reader in the right pane of the *Network* window, pick *Properties* from the *Reader* menu, and click the *Action Queue* tab.



If there is been a change that requires that certain actions NOT be sent to the reader, you can select those actions in the list and click *Delete*.

Extended Setup

Readers can turn auxiliary devices like alarms, lights, or security cameras on or off. HandKey II and HandKey CR readers can communicate with up to three auxiliary devices; this screen controls the output to the second and third auxiliary devices; the *Auxiliary (AUX) Settings* tab controls output to the first; see page 48. If you have a HandKey (instead of a HandKey II or HandKey CR), this screen does not apply since the HandKey only supports one auxiliary device.



Ready String: This is the text that appears in the reader display when the reader is ready and waiting for the user to enter an ID. For example, if you want the readers to read *Enter ID* instead of *Ready* you could change the text here. You can enter up to fourteen characters. If you want this text centered in the reader's display, add spaces before the text if needed.

Log I/O Events: This entry only applies to the HandPunch. We do not recommend connecting a HandPunch to HandNet. The HandPunch is used for tracking time and attendance, which is not what HandNet is for. If you do connect a HandPunch and this box is checked, the reader records all activity (including invalid access attempts, door alarms, accessing command mode on the reader, etc.); if you do not have this checked, the HandPunch only records successful accesses. If you have an ID3D HandKey, HandKey II, or HandKey CR, the reader records all activity regardless of whether this is checked or not.

AUX1/AUX2

Aux1 contains the settings for the second auxiliary device that can be connected to a HandKey II or HandKey CR reader; *Aux2* contains the settings for the third (the settings for the first are on the *Auxiliary (AUX) Settings* tab; see page 48).

Alarm On: Even though this says *Alarm On*, the device does not have to be an alarm; this could trigger any type of auxiliary device. If a condition occurs and the corresponding box is checked, HandNet turns auxiliary output on if it is during the time zone selected at the bottom of the column on the right.

Auxiliary Input 1: This occurs if the reader receives input from an auxiliary input device. This is irrelevant if you do not have an auxiliary input device connected to the reader.

Auxiliary Input 2: This occurs if the reader receives input from the second auxiliary input device (HandKey II and HandKey CR support two auxiliary input devices; HandKey readers support just one). This is irrelevant if you do not have a second auxiliary input device connected to the reader.

Door Alarm: This occurs if the door connected to the reader is forced open, or if the door is kept open for longer than allowed based on the *Door Switch Shunt Time* on the *Configuration* tab in the *Reader Properties*; see page 48.

Duress Alarm: This occurs if a user entered the duress code. This code indicates that the user is in trouble or that someone is forcing the user to give him/her access; see page 47 for more on setting up a duress code.

F1 / F2 Key: This occurs if the corresponding key was pressed on the reader keypad (HandKey II and HandKey CR have F1 and F2 keys to the right of the number keys. The HandKey reader does not have these buttons, what you check here does not make any difference for that type of reader).

Invalid Access: This occurs if someone repeatedly entered a valid ID at a reader, and each time the reader does NOT recognize the user's hand (at the reader, the user would see the message *ID Refused*, and the *Activity* window would show the message *Access Denied*). The number of times that a user can try before this occurs depends on the *Number of Tries* entry on the *Settings* tab in the *Reader Properties*. If this occurs, someone might be trying to gain access with someone else's ID.

Power Failure: This occurs if the reader loses power from an external source. While this could just be due to an ordinary power failure, sometimes someone trying to gain invalid access will cut power in an attempt to disable alarm systems.

Tamper: This occurs if someone has shaken the reader roughly or opened the reader. Unless someone was servicing the reader, this message generally warrants further investigation.

Time Zone Violation: This occurs if a user enters a valid ID at a reader, but the user is not authorized to have access during the hours or days of the week based on the time zone associated with the reader in the access profile.

Try Again: This occurs if a user enters a valid ID at a reader, but the reader does not recognize the user's hand. This could be just the result of incorrect hand placement (if someone repeatedly entered a valid ID at a reader, and each time the reader does NOT recognize the user's hand, this would generate the *Invalid Access* condition above).

Clear Auxiliary Alarm On: If the auxiliary device is turned on, this controls whether it will be shut off when someone gains valid access (that is, enters a valid ID number and has his/her hand recognized). If this is checked, the alarm (or other auxiliary output) is turned off when a valid user gains access through that reader; if this is not checked, the output continues until the time entered in the following entry ends or until you go to the *Reader* menu, highlight *Auxiliary Output*, and pick *Off*; see page 129.

Timeout: This indicates the number of seconds that the auxiliary device should be on for.

Time Zone: This controls when HandNet should turn output to an auxiliary device on. For example, if the auxiliary device are a set of floodlights, it would only help to turn the lights on if the condition occurred at night. To do this, you would create a time zone for night hours, and then assign that time zone here (see page 61 for more on setting up time zones). If this says *Always*, HandNet turns output on for the auxiliary device whenever the checked condition(s) occur.

Information

This screen contains information about the reader. A key piece of information

on this screen is the *Users Enrolled/Capacity*: this reflects the amount of available space in the reader. For example, the screen below reflects a reader with 498 users and space for up to 512 users. You could only add fourteen more users before this reader reached its limit. If you were approaching this limit, you would want to consider a memory upgrade for the reader so it would have space for additional users.

Most of the other information on this screen is helpful if your reader needs service, but not relevant to the ongoing use of the reader.

To get to this screen, click a reader in the right pane of the *Network* window, pick *Properties* from the *Reader* menu, and then click the *Information* tab.



* * * * *

Configuring the Physical Reader

While most of the information in the reader is controlled through HandNet, you must initially set up certain settings in the reader so it can communicate with HandNet. You do this through the command menus on the reader.

For readers with a network (ethernet) card: The IP address in this reader must match the *IP address on the Connection* tab in *Site Properties*; see page 39.

For a reader connected by serial port or connected as part of a chain of readers: The address in the reader must match the address on the *General* tab in *Reader Properties*; see page 45. The serial settings must also be correct, and the baud rate must match the baud rate on the *Connection* tab in *Site Properties*; see page 35.

We do not recommend changing any other settings through the reader command menus. All other settings can be controlled through *Reader Properties* in HandNet; see page 45 (if you were to make other changes directly in the reader, these would be overridden by the settings in HandNet when you enabled the reader).

Getting to the Setup Menu in the Reader

1. Enter command mode on the reader:

If you have a HandKey II or HandKey CR reader: Press *CLEAR*, and then press *ENTER*.

If you have an ID3D HandKey reader: Press # AND * (you can press them at the same time, or one after the other).

If you have not used the reader with HandNet before, or if you have used it with HandNet and cleared its memory, the display looks like this.



ENTER PASSWORD

Type the password for the setup menu and press *ENTER* or #. If you have not changed it, the password is two (2).

If you have previously used the reader with HandNet and are reconfiguring it for another site or location, you may see:



READY:
*:

If the display looks like this, type your user ID and press *ENTER* or #. The reader will ask you to place your hand. Once you place it, you should then see the *Enter Password* display shown above. Type the password for the *Setup* menu and press *ENTER* or #. If you have not changed it, the password is two (2).

Changing the Reader Address

You must set the address in readers that are connected to the computer by a serial cable, and in readers that are connected to another reader (that is, readers that are not the first reader in the site). You cannot change the address in a reader that has an ethernet card; these readers automatically have an address of zero (0).

The following steps are specific to the HandKey II and CR; the menus are slightly different in other readers. Please see the manual that came with the reader if you are not sure how to find the correspond settings in your reader.

1. If you have not already done so, follow the steps on page 54 for getting to the reader setup menu.
2. Press the *** / *NO* button until the display looks like this:

```
SET ADDRESS
* NO   YES #
```

3. Press the *#* / *YES* button. The display will look like this:

```
RDR ADD ID 1
NEW?:
```

4. Type the new address. The address you enter must match the address on the *General* tab in *Reader Properties*; see page 45. Press *YES* or *ENTER*. The display returns to:

```
SET ADDRESS
* NO   YES #
```

5. If you are done changing settings, press *CLEAR* to leave the *Reader Command* menu. If you need to change others settings, press *NO* until you get to the next setting you need to change.

Changing the Serial Settings and Baud Rate

You must have appropriate serial settings and baud rate in readers that are connected to the computer by a serial cable, and in readers that are connected to another reader (that is, readers that are not the first reader in the site). These settings do not apply to a reader with an ethernet card.

The following steps are specific to the HandKey II and CR; the menus are slightly different in other readers. Please see the manual that came with the reader if you are not sure how to find the correspond settings in your reader.

1. If you have not already done so, follow the steps on page 54 for getting to the reader setup menu.
2. Press the *NO* button until the display looks like this:

SET SERIAL
* NO YES #

3. Press the *YES* button. The display will look like this:

SET RS-485/422?
* NO YES #

4. Typically you will answer *YES* here. The display now asks for the baud rate. The baud rate here must match the rate on the *Connection* tab in *Site Properties*. Generally 9600 is appropriate.

If you have a HandKey II or HandKey CR:

The display will show the baud rate:

SET RS-485/422?
* NO YES #

To accept the rate shown and continue, press *YES*. To change the rate, press *NO* to cycle through the choices until you find the one you want.

If you have an ID3D HandKey: The baud rate is represented by a code:

baud rate	code	baud rate	code
38.4K	0	2400	4
19.2	1	1200	5
9600	2	600	6
4800	3	300	7

For example, for 9600, you would enter the code of two (2).

5. The reader will display:

SET RS-232?
* NO YES #

Unless you have a printer connected directly to the reader, you would typically answer *NO* here. If you have a printer directly connected to this reader, answer *YES* (most users working with HandNet print from HandNet rather than connecting a printer directly to the reader). The only other time you might say *YES* here was if you had a single reader connected directly to HandNet with a serial port; there is a way to wire the connection to use RS-232 (if this were the case, you would say *YES*, pick the appropriate baud rate, and then indicate that RS-232 was connected to 1-Host (that is, HandNet)).

6. Once you are done, you see the *Set Serial* display again:

SET SERIAL
* **NO** **YES #**

7. Press *CLEAR* to leave the command menu.

Changing the IP Address in a Reader with an Ethernet Card

You must set the IP address in a reader with an ethernet card. Before you do this, get the appropriate IP address and gateway (if needed) from your network administrator. If you have a WAN (wide area network), you also need the subnet mask; only certain subnet masks are supported; see the table below.

1. If you have not already done so, follow the steps on page 54 for getting to the reader setup menu.
2. Press the *NO* button until the display looks like this:

SET SERIAL
*** NO YES #**

3. Press the *YES* button. The display will look like this:

IP ADDRESS
000.000.000.000

If the display says *Set RS-485/422?* at this point, the reader does NOT have a network card. Contact your dealer if you need to get one.

4. Quickly type the correct address; if you pause for more than about four seconds while entering the IP address, the reader advances to the next display without saving your change. The address will have four parts separated by periods. Enter each part as three digits; if one part has less than four digits, add zeros before that part of the number to make it three digits. You do not have to enter the periods. For example, if your administrator gave you the address 192.9.210.10, you would enter:

192 009 210 010

This address must match the IP address on the *Connection* tab in *Site Properties*; see page 39. Press *YES* or *ENTER*. The display will now look like this:

GATEWAY
000.000.000.000

5. If your network administrator has told you to enter a gateway, do so; otherwise press *YES* or *ENTER*. As with the IP address, if you change this, you must type fairly quickly; if you pause for more than about four seconds while entering the gateway, the reader advances to the next display without saving your change. Once press *ENTER*, you see:

HOST BITS: 0
NEW?

6. If you are communicating over a LAN (local area network), type zero (0) for the Host Bits and press *YES* or *ENTER*. If you have a WAN, enter the number from the table below that corresponds to your subnet mask (only the subnet masks listed are currently supported). If you are not sure, check with your network administrator.

For this subnet mask:	Enter this for the host bits:	For this subnet mask:	Enter this for the host bits:
255.255.255.255	0	255.255.224.0	13
255.255.255.254	1	255.255.192.0	14
255.255.255.252	2	255.255.128.0	15
255.255.255.248	3	255.255.0.0	16
255.255.255.240	4	255.254.0.0	17
255.255.255.224	5	255.252.0.0	18
255.255.255.192	6	255.248.0.0	19
255.255.255.128	7	255.240.0.0	20
255.255.255.0	8	255.224.0.0	21
255.255.254.0	9	255.192.0.0	22
255.255.252.0	10	255.128.0.0	23
255.255.248.0	11	255.0.0.0	24
255.255.240.0	12		

7. The reader will display:

9600 BAUD * NO YES #

The speed you choose should match the baud rate you are setting in the rest of the readers in this site. Generally 9600 is appropriate. To accept the rate shown and continue, press *YES*. To change the rate, press *NO* to cycle through the choices until you find the one you want.

Once you press *YES*, the reader display returns to:

SET SERIAL * NO YES #

8. If you missed one of the settings because the reader display changed too quickly for you, press *YES* to go through the settings again. If you are done changing settings, press *CLEAR* to leave the command menus.
9. If you need the changes to take effect immediately, disconnect the power from the reader, wait a few seconds, and then connect the power again. This resets the reader. If you do not do this, it may take up to six minutes for the changes to take effect.

* * * * *

Resending Information to a Reader

Why You Might Need to Resend Information

While HandNet automatically sends the appropriate information to readers, occasionally you will need to use this when correcting a problem with a reader. You can do this with *Download* on the *Reader* menu.

Getting to the Download Option

To do this, select one or more readers, and go to the *Reader* menu, click *Download*, and then click the type of information to send.



Time: This sends the current time from the computer to the selected reader(s). You typically only need to use this option if the time changed (for example, for Daylight Savings Time). You can select all of your readers and send the time to all of them at once, or you can select specific readers.

Time Zones: This sends time zone and holiday information to the selected reader(s). You need to download this information if you change *Time Zones* (page 61) or *Holidays* (see page 65).

Setup: This sends configuration information to the selected readers. In most cases this is done automatically.

Users: After adding users, you need to download them to the hand readers so the readers will recognize the new users. This sends all current users to the selected readers.

All: This sends *Time*, *Time Zones*, *Setup*, and *User* information to the selected reader(s). You would use this when you set up a new reader so the reader had all the needed information.

Confirming That You Want to Send Information to the Reader

Whenever you choose to download information to readers, HandNet asks you to confirm that you want to download to the selected reader. Click *YES* to continue.

* * * * *

Settings That Control User Access

Setting Up Time Zones

What Time Zones Are

Time zones are periods of time on different days of the week when users can have access. There is no connection between what we call time zones in HandNet and the time zones we usually think of that have to do with different times around the world. This does not have anything to do with Eastern, Central, Mountain, or Pacific time; it only has to do with controlling which hours of the day access is available through readers.

When You Need to Set Up Time Zones

If you want some users to be able to use certain readers only during certain hours or on certain days of the week, time zones let you identify when access is available. For example, suppose some users should only be able to gain access through certain readers between 8:00 AM and 5:00 PM, Monday through Friday. You would create a time zone that identified these times and days, associate that time zone with appropriate readers using an access profile, and then assign that access profile to the users. After you did this, users with that access profile would only have access during the times you identified in the time zone.

You can also use time zones to determine when certain doors should be automatically unlocked; see *Automatically Unlocking a Door on a Scheduled Basis* on page 128.

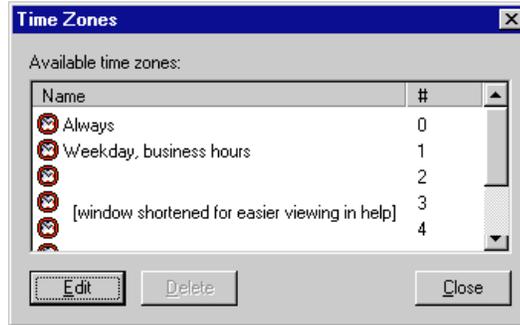
If users should have different access on holidays than on other days, you can set different hours for holidays in the time zone. You will have to also set up holidays; see page 65.

When You Do not Need to Set Up Time Zones

If you do not need to limit access by day or time (that is, if users could use the readers twenty-four hours a day, seven days a week if they wanted), and if you do not want doors to unlock automatically, you do not need to set up time zones.

Getting to the List of Time Zones

1. Click the *View* menu.
2. Click *Time Zones*. You see a screen like the one below (though the time zones listed will be different). From here you can add, change, or delete time zones.



Adding or Changing Time Zones

The first time zone is *Always* and the last (#61) is *Never*; you cannot change either of these.

To add a time zone, click one of the blank lines in the time zone list and click *Edit*. To change a time zone, click the time zone to change and click *Edit*. Change the *Time Zone Definition* screen (see below) as needed and then click OK to return to this list. You can then add or change another or click *Close* when done.

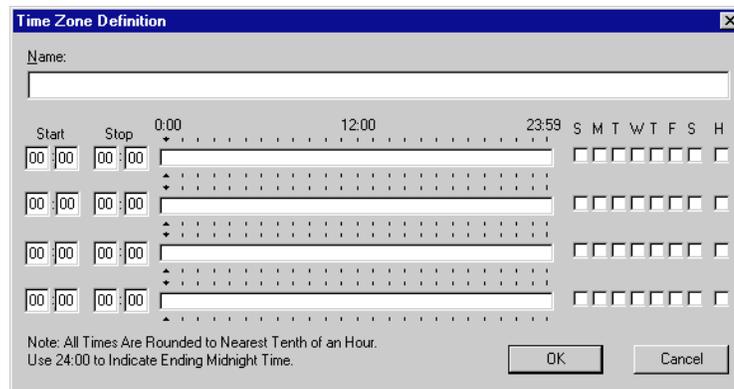
Deleting Time Zones

Click the time zone and click *Delete*. The program asks if you are sure you want to delete the time zone. Click *Yes*.

If you try to delete a time zone and get a message that the time zone is used in an access profile, you must close the time zone window, go to access profiles and select a different time zone for each reader that had this time zone selected if you still want to delete it.

Time Zone Definition Screen

This screen determines what hours access is available on different days of the week. A time zone is active if the time is equal to or after the start time and before the stop time, and if the day of the week matches one of those checked.



Name: Enter a name that will be clear to you so that when you associate the time zone with a reader in an access profile, you will be sure to pick the right one.

You can assign four different periods in each time zone if you need them; for example, if you want to give access during different hours on different days. Be sure to leave lines that you do not need blank.

Start/Stop Times: Enter hours after noon using military time. Use the chart below or see the examples if you need help. Times are divided into tenths of an hour, so HandNet rounds minutes to the nearest six minute interval. For example, if you enter 8:02, the program rounds this to 8:00; if you enter 8:03, the program rounds it to 8:06.

	Enter on the Time Zone screen		Enter on the Time Zone screen
noon	12:00	7:00 PM	19:00
1:00 PM	13:00	8:00 PM	20:00
2:00 PM	14:00	9:00 PM	21:00
3:00 PM	15:00	10:00 PM	22:00
4:00 PM	16:00	11:00 PM	23:00
5:00 PM	17:00	midnight	00:00 if a start time; 24:00 if a stop time
6:00 PM	18:00		

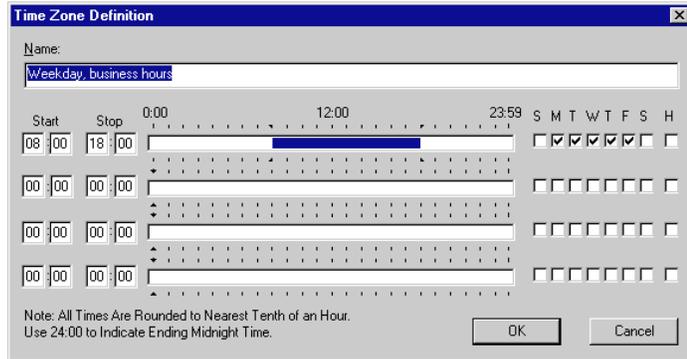
If a time zone must cross midnight (for example, if you want to give access between 8:00 PM and 4:00 AM), you must use two lines to create that access time. The first line would give access from 20:00 to 24:00 (that is, 8:00 PM to midnight), and the next line would give access on the same days of the week from 0:00 to 4:00 (that is, midnight to 4:00 AM). See the third example on the following page.

Days of the Week: Check the boxes for each of the day of the week that access should be available. The letters over the boxes correspond to the days of the week (Sunday through Saturday); H stands for holiday. If access is different on holidays than on other days, you must also set up holidays; see page 65. See the examples on the following page.

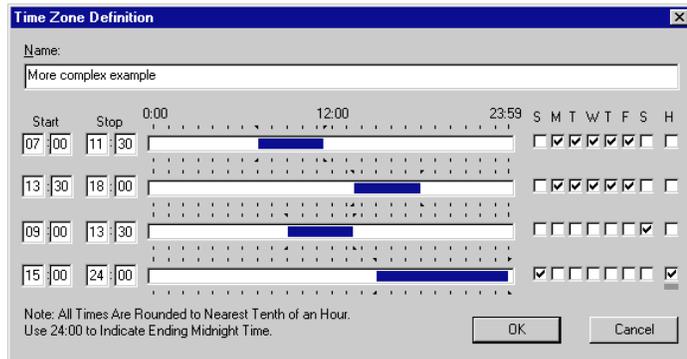
Click *OK* when done.

Examples of Time Zone Settings

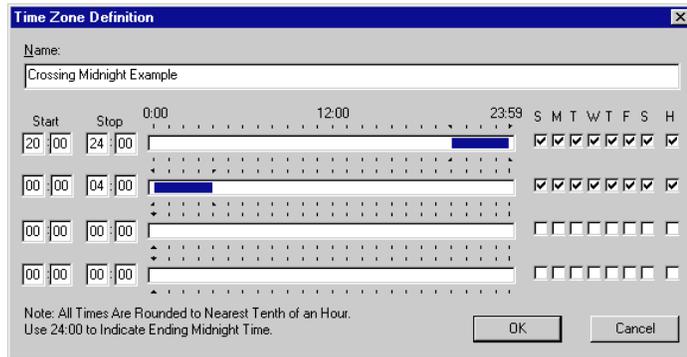
These settings give access between 8:00 AM and 6:00 PM, Monday through Friday. They do not give any access on Saturday, Sunday, or Holidays. The blue bar in the center section of the screen shows when access is available.



The following settings give access from 7:00 to 11:30 in the morning on weekdays, from 1:30 in the afternoon to 6:00 PM also on weekdays, from 9:00 in the morning to 1:30 in the afternoon on Saturdays, and from 5:00 PM to midnight on Sundays and holidays.



The following settings show how to cross midnight. This gives access from 8:00 PM through 4:00 AM any day of the week. Notice that this requires two lines to set up: the first going from 8:00 PM to midnight, and the next going from midnight to 4:00 AM.



* * * * *

Setting Up Holidays

When You Need to Set Up Holidays

If you want to prevent access on holidays or to give different access on holidays than on other days, the holidays list identifies when those holidays are. When you reach a holiday in the list, HandNet applies the holiday access times instead of the regular access times (if you set holidays up, you will also have to set up time zones to indicate what access users should have on different days; see page 61 for more on setting up time zones).

When You Do not Need to Set Up Holidays Adjusting Holidays Each Year

If you do not give different access on holidays than on other days, you do not need to set up any holidays.

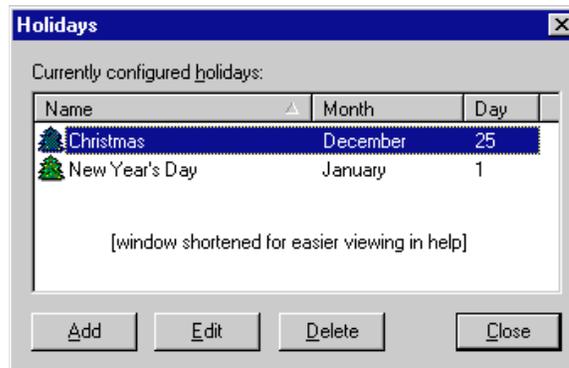
If you set holidays up, remember to return to the holidays setup at the beginning of each year to adjust each holiday that is celebrated on a different date than the previous year. For example, Thanksgiving, Memorial Day, and Labor Day are on different dates each year. Also, while holidays like Christmas and New Year's are always on the same date, when these holidays fall on a weekend, the day they are taken off is sometimes on a different date.

Getting to the Holidays List

1. Click *View* from the *Main Menu* bar.
2. Click *Holidays*. You see a list like this one below. From here you can add, change, or delete holidays.

Adding or Changing Holidays

To add a holiday, click *Add*; to change a holiday, click the holiday in the list and then click *Edit*. When you add or edit, you see this screen:



Name: Enter a name to help you identify the holiday.

Month: Click this entry and pick the month from the list (you could also press *TAB* from the *Name* entry and then type the first letter of the month. If more than one month begins with the same letter, typing that letter cycles through those months).



Day: Click this entry and pick the day from the list (you could also press *TAB* from the *Month* entry and then type the first digit. For example, if you want to get to twenty-five, you would type two (2) several times. The first time you type two (2), the date would show 2; when you type two (2) a second time, you would see 20; typing two again would switch to 21; you would repeat this until you got to the number you need).

Click *OK* when each entry is correct.

**Deleting
Holidays**

To delete a holiday: Click the holiday in the list and click *Delete*.

* * * * *

Setting Up Access Profiles

When You Need to Set Up Access Profiles

If some users can only use certain hand readers and/or only use them at certain times or on certain days, access profiles define when each type of user can use each reader. For example, suppose your maintenance staff should have access to the maintenance rooms seven days a week, your office staff should have access to the office but only during business hours, and your supervisors should have access to everything at any time. You would create three access profiles: one for supervisors, one for office staff, and one for maintenance personnel. These profiles would identify which readers each group could use. In these profiles you would also identify which time periods each group could use each reader (you would set up these time periods first using *Time Zones*). After creating these different profiles, whenever you added a user, you would just identify which group the user was a part of, and the access profile for that group would automatically give the appropriate access.

To limit access to certain days or times, you must set up time zones before creating access profiles; see page 61 for more on setting up time zones.

When You Do Not Need to Set Up Access Profiles

If you want all users to be able to use every reader any time, you do not need to set up access profiles. HandNet comes set up with an *Always* profile that lets users use any reader in the system twenty-four hours per day, seven days per week (it also has a *Never* profile that does not let the user verify at any reader at any time).

Getting to the List of Access Profiles

1. Click the *View* menu from the main menu bar.
2. Click *Access Profiles*. You see a screen like the one below (though the profiles listed will be different). From here you can add, change, or delete access profiles.



The *Default Time Zone* shown on this list does NOT reflect the time zones associated with the readers in this profile; it only reflects the time zone that HandNet initially picks if you associate another reader with this profile. Except for the *Always* profile, this column always says *Never*.

Adding an Access Profile

Click the *Add* button to add an access profile. This starts the *New Access Profile Wizard*.

New Access Profile Wizard, Screen 1

You see the *New Access Profile Wizard* when you add a new access profile to the list of access profiles.

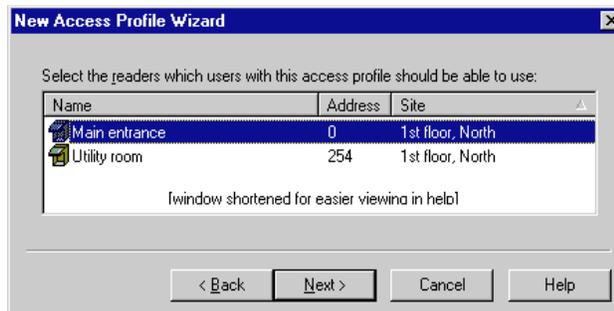


Name: Enter a name that describes the group of users that this access profile will be used for. For example, if this profile gives access that is appropriate for all of your maintenance staff, you could use that for the name. The important thing is for the name to be clear so that you do not give inappropriate access to users.

Click the *Next* button to go to the next screen.

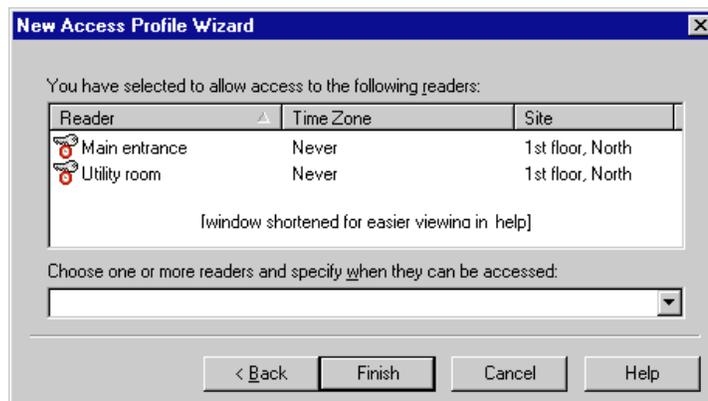
New Access Profile Wizard, Screen 2

The second screen in the *New Access Profile Wizard* lists all of your readers (typically you will have many more than the two shown in the example below). Select each reader that you want to give access to with this profile, and then click *Next*.



New Access Profile Wizard, Screen 3

The third and final *New Access Profile Wizard* screen shows all of the readers that you selected on the previous screen (if you discover that you missed a reader on the previous screen, click the *Back* button to return to the list of all readers and select it there).



When you come to this screen, each reader has a time zone of *Never*; you must change the time zone for each reader to give access to that reader through this profile.

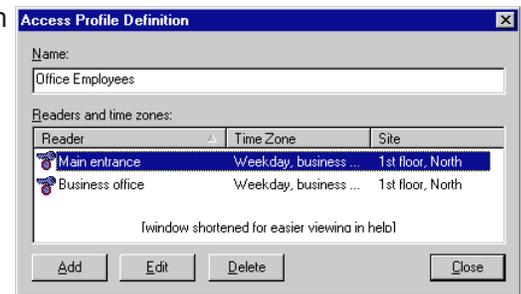
To associate time zones with the readers:

1. Select one or more readers on the list. If you forget to select readers, HandNet still lets you do the following step but it will not have any effect.
2. Click on the entry under *Choose one or more readers...* and select a time zone there. HandNet uses that time zone for each selected reader.

If you need to associate a different time zone with some readers, repeat these steps until you have specified a time zone for each reader. For example, suppose you were creating an access profile for maintenance workers, and suppose these workers had access to building entrances and maintenance facilities twenty-four hours a day, but they only had access to the business offices during normal business hours. You would select the entrance and maintenance readers and associate a time zone of *Always* with them. You would then select the business office readers and associate your normal business hours time zone with those readers.

Changing an Access Profile

To change an access profile, click it on the list and then click the *Edit* button. That brings up a list of readers that have been associated with the profile. The list looks like this:



To add another reader to those associated with this profile:

Click the *Add* button to bring up the *Access Profile Override* box (shown on the following page). Complete the entries there and click *OK*.

To change the time zone a reader is accessible with this profile: Click the reader in the list and click *Edit* to bring up the *Access Profile Override* box. Click the *Time Zone* entry, select the appropriate time zone, and then click *OK*.

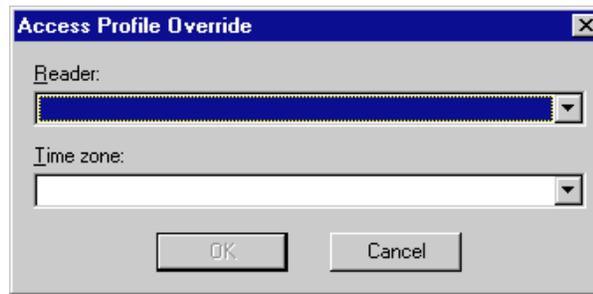
To change the time zone for several readers at once: Hold the *CTRL* key down and click each reader that you want to change the time zone. When all the appropriate readers are selected, click *Edit*. This brings up the *Access Profile Override* box but you can only change the *Time Zone* entry. Click the *Time Zone* entry, select the appropriate time zone, and then click *OK*.

To remove one or more readers from this access profile: Select the reader(s) in the list and click *Delete*.

Click *Close* to return to the list of profiles.

Access Profile Override Box

You see this same screen whether you are adding a reader to a profile or editing a reader that you have added previously (when adding the entries are initially blank; when editing, the entries are filled in with your previous choices).



Reader: Click this to choose a reader that should be associated with this profile. This only lists readers that have not already been added to this profile. If you click this and an empty pick box comes up, then you have already added all readers to this profile. This entry is disabled if you are changing several readers at once.

Time Zone: Click this and pick the time zone that the users with this profile should have access to the selected reader(s). If you have selected several readers, this changes all of them at once.

Click *OK* to return to the list of readers in this profile.

Deleting an Access Profile

To delete an access profile, click the profile on the list and click the *Delete* button. HandNet does not ask you to confirm the deletion, so make sure you pick the right one.

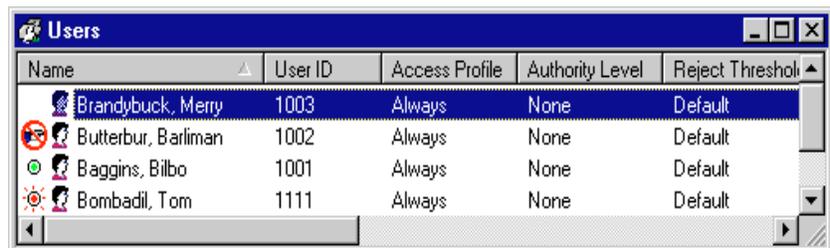
If you get a message that the access profile you are trying to delete is still assigned to a user, go to the list of users, double-click the user to go to the *User Properties*, click the *Security* tab, and select a different access profile for the user there. The message only lists the last user that the profile was assigned to, so there may be other users that also use the profile. Check the list of users to see if any other users use that profile (click the heading of the profile column in the user list to sort by profile; that will put all users with each profile together). If you find any other users using the profile you want to delete, select a different profile for each of them as well. Once no users are using the profile, you can return to this option and delete the profile.

* * * * *

Adding and Maintaining Users

Users Window

The users window lists every user that is in HandNet. To open this window, pick *Users* from the *View* menu or press *CTRL-U*.



Understanding the Icons to the Left of the Name

	No icon indicates that the user is enrolled able to use any readers permitted by the access profile.
	The no access icon indicates that the user is not enrolled yet and hence will not have access to any readers. You must enroll the user to give access; see page 87.
	The green light indicates that the user currently has access, and that the limited access feature was used to so this access will automatically expire at some point; see page 93 for more about limited access.
	The black dot indicates that the limited access feature was used to set a begin and end date/time for this user's access, and the user does NOT have access because the access period has not started yet; see page 93 for more about limited access.
	The red light indicates that the limited access feature was used to set a begin and end date/time for this user's access, and the user does NOT have access because the access period has ended; see page 93 for more about limited access.

Changing How the User List is Sorted

You can sort the list of users using the information in any column by clicking on the column heading. For example, to sort the user list alphabetically by name, click on the name heading. If you click on the same heading again, it will sort the list in reverse order (for example, using the name, it would sort from Z to A). Usually sorting by name or ID is most useful, but occasionally you might sort by another column to put all similar users together. For example, if you were preparing to change or delete a particular access profile, you might sort by the access profile column so that all users with that profile would be together on the list.

Rearranging Columns in the User Window

To move any column, click the column heading and hold the mouse down. With the mouse held down, drag the column heading to the left or right; see the online help for an example of this.

Changing Column Width

You might want to move columns to keep important information like user IDs out of view, or, if you have created custom user entries, you might want to move them to where you can see them, since they are initially out of view.

F5 restores all columns to the positions they had when you started HandNet. If you want HandNet to save the new column positions, exit the HandNet program and come back in. HandNet then uses your changed column positions as the new standard or default.

You can also change the width of a column by pointing to the edge of the column heading, holding the mouse down, and then dragging the edge of the column to the desired position. This lets you fit more columns in the window (or, if you wanted to hide information from the casual observer, you could make columns wider to push other columns out of view); see the online help for an example of this.

Columns of Information in the User Window

F5 restores all columns to the widths they had when you started HandNet. If you want HandNet to save the new column widths, exit the HandNet program and come back in. HandNet then uses your changed column widths as the new standard or default.

User ID: The ID number the user must enter at the reader to gain access.

Access Profile: The profile determines which readers the user can access and when. You set up access profiles using *Access Profiles* on the *View* menu. You can change a user's access profile on the *Security* tab in *User Properties*; see page 92.

Authority Level: This indicates whether the user is allowed to access the command menus on the readers. For most users, this should say *None*. You can change a user's authority level on the *Security* tab in *User Properties*; see page 92.

Reject Threshold: The reject threshold controls how closely a user's hand must match the stored hand profile for the user to gain access. If this says *Default*, then HandNet uses the *Reject Threshold* on the *Configuration* tab in the *Reader Properties* (see page 47). If this says *Default** (with an asterisk), this means the user does not need hand recognition to gain access because the user was set up with a special enrollment; see page 76. If this shows a number, someone chose to override the standard reject threshold on the *Security* tab in *User Properties*; see page 93. A lower number requires a very precise match to gain access; a high number requires the hand to match less exactly. Thirty is the lowest number possible; 250 is the highest. One might use a lower number for users with access to the highest security areas; one might need a higher number if a user had arthritis or other hand condition that made it impossible to consistently place the hand on the reader in exactly the same position.

Last Site: This lists the last site where the user gained access. This is blank for a new user who has not accessed a reader yet.

Last Reader: This lists the last reader the user gained access through. This is blank for a new user who has not accessed a reader yet.

Last Time Used: This shows the date and time of the user's last access.

Limited State: This says *Unlimited* for users who are not set up to only have access for a limited period of time, that is, for users whose access will continue indefinitely. For users who are set up to only have access for a limited period of time, this says *Waiting* if the access period has not started yet, *Limiting* if the user currently has access, and *Expired* if the user's access period has ended; see page 93 for more about limited access.

Limited Start Time: If this user has been set up to have access for a limited period of time, this shows the date and time that the user's access begins. HandNet will not give the user access before this date/time. This is blank for other users; see page 93 for more about limited access.

Limited End Time: If this user has been set up to have access for a limited period of time, this shows the date and time that the user's access ends. HandNet will not give the user access after this date/time. This is blank for other users; see page 93 for more about limited access.

Additional Custom Columns: If you created any custom user entries, those columns would be listed as well; see page 97 for more about adding custom entries.

* * * * *

Adding Users Overview

Before You Add Users

If you are going to limit access to specific time periods or specific readers, set up *Time Zones* (see page 61) and *Access Profiles* (see page 67) before you set your users up.

Choosing How to Add the Users

If you have already set up users in a stand alone reader: You do not need to add users; you can upload user information from the reader; see *Getting User Information from a Reader* on page 99.

If you have been using one of our MS-DOS HandNet products (HandNet or HandNet Plus): You do not need to add users; you can import them from HandNet(+); see page 98.

If you only have one user to add, if you do not assign ID numbers sequentially, if you are adding users with different access profiles, if you want to fill in custom entries when adding the users, or if users choose their own ID numbers: Add a single new user; see page 76.

If a user needs access without hand recognition: Add a single new user and choose the *Special Enrollment* option. Before you do this, read *Adding a User Who Has Access Without Hand Recognition* below.

If you have many new users with the same access profile and you want automatically assigned ID numbers: Add multiple new users; see page 81.

Adding a User Who Has Access Without Hand Recognition

If a user has severe arthritis, missing fingers, or other hand deformities that keep the user's hand from being recognized, you can give the user access without hand recognition (if you choose this, the reader still asks the user to place a hand on the reader so it will not be apparent to others that hand recognition is not required, but the reader does not check the image of the hand; it gives access regardless of whose hand is placed there). **Since bypassing hand recognition gives you reduced security, only use this as a last resort.** Try these options first:

If the user only has a problem with the right hand: Enroll the user using the left hand (the user will place the hand palm up on the reader).

If the user has all of his/her fingers and is just having trouble with placing the hand consistently: On the *Security* screen in *User Properties*, check *Override the reader's reject threshold*, and drag the pointer to the far right (the *Less Sensitive* side). This causes the reader to be more tolerant of what it considers a match for that user's hand.

If these options are not possible, or if you try them and they do not work, then you will have to set the user up so that hand recognition is not required. To do this, follow the steps below.

1. If you have already added this user, open the *User* window, click the user once, press the *DEL* key (or pick *Delete* from the *User* menu), and confirm that you want to delete the user.
2. Click the *User* menu and then click *Add New...* This takes you to the first screen of the *New User Wizard*.
3. Check the *Special Enrollment* box. Since this option does give lower

security, HandNet asks you to confirm that you want to do this; click *Yes*.

4. Click the *Next* button.
5. Complete the rest of the process just as you would for any other new user.
6. Since the reader does not have to recognize this user's hand, you do not need to enroll this user; once you click *Finish*, the process is done for this user.

Allowing Users to be Added at the Reader

HandNet is initially set up to only allow new users to be added in the program; you can enroll a user at a reader, but you cannot add a new user there. If you want to be able to add and enroll a new user at a reader without adding the user to HandNet first, do this:

1. Click the *View* menu.
2. Click *Settings*.
3. Click the *Security* tab.
4. Check the box by *Do not delete unauthorized enrollments*.
5. Underneath this, indicate what access profile should be given to a user who is added at a reader (if you do not want the user to be able to access any readers until you change them in HandNet, choose *Never*).
6. Click the *OK* button at the bottom of the box.

Preventing Users from Being Added at Readers

Follow the steps above to get to the *Security* tab and make sure that *Do not delete unauthorized enrollments* is NOT checked.

* * * * *

Adding a Single New User

Adding a Single User	
Q U I C K S T E P S	1. Click the <i>User</i> menu and then click <i>Add New...</i> This takes you to the first screen of the <i>New User Wizard</i> .
	2. <i>Add a single new user</i> is automatically selected, so click <i>Next</i> to continue.
	3. On the <i>Name/ID</i> screen, enter the name and the ID number you are assigning to that user, and then click <i>Next</i> to continue.
	4. On the <i>Security</i> screen, choose the access profile, authority level, and other security options. If you have set up custom user entries, click <i>Next</i> ; otherwise click <i>Finish</i> .
	5. If you see the <i>Custom</i> entries screen, fill in the column on the right and then click <i>Finish</i> .
	6. Once you are done adding the user, you must enroll the user before the user will have access; see page 87.

Beginning the Process

To begin adding a new user, pick *Add New...* from the *User* menu.



Special Enrollment: Check this box only if the user has severe hand deformities that require you to give the user access without hand recognition. This box is disabled if you are adding multiple users; if you are enrolling a user without hand access, you must add a single user.

Click *Next* to continue.

Name/ID Screen

This is the second screen in the process of adding a single new user:

Name: Enter the user's name.

If you want to sort the list of users by last name: Enter the last name first. For example, if the user's name is Sam Gamgee, you would enter *Gamgee, Sam*.

If you have two users with the same name: You must enter a unique name for each user. If two users have the same name, you might add a middle initial, or you might add a job description after each. For example, if you have two users named John Jones, you might enter something like *Jones, John (engineer)* and *Jones, John (maintenance)*.

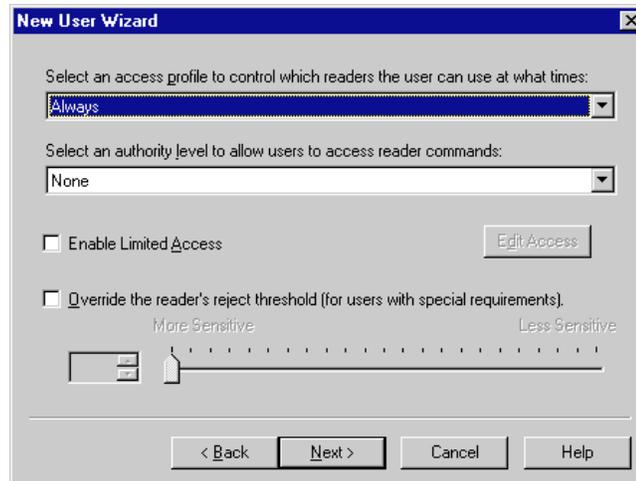
ID Number: Each number must be unique (if you could give the same number to two users, the reader would not know which was trying to gain access). Longer numbers are slightly more secure, but four or five digits are generally adequate in context where user's must enter the number. You may enter up to ten digits if you do not use a duress code, or up to nine digits if you do use a duress code. If you use a duress code, make sure that you do not create an ID that begins with that digit (see page 47 for more about duress codes). If you have set up an ID length on the *Settings* tab in the *Reader Properties* (see page 46), make sure that you do not create an ID that is longer than this.

If you use Wiegand card readers: Enter the ID number that is stored on the card.

Do not begin an ID with 0 (zero) if you are going to enroll the user with the command menus on the reader: HandNet lets you enroll a user by either picking *Enroll* from the *Reader* menu, or by using the *Command* menus on the reader (see page 88 for more about these options). If you are going to use the command menus on the reader, the *ID Number* should not begin with zero (0). While HandNet distinguishes between 5 and 0005, the process of adding a user from the reader command menu does not. This means that if you create a user with an ID of 0005 in HandNet and try to enroll that user with the command menus on the reader, when you type 0005, the reader thinks you are enrolling user 5. This will not correspond with 0005 in HandNet. If you are going to use *Enroll* on the *Reader* menu, you can begin an ID with zero (0) (if you are never going to begin an ID with zero, this might be a good choice for a duress code if you use one).

Security Screen

This screen controls what this user has access to and when.



Select an access profile to control which readers the user can use at what times: Click this entry for a list of available access profiles. If this user can use all readers at all times, choose *Always*. If you do not want the user to be able to use any readers, choose *Never*. For other access, select the appropriate profile. You must set access profiles up before they are available here; see page 67 for more on setting up access profiles.

Select an authority level to allow users to access reader commands:

This determines what the user can do at the reader. Each higher level gives access to the lower levels as well. For example, a user with an authority level of four can also use the *Level 1*, *2* and *3* menus. Except for recalibrating the reader (part of *Level 1*), and enrolling a user if you have not purchased the upgrade to the full feature set, HandNet can control every setting in the reader, so there is generally no need to control settings through the reader menus.

None: This lets the reader gain access through the reader, but not use the command menus in the reader to change the reader's settings. This choice is appropriate for most users.

(1) Service: This lets you recalibrate the reader and change the reader's status display.

(2) Setup: This lets you control reader setup issues including how the reader is connected to your computer network, what language the reader displays in, the date/time, etc.

(3) Management: This lets you list users.

(4) Enrollment: This lets you add or remove users.

(5) Security: This lets you control the passwords for the reader menus, change time zones, enroll users who do not need hand access, etc.

See the HandKey manual for more on directly changing settings through the reader.

Limited Access

Enable limited access: This gives a user access for a specific date range. For example, suppose a contractor or temporary employee was going to be working in your building for a month. Or suppose an employee gave notice that s/he was leaving for a new job in two weeks. Once this period was over, you would not want these users to have access. Rather than having to remember to disable the user on the appropriate date, this option lets you set a start and end date/time so the user is automatically enabled and disabled at the appropriate points.

To set up start and end date/times, check the box by this button and then click the *Edit Access* button (this button only works if you have checked the box). This takes you to the *Edit Limited Access* screen:

To change either start or end date or time, click the corresponding entry and pick from the list that comes up.

This option is disabled if you have not purchased the license upgrade to the full feature set of Version 2.0.

This option is NOT for limiting access to specific readers or for specific times of the day; to control that, use the *Access Profiles* entry.

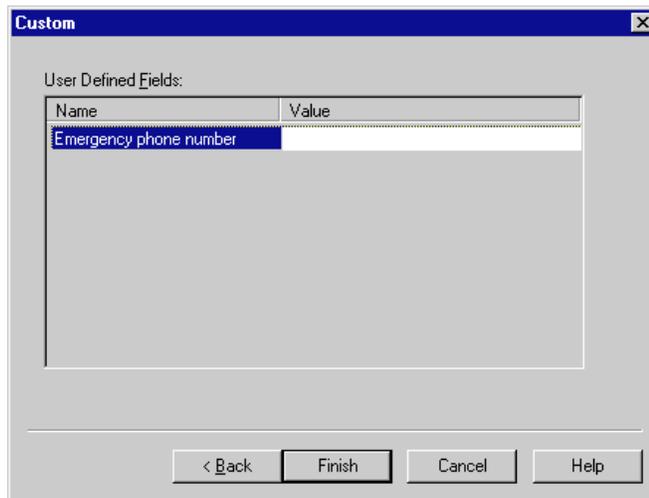
Override the reader's reject threshold (for users with special requirements):

For users with a physical condition like arthritis that prevents them from placing their hands on the reader in exactly the same way each time, this option lets you control how exact the hand match must be for the reader to grant access.

Normally you would not change this when adding the user. Instead, add and enroll the user, and then see if the user is having trouble gaining access. If a user is having trouble getting access consistently, go to the *Security* tab in the *User Properties* and change this entry there. You would check this box and then slide the pointer further to the right (the *Less Sensitive* side). If a user has a really severe hand condition, it is possible to give access without hand recognition, but because this offers reduced security, that should only be a last resort.

Custom Entries Screen

You only see this screen if you have set up any custom user entries (see page 97). The entries on this screen vary depending on what you have set up. For each entry on this screen, type the information in the *Value* column.



The screenshot shows a dialog box titled "Custom" with a close button (X) in the top right corner. Below the title bar, the text "User Defined Fields:" is displayed. Underneath, there is a table with two columns: "Name" and "Value". The first row of the table has "Emergency phone number" in the "Name" column, which is highlighted with a blue selection bar. The "Value" column for this row is empty. Below the table, there are four buttons: "< Back", "Finish", "Cancel", and "Help".

Click *Finish* when done.

What to Do Next

The next step is to enroll the user; see page 87.

* * * * *

Adding a Group of Users at Once

You would add a group of users at once if you have to add many new users with the same access profile and other security access options, and if you want HandNet to automatically assign sequential ID numbers (if each user needs a different access profile, if you need to assign non-sequential ID numbers, or if you want to fill in custom user entries while adding the users, add single users instead; see *Adding a Single New User* on page 76).

Adding Multiple Users	
Q U I C K S T E P S	<ol style="list-style-type: none"> 1. Click the <i>User</i> menu and then click <i>Add New...</i> This takes you to the first screen of the <i>New User Wizard</i>. 2. Click <i>Add multiple new users</i>, and then click <i>Next</i>. 3. On the screen that asks for the number of users and starting ID, enter the number of users to create, and the ID number for the first new user. Click <i>Next</i> to continue. 4. On the <i>Security</i> screen, choose the access profile to assign to each of the new users. If needed, you can change the authority level and limited access. Do NOT change the user reject threshold. If you need to, you can later change this individually for a user who is having access problems. Click <i>Next</i> to continue. 5. The next screen shows the progress in adding the users. Once the process is done, click <i>Finish</i>. 6. You need to enroll the users before they have access. Typically, you will also rename the users since adding multiple users at once uses the ID number for the name. 7. If you have set up custom user entries, you will also want to edit the <i>Properties</i> for each user, click the <i>Custom</i> tab, and fill the appropriate information in there.

Beginning the Process

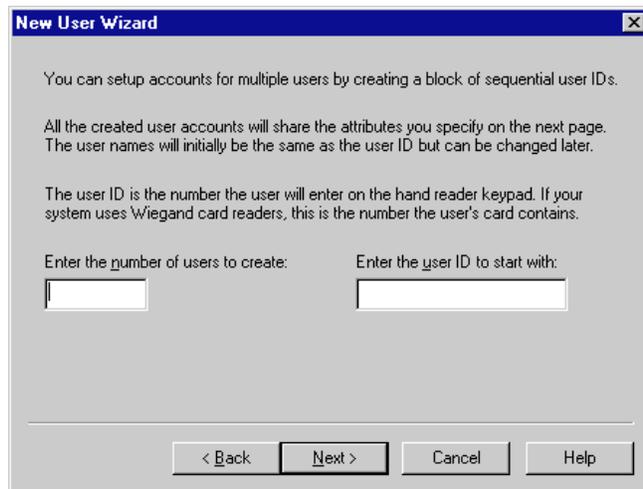
To begin adding a new user, pick *Add New...* from the *User* menu.



Click the *Radio* button by *Add Multiple Users*, and then click the *Next* button.

Number of Users to Add and Starting ID

After you choose to add multiple users at once on the first screen of the *New User Wizard*, you see this screen.



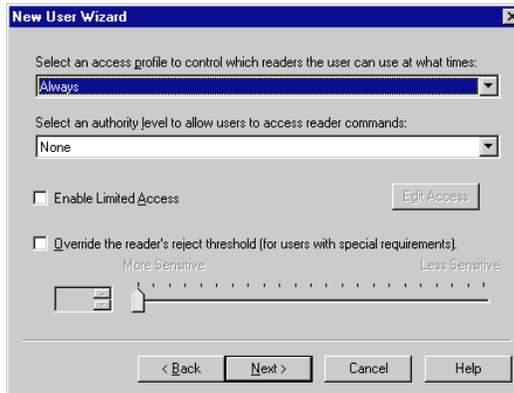
Number of users to create: Enter the number of users you want to add.

User ID to start with: Enter the starting user ID number. Use the number of digits that you would like for the final ID. For example, if you always want a five-digit ID number and you want to start with 1, enter 00001 rather than just 1. If you enter 00001, HandNet will use 00002 next, then 00003, and so on. If HandNet finds that a number is already used, it will skip that number and use the next available number. For example, if you enter 1000 as the starting number and 1000 through 1020 are all used, HandNet will automatically skip these numbers and start at 1021. When the program adds the numbers at the end of the process, it lets you know if it had to skip any existing ID numbers.

However, do not begin an ID with zero (0) if you are going to enroll the user with the command menus on the reader. HandNet lets you enroll a user by either picking *Enroll* from the *Reader* menu, or by using the *Command* menus on the reader. If you are going to use the *Command* menus on the reader, the ID number should not begin with zero (0). While HandNet distinguishes between 5 and 0005, the process of adding a user from the reader command menu does not. This means that if you create a user with an ID of 0005 in HandNet and try to enroll that user with the command menus on the reader, when you type 0005, the reader thinks you are enrolling User Five, and this will not correspond with 0005 in HandNet. If you are going to use *Enroll* on the *Reader* menu, you can begin an ID with zero (if you are never going to begin an ID with zero, this might be a good choice for a duress code if you use one; see page 47 for more about duress codes).

Security Options

This screen controls what this user has access to and when.



After you click *Next* on this screen, HandNet adds the new users.

Select an access profile to control which readers the user can use at what times: Click this entry for a list of available access profiles. If these users can use all readers at all times, choose *Always*. If you do not want these users to be able to use any readers at this point, choose *Never*. For other access, select the appropriate profile. You must set access profiles up before they are available here; see page 67 for more about setting up access profiles.

Select an authority level to allow users to access reader commands: This determines what the users can do at the reader. For most users, *None* is the appropriate choice.

Each higher level gives access to the lower levels as well. For example, users with an authority level of four can also use the *Level 1, 2* and *3* menus. Except for recalibrating the reader (part of *Level 1*), and enrolling a user if you have not purchased the upgrade to the full feature set, HandNet can control every setting in the reader, so there is generally no need to control settings through the control menus in the reader.

None: This lets the reader gain access through the reader, but not use the command menus in the reader to change the reader's settings. This choice is appropriate for most users.

(1) Service: This lets you recalibrate the reader and change the reader's status display.

(2) Setup: This lets you control reader setup issues including how the reader is connected to your computer network, what language the reader displays in, the date/time, etc.

(3) Management: This lets you list users.

(4) Enrollment: This lets you add or remove users.

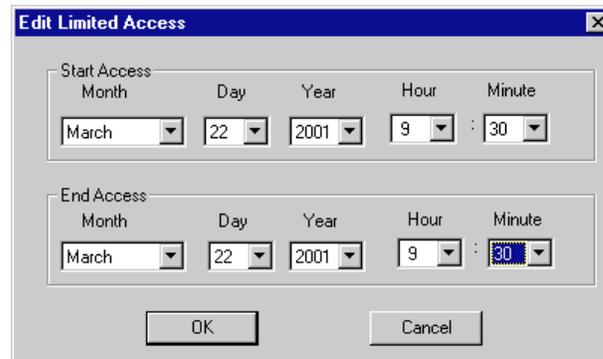
(5) Security: This lets you control the passwords for the reader menus, change time zones, enroll users who do not need hand access, etc.

See the HandKey manual for more on directly changing settings through the reader.

Limited Access

Enable limited access: This gives a user access for a specific date range. For example, suppose a contractor or temporary employee was going to be working in your building for a month. Or suppose an employee gave notice that s/he was leaving for a new job in two weeks. Once this period was over, you would not want these users to have access. Rather than having to remember to disable the user on the appropriate date, this option lets you set a start and end date/time so the user is automatically enabled and disabled at the appropriate points.

To set up start and end date/times, check the box by this button and then click the *Edit Access* button (this button only works if you have checked the box). This takes you to the *Edit Limited Access* screen:



The screenshot shows a dialog box titled "Edit Limited Access". It contains two sections for setting dates and times. The "Start Access" section has dropdowns for Month (March), Day (22), Year (2001), Hour (9), and Minute (30). The "End Access" section has dropdowns for Month (March), Day (22), Year (2001), Hour (9), and Minute (30). At the bottom are "OK" and "Cancel" buttons.

To change either start or end date or time, click the corresponding entry and pick from the list that comes up.

This option is disabled if you have not purchased the license upgrade to the full feature set of Version 2.0.

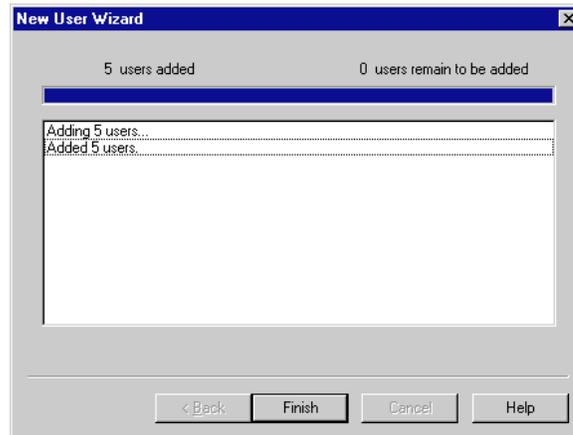
This option is NOT for limiting access to specific readers or for specific times of the day; to control that, use the *Access Profiles* entry.

Override the reader's reject threshold (for users with special requirements): Never change this option when adding multiple users at once. For users with a physical condition like arthritis that prevents them from placing their hands on the reader in exactly the same way each time, this option lets you control how exact the hand match must be for the reader to grant access. Only change this for individual users who are having trouble gaining access, never for a whole group of users at once.

If you later discover that a user is having trouble getting access consistently, go to the *Security* tab in the *User Properties* and change this entry there; see page 92. You would check this box and then slide the pointer further to the right (the *Less Sensitive* side). If a user has a really severe hand condition, it is possible to give access without hand recognition, but because this offers reduced security, that should only be a last resort; see *Adding a User Who Has Access Without Hand Recognition* on page 74 for more on this.

Progress Bar

This is the final screen in the process of adding new users. If you are adding a large number of users, it gives you an idea of how much longer the process will take.



If HandNet tries to add ID numbers that are already used, you see messages about those numbers being skipped (this will not change the number of new users that are added).

What to Do Next

After you click *Finish* to leave the screen above, you need to enroll the users before they have access; see page 87. You will typically also want to rename the users since this process uses the ID number for the name; page 90. And if you created custom user entries, you will want to go to the *Custom* tab in *User Properties* to fill these entries in for each user; see page 94.

* * * * *

Teaching Users How to Place Their Hands on Readers

Correct Hand Placement

Because the reader is looking at the shape of the hand, it is important that you place your hand on the reader the same way every time. When you put your hand on the reader, do this:

- If you are wearing a ring, make sure the stone is up in its normal position.
- Slide your hand forward onto the platen (moving forward like a plane would land at the airport; not straight down like a helicopter would land). Place your hand gently and comfortably; there is no need to apply pressure.
- Keep your hand flat. You should feel the platen with your palm and with the bottom of your fingers.
- Once your hand is flat on the platen, gently close your fingers so they touch against the finger pins. Again, there is no need to apply pressure or press hard. Watch the lights on the hand diagram on the top of the reader; if a light stays on, that finger is not making proper contact with the pin.

Left Hand Placement

If you have been enrolled with your left hand, follow the instructions above, but put your left hand palm up on the reader. The back of your hand should be as flat as possible against the platen.

* * * * *

Enrolling Users

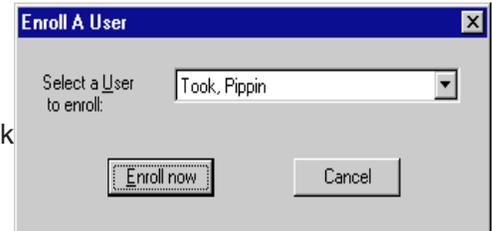
Before a user can have access, you must take the user to a reader and have the reader create an image or template of the user's hand. If you have purchased the upgrade to the full feature set, you can start this process using *Enroll* on the *Reader* menu. If you have not purchased this upgrade, you must use the reader command menus to start the enrollment process.

Using the Enroll Option on the Reader Menu

Before you enroll a user, add the user in HandNet; see page 76. You should also teach the user about correct hand placement; see page 86.

1. If the *Network* window is not open, press *CTRL-N* to open it.
2. In the *Network* window, click the reader to enroll the user at.

3. Click the *Reader* menu, and click *Enroll*. You see a screen like this:



4. If the user to enroll is not shown, click the entry and pick the user's name. Then click *Enroll now*.

5. The reader asks the user to place and remove his/her hand three times (if it asks for the hand more than three times, the user is not placing his/her hand consistently; go over the instructions for correct hand placement).

Unless you get a message indicating that there was a problem, the user is now enrolled.

Manually Enrolling Users Using the Reader Command Menus

Before you enroll a user, add the user in HandNet; see page 76. You should also teach the user about correct hand placement on page 86.

1. Check the list of users to make sure you have an authority level of four or higher. If you have an authority level of none, one, two, or three, you cannot do this (to change your authority level, double-click your name on the list of users, click the *Security* tab, click the *Authority Level* entry, and select the appropriate level).
2. Go to the reader to be recalibrated, and enter command mode on the reader:

If you have a HandKey II or HandKey CR reader: Press *CLEAR*, and then press *ENTER*.

If you have an ID3D HandKey reader: Press # AND * (you can press them at the same time, or one after the other).

The display on the reader should look like this:



3. Type your user ID number (the same one you enter to get access through the reader), and press *ENTER* or *#*. The reader asks you to place your hand. Once it recognizes your hand, this display looks like this:

ENTER PASSWORD

4. Type *4* and press *ENTER* or *#* (this is the standard password for the *Enrollment* menu in the reader; if you have changed this on the *Passwords* screen in the *Reader Properties*, enter the password you have set up).

If you have a HandKey II or HandKey CR reader: The display should now look like this:

ADD USER
* **NO** **YES #**

If you have an ID3D HandKey reader: The display should now look like this:

ENROLL USER
* **NO** **YES #**

If the reader shows the *READY* screen again instead of this screen, then either you placed your hand improperly or you do not have the rights to do this; carefully check step one again.

5. Press the *YES / #* button. This display should now look like this:

ID?
:

6. Type the ID number of the user to enroll and press *ENTER* or *YES / #*. The display should now look like this:

**** PLACE HAND ****
1/3

7. Have the user place his/her hand on the reader. The reader will ask the user to remove the hand and place it again. The reader should ask the user to place his/her hand three times; if it asks for the hand more than three times, the user is not placing his/her hand consistently; go over the instructions for correct hand placement.

Once the user has correctly placed the hand three times, the reader asks for the time zone:

ENTER TIME ZONE
(0)?:

8. When the user has access to this and other readers is controlled by the access profile you have assigned in the user's properties, so just press *ENTER* or *YES / #*.
9. The reader briefly flashes the message *User Enrolled* and then returns you to the *Add User* or *Enroll User* display. Enroll another user if needed, or press the *CLEAR* button to leave the *Enrollment* menu and return to the reader to its normal display.

* * * * *

Changing Users

Overview

Changing Users	
Q U I C K S T E P S	<ol style="list-style-type: none"> 1. If the user window is not shown, press <i>CTRL-U</i> or pick <i>Users</i> from the <i>View</i> menu. 2. Double-click the user to change information. This takes you to the <i>General</i> tab in the <i>User Properties</i> (you can also click the user once and then pick <i>Properties</i> from the <i>User</i> menu). 3. Click the tab that has the information you want to change: To change the user's name or ID: this is on the <i>General</i> tab. To change the users access level, authority, limited access, or the reader's sensitivity: Click the <i>Security</i> tab. To change Custom entries: Click the <i>Custom</i> tab. 4. Change information as needed and then click <i>OK</i>.

Renaming Users

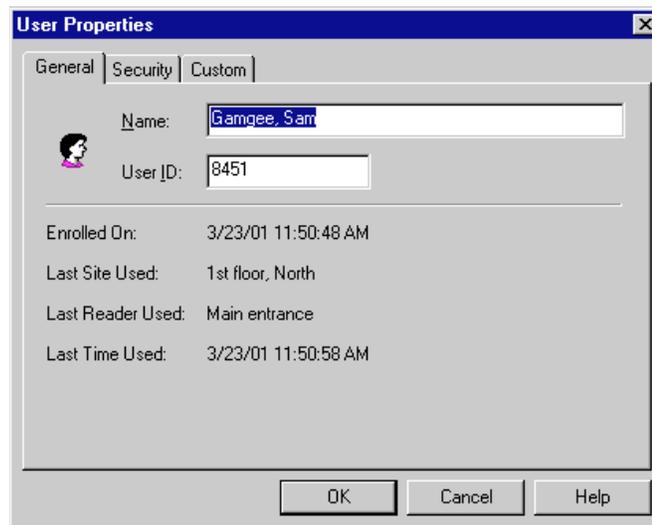
1. If the user window is not shown, press *CTRL-U* or pick *Users* from the *View* menu.
2. Double-click the user to rename. This takes you to *User Properties*.
3. Type the new name, and then press *ENTER* or click *OK*.

Alternate Methods

Right-click the user's name and pick *Rename* from the menu that pops up; click the user once and pick *Rename* from the *View* menu; or click the user once, pause for long enough so the computer will not think you are double-clicking, and then click directly on the user's name.

User Properties, General

The *General* tab in *User Properties* lets you change the user's name or ID. It also shows when the user last accessed a reader.



Name: Enter the user's name.

If you want to sort the list of users by last name: Enter the last name first. For example, if the user's name is Sam Gamgee, you would enter *Gamgee, Sam*.

If you have two users with the same name: You must enter a unique name for each user. If two users have the same name, you might add a middle initial, or you might add a job description after each. For example, if you have two users named John Jones, you might enter something like *Jones, John (engineer)* and *Jones, John (maintenance)*.

ID Number: If you change a user's ID, be sure to let the user know. The user will not be able to gain access through any reader without knowing the correct ID.

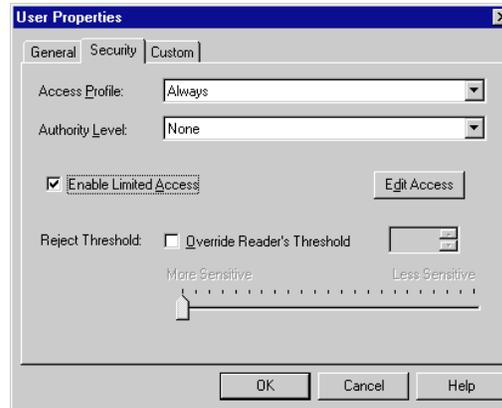
Each number must be unique (if you could give the same number to two users, the reader would not know which was trying to gain access). Longer numbers are slightly more secure, but four or five digits are generally adequate in context where user's must enter the number. You may enter up to ten digits if you do not use a duress code, or up to nine digits if you do use a duress code. If you use a duress code, make sure that you do not create an ID that begins with that digit; see page 47 for more about duress codes. If you have set up an *ID length* on the *Settings* tab in the *Reader Properties*, make sure that you do not create an ID that is longer than this; see page 47 for more about ID length.

If you use Wiegand card readers: Enter the ID number stored on the card.

Do not begin an ID with zero (0) if you are going to enroll the user with the command menus on the reader: HandNet lets you enroll a user by either picking *Enroll* from the *Reader* menu, or by using the command menus on the reader. If you are going to use the command menus on the reader, the ID number should not begin with zero (0). While HandNet distinguishes between 5 and 0005, the process of adding a user from the reader does not. This means that if you create a user with an ID of 0005 in HandNet and try to enroll that user with the command menus on the reader, when you type 0005, the reader thinks you are enrolling user 5; this will not correspond with 0005 in HandNet. If you are going to use *Enroll* on the *Reader* menu, you can begin an ID with zero (if you are never going to begin an ID with zero, this might be a good choice for a duress code if you use one).

User Properties, Security

The *Security* tab controls what this user has access to and when.



Select an access profile to control which readers the user can use at what times: Click this entry for a list of available access profiles. If this user can use all readers at all times, choose *Always*. If you do not want the user to be able to use any readers at this point, choose *Never*. For other access, select the appropriate profile. You must set access profiles up before they are available here.

Select an authority level to allow users to access reader commands: This determines what the user can do at the reader. For most users, *None* is the appropriate choice.

Each higher level gives access to the lower levels as well. For example, a user with an authority level of four can also use the *Level one*, *two* and *three* menus. Except for recalibrating the reader (part of level 1), and enrolling a user if you have not purchased the upgrade to the full feature set, HandNet can control every setting in the reader, so there is generally no need to control settings through the reader menus.

None: This lets the reader gain access through the reader, but not use the command menus in the reader to change the reader's settings. This choice is appropriate for most users.

(1) Service: This lets you recalibrate the reader and change the reader's status display.

(2) Setup: This lets you control reader setup issues including how the reader is connected to your computer network, what language the reader displays in, the date/time, etc.

(3) Management: This lets you list users.

(4) Enrollment: This lets you add or remove users.

(5) Security: This lets you control the passwords for the reader menus, change time zones, enroll users who do not need hand access, etc.

See the HandKey manual for more on directly changing settings through the reader.

Limited Access

Enable limited access: This gives a user access for a specific date range.

For example, suppose a contractor or temporary employee is going to be working in your building for a month. Or suppose an employee gives notice that s/he is leaving for a new job in two weeks. Once this period is over, you would not want these users to have access. Rather than having to remember to disable the user on the appropriate date, this option lets you set a start and end date/time so the user is automatically enabled and disabled at the appropriate points.

To set up start and end date/times, check the box by this button and then click the *Edit Access* button (this button only works if you have checked the box). This takes you to the *Edit Limited Access* screen:

To change either start or end date or time, click the corresponding entry and pick from the list that comes up.

This option is disabled if you have not purchased the license upgrade to the full feature set of Version 2.0.

This option is NOT for limiting access to specific readers or for specific times of the day. To control that, use the *Access Profiles* entry.

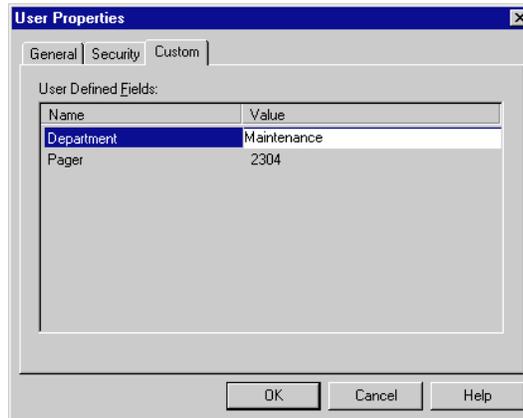
Override the reader's reject threshold (for users with special requirements)

requirements): For users with a physical condition like arthritis that prevents them from placing their hands on the reader in exactly the same way each time, this option lets you control how exact the hand match must be for the reader to grant access.

If a user is having trouble getting access consistently, check this box and then slide the pointer further to the right (the *Less Sensitive* side). If a user has a really severe hand condition, it is possible to give access without hand recognition, but because this offers reduced security, that should only be a last resort.

User Properties, Custom

You only see entries on the *Custom* tab if you have set up custom user entries (see page 97 for more on creating custom user entries). The entries on this screen vary depending on what you have set up; the entries on your screen will probably be completely different from the examples show below.



To change a value, click the item in the *Value* column and then enter the correct value.

When You Are Done

When you are done changing *User Properties*, click the *OK* button at the bottom of the screen.

* * * * *

Changing Access for Many Users at Once

Import TZ Option *Import TZ* on the *File* menu lets you change the access profile to *Always* or *Never* for many users based on information in a text file (this file would be created with some other program).

Caution If you use this option, be aware that there are security risks involved: if you mistype a number in the file, you could easily give full access to a different user than you intended. And unlike most other changes in HandNet, the fact that this option is used and the fact that a user's access is changed is NOT reflected in the activity log, so you will not have any record of the change. In most contexts, it is more appropriate to change user access through the *Security* tab in *User Properties*; see page 92.

File Format Each line of the file would list a user ID number followed by a comma, and then either 0 (zero) to set that user's access profile to *Always*, or sixty-one, to set that user's profile to *Never* (currently, you cannot use the file to switch to any other profile). For example, suppose your text file looked like this:

```
1001, 0
1002, 0
1003, 61
21345, 0
43567, 61
```

If you import this file, HandNet would set the access profile to *Always* for users with the IDs of 1001, 1002, and 21345, and it would set the profile to *Never* for users with IDs 1003 and 43567. It would not change the access profiles for any other users. If HandNet could not find a user with the corresponding ID number, or if you have something other than zero or sixty-one after the comma, HandNet would skip that line. It would not give you any message or tell you the line was skipped. If you have any lines that did not match the format above (for example, if you do not have the comma between the ID and the zero or sixty-one), HandNet would give a message at the end of the process that tells you how many bad records are ignored. If other lines are in the correct format, HandNet would still process them successfully.

You do not see any message or progress bar during the import process. If you are importing many records, you could have some delay where it looks like nothing is happening. For example, on a 166MHz processor, importing 1,000 records takes slightly over thirty seconds; you would not see any activity while this is happening.

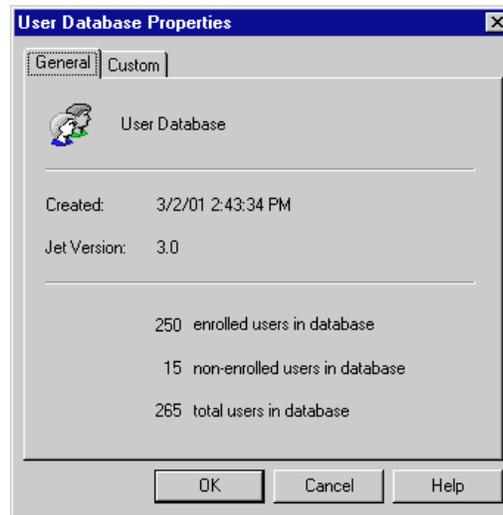
* * * * *

User Database Properties

What Information Is Shown

This screen shows general information about the whole user database, including the date it is created, the Version number, the number of enrolled users and number of non-enrolled users, and the total number of users in the database. You do not typically need this information during normal use of the program. However, if you want to add or change custom user entries, you would come to this screen and then click the *Custom* tab.

You get to this screen by picking *DB Properties* from the *User* menu.



* * * * *

Adding Custom User Entries

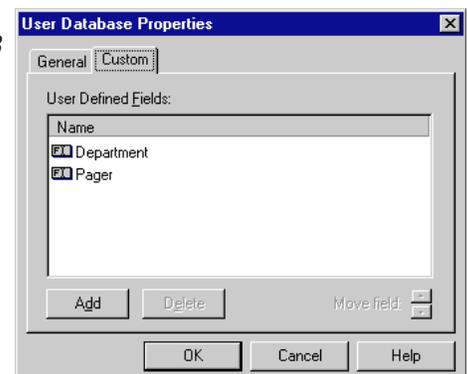
To collect additional information about users in HandNet, you can add additional custom entries. HandNet then asks for this information on the *Custom* screen of *New User Wizard* (see page 80) and the *Custom* tab in the *User Properties* (page 94).

What you might want to collect could vary widely depending on how you are using HandNet: emergency phone numbers, employment start dates, department, pager number. You can add as many entries as you need.

The information that you add in custom entries is only available on the screen, either in *User Properties* or on the list of users (available by picking *Users* from the *View* menu). Currently, HandNet does not include custom user information on any reports.

Getting to the List of Custom Entries

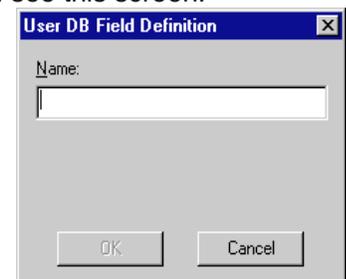
1. Click the *User* menu and then click *DB Properties*.
2. Click the *Custom* tab. You will see a screen like this, but with different entries.



Adding a New Entry

To add a new custom entry, click the *Add* button. You see this screen:

Type the name of the field or entry to add and press *ENTER* or click *OK*. Make sure that you enter the name of the entry correctly; once you continue, you cannot change the name.



Deleting a Custom Entry

Click the entry in the list and click *Delete*. Be sure that you are deleting the correct item; the program will not ask you to confirm the deletion, and once you delete a custom entry, all information that you have entered for users in that entry is gone. For example, suppose you create an *Emergency Phone Number* entry and entered phone numbers for all of your users. If you delete emergency phone numbers here, all of the phone numbers that you enter would be gone and there would be no way to get them back unless you make a backup of your HandNet information.

Changing the Order of the Entries

On the *Custom* screen in the *User Properties*, the entries in the same order as they are listed here. To change the order of the entries, click the entry to move and then click the up or down arrows next to the words *Move field*.

* * * * *

Converting Users from MS-DOS HandNet or HandNet+

If you have been using one of our MS-DOS programs (either HandNet or HandNet+), *Convert HandNet+...* on the *File* menu lets you import your users so you do not have to enter and enroll them again. This option brings in each user's name, ID number, authority level, and reject threshold.

If you have been using an older Version of HandNet for Windows, you do not need to do anything to convert that information.

To Convert HandNet Plus Users

1. If you have been using HandNet rather than HandNet Plus, follow the steps below to convert your user information from HandNet to HandNet Plus format.
2. Pick *Convert HandNet+* from the *File* menu.
3. If you have installed HandNet+ somewhere other than in C:\HNETH, click the *Browse* button and go to the directory where HandNet+ is installed. Then click the *Open* button.
4. Click the *Convert* button. The HandNet+ database is converted to HandNet for Windows™ format.
5. This con Version does not bring in the access profiles for the users, so when this is done you must assign an access profile to each user on the *Security* tab in *User Properties*.

To Convert MS-DOS HandNet Users

If your DOS Version of HandNet is in the standard /HNETH directory: Press *F1* while in HandNet to pop up the help. In the index, type *convert* and open the topic on converting HandNet+ information. In this topic there is a button that automatically does this process for you.

If your DOS Version of HandNet is NOT in the standard /HNETH directory:

1. Copy the *convert.exe* file from the HandNet for Windows directory to the directory the MS-DOS Version of HandNet is located. The standard location for HandNet for Windows is *C:\Program Files\Schlage Biometrics, Inc.\HandNet for Windows*. For example, to copy the convert file from this directory to *c:\hnet*, you would type:

```
copy c:\progra~1\recogn~1\handne~1\convert.exe c:\hnet\
```

2. Switch to the directory the MS-DOS Version of HandNet is in. For example, to switch to the *\hnet* directory, you would type *cd\hnet* and press *ENTER*.
3. Make a backup copy of the file that contains your user information. This file is called *id_dbase.dat*. For example, you might type:

```
copy id_dbase.dat id_dabase.bak
```

4. Type *convert* and press *ENTER*. This should convert the information to HandNet Plus format. Once you have done this, you are ready to import the information into HandNet for Windows using the steps described above.

* * * * *

Importing and Exporting Users

Getting User Information from a Reader

If you have already set up users in a reader that you are connecting to HandNet, you do not need to recreate those users. You can get user information from the reader by doing this:

1. Pick *Network* from the *View* menu (or type *CTRL-N*).
2. On the list of readers in the right pane of the *Network* window, select the reader(s) to get user information from.
3. Click the *Reader* menu, click *Upload*, and click *Users*.
4. The program asks you to confirm that you want to upload users from the reader; click *Yes* to continue.

Importing Users from Another Copy of HandNet

You only need to import users if you have readers connected to several different computers (each with its own copy of HandNet) and if users added to one system need to be available on the others. If all of your readers are connected to a single copy of HandNet, you do not need this feature.

The export feature is only available if you have purchased the upgrade to the full feature set of Version 2.0.

Setting Up Import Settings First

Make sure that you select the correct choices for what to import on the *User Import/Export* tab in *System Settings* before you try to import; see page 28. When HandNet imports, it empties the *Import* file, discarding those user records that do not meet the conditions you have checked there.

Importing Users From Another Computer

1. On the computer where you exported users, go to the HandNet directory and copy the file *export.mdb* to a floppy disk (you could also copy this file to a network drive, attach it to an e-mail, etc.).
2. Rename the file on the disk (or in the new location) to *import.mdb*.
3. Put this *import.mdb* file into the HandNet directory on the computer where you want to import users.
4. If you do not have that copy of HandNet set up to import automatically, pick *Import Users* from the *File* menu (if you have the *Enable* box under *Auto Import* checked on the *User Import/Export* tab in *System Settings*, HandNet starts importing as soon as it finds the *import.mdb* file in the directory; see page 28).

The activity window lists each user that is added, deleted or changed.

Exporting Users to Another Copy of HandNet

You only need to export users if you have readers connected to several different computers (each with its own copy of HandNet) and if users added to one system need to be available on the others. If all of your readers are connected to a single copy of HandNet, you do not need this feature.

The export feature is only available if you have purchased the upgrade to the full feature set of Version 2.0.

Automatically Exporting Users

HandNet can automatically export users when you create, enroll, change or delete users. When HandNet exports users is controlled by the items in the *Export* column on the *User Import/Export* tab in *System Settings*; see page 28.

Manually Exporting Users

1. Go to the *Users* window.
2. Select the users to export. To select multiple users that are together on the list, click the first user, hold the *SHIFT* key down, and click the last user that you want to select. To select multiple users that are not together on the list, click the first user to select, hold the *CTRL* key down, and click each other user that you want to select.
3. Right-click (this brings up a menu).
4. On the menu, point to *Export*, and then pick *Selected* (or pick *All* to export every user in the list whether selected or not).

You will see a message with a progress bar that indicates that the users are being exported (if you only selected a few users, this may vanish almost instantly). Once this box disappears, the export process is done.

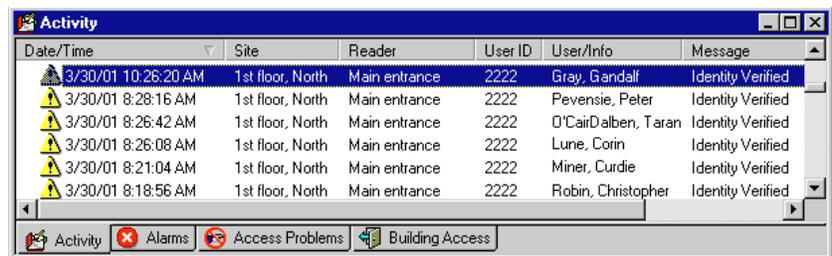
To import these users on the other computer, see the instructions for *Importing Users from Another Copy of HandNet* on page 99.

* * * * *

Monitoring Ongoing Activity

Activity Window

The *Activity* window lists everything that happens at any reader connected to HandNet, and any change made in the HandNet program. To open this window, pick *Activity* from the *View* menu, or press *CTRL-A*.



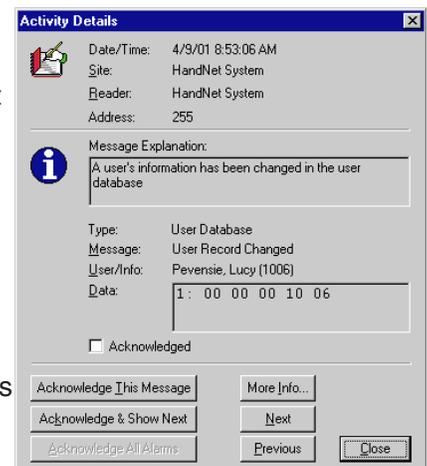
Only the first two tabs at the bottom of this screen (*Activity* and *Alarms*) are always there. The others are merely examples of custom activity views that you can create as needed; see *Creating Custom Activity Views* on page 104.

Rearranging or Resizing Columns in the Activity Window

To move any column, click on the column heading and hold the mouse down. With the mouse held down, drag the column heading to the left or right.

Getting More Detail about an Activity in the Activity Window

When you double-click on an activity in the *Activity* window, you get a screen like this that tells more about that activity.



Date/Time: This shows the date and time when the activity occurred. The date is listed in month/day/ year order, and the time lists hours/minutes/seconds.

Site: If this activity happened at a reader, this shows the name of the site the reader is associated with.

Reader: If this activity happened at a reader, this shows the reader's name.

Address: If this activity happened at a reader, this shows the reader's address; this address should correspond with the name of the reader listed above. If this activity occurred in the HandNet program, this says 255.

Message Explanation: This shows some additional explanation of the message. For more explanation, see the complete list of activity messages starting on *Activity Messages* on page 116.

Type: Each message falls into one of ten categories. When you are creating an activity filter or custom activity report, you can limit your report or activity view to specific types of messages; see *Message Types* on page 111 for more detail.

Message: This shows the same message that you saw on the list in the *Activity* window.

User/Info: If this message is associated with a particular user, this shows the user's name and ID number.

Data: This shows technical detail about the message that is not relevant to your use of the program. This is occasionally useful to support in debugging a problem.

Acknowledged [checkbox]: This shows whether this message has been acknowledged yet. You cannot uncheck this box once it is marked. You also can check the box directly; you must use one of the three *Acknowledge...* buttons below.

Acknowledge This Message: This marks the message as acknowledged. After the message on the activity or alarm list, you will see *:ACK* followed by the name of the operator who acknowledged the message and the date/time when it was acknowledged. If this is an alarm, this also shuts the alarm off.

Acknowledge & Show Next: This acknowledges the current message and shows the next message. By next, we mean more recent in time; that is, the message above the current message on the activity list.

Acknowledge All Alarms: This button is disabled unless there is an alarm that has not been acknowledged yet. You might use this button if you see several related alarms on the list and you want to acknowledge them all at once.

More Info: This brings up the online help.

Next: This shows the message that occurred more recently in time, that is, the message directly before this on the activity list.

Previous: This shows the message that occurred before this message in time, that is, the message directly after it on the activity list.

* * * * *

Buttons on the
Activity Details
Screen

Getting to and Acknowledging Alarms

Getting to the Alarms List

Alarms are listed with the rest of the activity in the *Activity* window, but we have also provided a separate view with just the alarms. To see this view, click the *Alarms* tab at the bottom of the *Activity* window.

Acknowledging an Alarm

If an alarm is triggered in HandNet, do this to acknowledge it and turn it off.

1. If the *Activity* window is not shown, press *CTRL-A* or pick *Activity* from the *View* menu.
2. Double-click the alarm message with the bell icon next to it (you can see it both in the regular activity view or by clicking the *Alarm* tab at the bottom of the window).
3. Click one of the *Acknowledge...* buttons at the bottom left of the window (you cannot just click the checkbox by the word acknowledged; you must click one of the buttons). After the message on the *Activity* or *Alarm* list, you will now see *:ACK* followed by the name of the operator who acknowledged the message and the date/time it was acknowledged.
4. Take whatever action is appropriate in response to the alarm.

What Situations Cause Alarms

Which situations trigger alarms depends on which items are checked on the *Alarms* tab in the *System Settings*; see page 25.

* * * * *

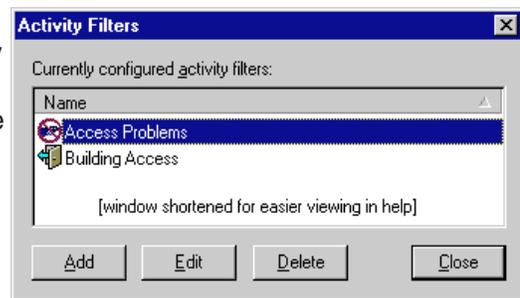
Creating and Printing Custom Activity Views

Creating a Custom Activity View

The main *Activity* window lists all activity that occurs: every access from every reader, every failed access, every user addition and enrollment, every alarm, and so on. Sometimes its useful to see less than this. For example, if you wanted to identify users who were having access problems, you might want to see only the *Identity Unknown* and *Access Denied* messages (the messages that can occur when someone enters a valid ID but then does not get a match on the hand). Or if you want to identify who has come in the building, you might want to see only *Identity Verified* messages and only for the readers that controlled entrances to the building.

You can create (and print reports on) custom views for these or any other subsets of activity, limiting the view to specific messages, dates, times, users, and/or readers. To create a custom activity view:

1. Click the *View* menu, and click *Activity Filter*. You see a list of any custom activity views if you have created any yet. This list looks like this, but the *filters* listed will be different.
2. Click the *Add* button to create a new filter (that is, a set of conditions that will filter out only the information you want to see). This takes you to the first *Activity Filter* screen (to change a filter you have already created, click the filter and then click *Edit*).
3. Give the filter a name, associate an icon if you wish, and then go to each tab where you want to include something less than all of the activity.



Each tab is initially set up to include all information; go to those where you want to limit or filter out particular information. For example, if you only want activity at certain readers, you would go to the *Readers* tab. If you only want certain messages, go to the *Messages* tab. The options on these tabs are explained, starting on page 107.

4. When you have entered all of the conditions needed, click the *OK* button at the bottom of the window.

To start this process, you could also right click on the bar at the bottom of the *Activity* window, and then pick *Add New Filter...*

Removing a Custom Activity View

This does not remove any activity from HandNet; it only removes the custom view of the activity.

1. Click the *View* menu, and click *Activity Filter*. You will see a list of any custom activity views you have created.
2. Click the view or filter to remove and click *Delete*.

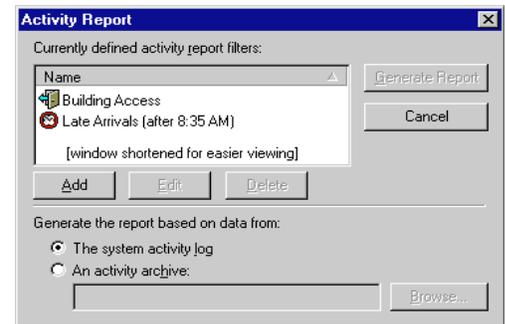
Printing an Activity Report Based on an Activity Window

1. Right-click on the bottom bar of the *Activity* window (where the *Activity* and *Alarms* tabs are).
2. Pick *Generate Report*.
3. In the report window that comes up, click the printer icon in the header; see *Printing or Viewing Reports* on page 127 for more detail.

Creating a Custom Activity Report from the Reports Menu

If you have not already created a custom activity view, or if you need to run the report on archived activity, then follow these steps to design the report.

1. From the *Main Menu* bar, click *File*, click *Reports*, and click *Activity....* You see a screen like this (if you created any custom reports they would be listed; your reports may be very different from the samples listed here).



2. Click the *Add* button to create a report (that is, a set of conditions that will filter out only the information you want to see). This takes you to the first *Activity Report* screen (to change a report you have already created, click the filter and then click *Edit*). The screens that you see are identical to those that you see when creating a custom activity view.
3. Give the report a name, associate an icon if you wish, and then go to each tab where you want to include something less than all of the activity.

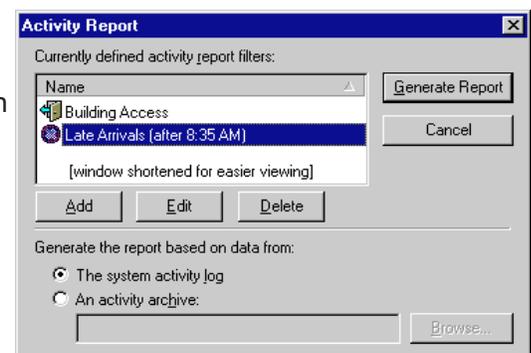


Each tab is initially set up to include all information; go to those where you want to limit or filter out particular information. For example, if you only wanted activity at certain readers, you would go to the *Readers* tab. If you only want certain messages, go to the *Messages* tab. The options on these tabs are explained starting on page 107.

4. When you have entered all of the conditions needed, click the *OK* button at the bottom of the window. This returns you to the list of reports.

Printing an Activity Report from the Reports Menu

1. From the main menu, click *File*, click *Reports*, and then click *Activity Reports*. You see a screen like this (if you have created any custom reports they would be listed; your reports may be very different from the samples listed here).



2. If you have not already designed the report, see *Creating a Custom Activity Report* from the *Reports* Menu above for help designing it.
3. Click the report in the list of reports at the top of the window.

4. At the bottom of the window, indicate which activity to generate the report from:

The system activity log: This includes all the activity that has occurred since the last time you archived activity (and that meets your report conditions).

An activity archive: This includes all activity that meets your report conditions that is in the archive file that you pick. Click the *Radio* button by this choice, click the *Browse* button, and pick the file. HandNet lists files that have an *.hna* extension. Pick the *Archive* file and click *OK*.

If the activity that you want is in several archive files, you will have to run the report several times, once for each archive file. If you need the information in a single report, you can export each report to a file and then use another program to combine the reports into a single file.

5. Click the *Generate Report* button. HandNet generates the report and shows it in a new window on the screen.
6. Click the *Printer* icon near the middle of the header to print the report, or click the icon with the envelope to export the content of the report to a file. You can export to a variety of formats including Word, Excel, Lotus 1-2-3, *.rtf*, text, and others; see *Printing or Viewing Reports* on page 127 for more detail.

If the printer icon is disabled and grayed-out, you do not have a printer set up yet on this computer (to set up a printer, go to the Windows *Start* menu, highlight *Settings*, pick *Printers*, and click *Add Printer*).

7. To close the *Report* window when done, click the *X* in the upper-right corner of the window.

* * * * *

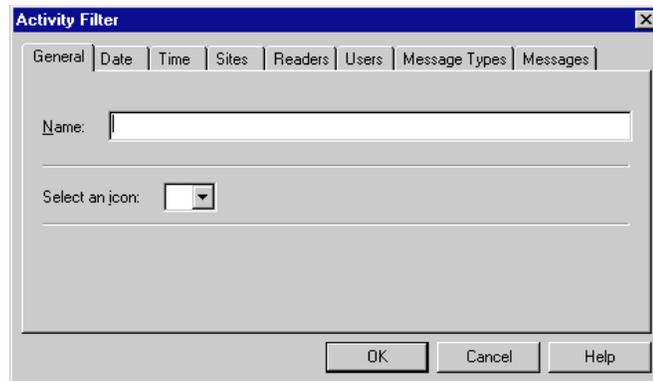
Condition Screens for Creating Custom Activity Views/Reports

When you create an activity filter (that is, a custom view of your activity; see page 104), or when you design a custom activity report (see page 105), you see the screen shown below.

Each tab is initially set up to include all information; you only need to go to those tabs where you want to limit or filter out particular information. For example, if you only want activity at certain readers, you would go to the *Readers* tab. If you only want certain messages, you would go to the *Messages* tab.

General

This screen contains the name and icon associated with activity filter or report.



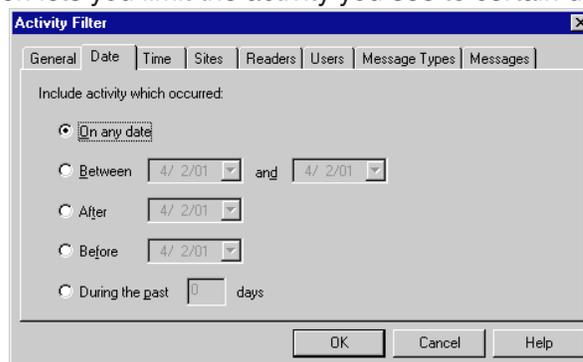
Name: Enter a name that describes the conditions that determine what activity will be included.

Icon: If you want an icon associated with this activity view/report, click the this entry. You do not have to choose an icon if you do not want to. If you do not want an icon, do not pick an icon; once you pick one, you cannot go back to having no icon.

Do not click *OK* until you have gone to the other tabs and set up those conditions that limit the activity.

Date

This screen lets you limit the activity you see to certain dates.



On any date: This includes activity from any date that is in the activity file. This is always the initial choice when you create a new report or activity filter.

Between: This includes any activity between the dates entered or on those dates. For example, if you chose *Between 05/01/01 and 05/31/01*, activity from both 05/01 and 05/31 would be included along with the activity in between.

After: This includes activity that is after the date that you enter, but not activity that is on or before that date. For example, if you enter *05/01/01*, you would see activity from *05/02* on, but activity on *05/01* would not be included (if you want the activity from *05/01*, you would have to enter *After 04/30*).

Before: This includes activity that is before the date that you enter, but not activity that is on or after that date. For example, if you enter *04/30/01*, you would see activity from *04/29* and before, but activity from *04/30* would not be included (if you want the activity from *04/30*, you would have to enter *Before 05/01*).

During the past: This is useful for creating a view that lists only the most recent activity. For example, you might create a view that only listed activity during the past week. If you want to be more precise, this same option is on the *Time* screen so that you could, for example, limit a view to the last twenty-four hours.

Time

This screen controls what times activity must occur to be included.

The screenshot shows the 'Activity Filter' dialog box with the 'Time' tab selected. The dialog has several tabs: General, Date, Time, Sites, Readers, Users, Message Types, and Messages. The 'Time' tab is active, showing options for including activity. The options are:

- At any time
- Between [15:41] and [15:41]
- After [15:41]
- Before [15:41]
- During the past [0] hours

 At the bottom of the dialog are buttons for 'OK', 'Cancel', and 'Help'.

On any time: This includes activity from any time. This is always the initial choice when you create a new report or activity filter.

Between: This includes any activity between the times entered or exactly at those times. For example, if you chose *Between 12:00 and 13:00*, activity that happened at exactly 12:00 or 1:00, PM along with the activity in between would be included. This goes from the earliest time to the latest time, regardless of which you enter first. For example, if you enter *Between 17:00 and 8:00* (hoping to get activity that was not during normal business hours), you would get the same activity as if you had entered *Between 8:00 and 17:00* (that is, activity that occurred during normal business hours). If you really want activity that is after 5:00 PM and before 8:00 AM, you would have to create two filters: one looking for activity after 17:00 and the other looking for activity before 8:00.

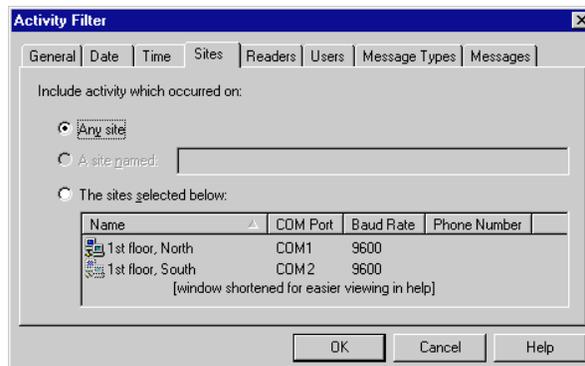
After: This includes activity that is after the time that you enter, but not activity that is exactly at that time. For example, if you enter 12:00, you would see activity from 12:00:01 (that is one second after 12) on, but activity at 12:00:00 or before would not be included.

Before: This includes activity that is before the time that you enter, but not activity that is exactly at that time. For example, if you enter 12:00, you would see activity from 11:59:59 (that is one second before 12:00) on, but activity at 12:00:00 or after would not be included.

During the past: This is useful for creating a view that lists only the most recent activity. For example, you might create a view that only listed activity during the past twenty-four or forty-eight hours (for longer periods, this same option is on the *Date* screen so that you could, for example, limit a view to the past thirty days).

Sites

This screen lets you limit the activity to certain sites.



Any site: Leave this selected to not limit the activity based on site.

A site named: This option is permanently disabled. To get activity for a single site, use the following option and only click one site in the list.

The sites selected below: To limit the report/view to specific sites, click this and then select the sites to include activity from.

To select a single site: Click that site in the list.

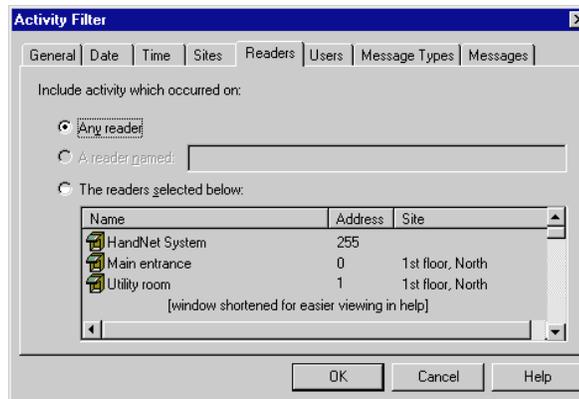
To select multiple sites that are together on the list: Click the first site in the group, hold the *SHIFT* key down, and with the *SHIFT* key down, click the last site that you want to select.

To select multiple sites that are not together on the list: Click the first site to select, hold the *CTRL* key down, and click each other site that you want to select.

If you select specific sites here, make sure you do not select readers from different sites on the *Reader* tab; if you select sites here and select readers from different sites, you will not see any activity with this filter. If you want to select specific readers, select *Any site* on this screen.

Readers

This tab lets you limit to activity that occurred at certain readers. For example, you might want to limit activity only to the readers controlling the entrances to the building so you could see who has come in. Or you might want to limit activity to the readers controlling the most secure areas so you could monitor them more closely.



Any reader: Leave this selected to not limit the activity based on site.

A reader named: This option is permanently disabled. To get activity for a single reader, use the following option and select only that one reader in the list.

The readers selected below: To limit the report/view to specific readers, click this and then select the readers to include activity from.

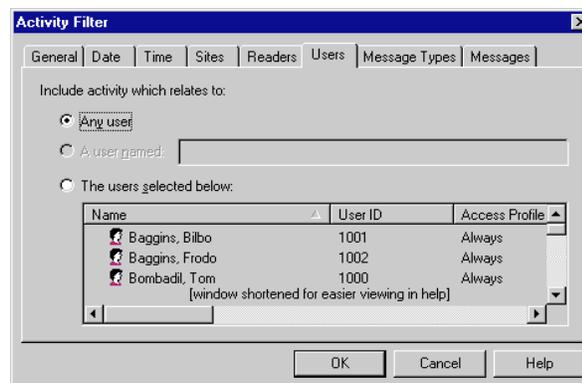
To select a single reader: Click that reader in the list.

To select multiple readers that are together on the list: Click the first reader in the group, hold the *SHIFT* key down, and click the last reader that you want to select.

To select multiple readers that are not together on the list: Click the first reader to select, hold the *CTRL* key down, and click each other reader that you want to select.

Users

This screen lets you limit to activity that occurred for certain users.



Any user: Leave this selected to not limit the activity to particular users.

A user named: This option is permanently disabled. For a single user, use the following option and select only that one user in the list.

The readers selected below: To limit the report/view to specific users, click this and then select the users to include activity for.

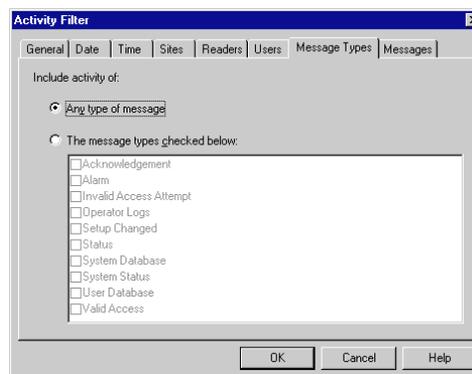
To select a single user: Click that user in the list.

To select multiple users that are together on the list: Click the first user in the group, hold the *SHIFT* key down, and click the last user that you want to select.

To select multiple users that are not together on the list: Click the first user to select, hold the *CTRL* key down, and click each other user that you want to select.

Message Types

This screen lets you limit the activity included to particular kinds of messages. If you need only specific messages within a category, use the *Messages* tab instead.



Any message: This includes activity regardless of what type of message it generates.

The messages types checked below: Click this and then check any message type to include. You can check more than one box to include multiple types of messages.

Acknowledgement: This does not list anything.

Alarm: This lists any message that generates an alarm. Which messages generate alarms is controlled by your choices on the *Alarms* tab in *System Settings*. If you change which messages generate alarms, messages that did not generate an alarm when they occurred will not be listed, even if they would generate an alarm now.

Invalid Access Attempt: This lists any message where someone tries to get access and cannot. This includes the messages *Identity Unknown*, *Access Denied*, and *Access Refused*, *Time Zone*.

Operator Logs: This lists when operators log in or log out of HandNet, and it lists invalid login attempts. It does not list the addition of new operators or changes to the operator settings; only when each operator uses the system.

Setup Changed: This lists any setup changes made directly using command mode at the reader. For setup changes made through HandNet, use *System Database*.

Status: This lists any messages that tell whether auxiliary input and output is on or off.

System Database: This lists all setting changes made through HandNet. This includes adding or changing sites and readers, changing system settings, changing time zones, holidays and access profiles.

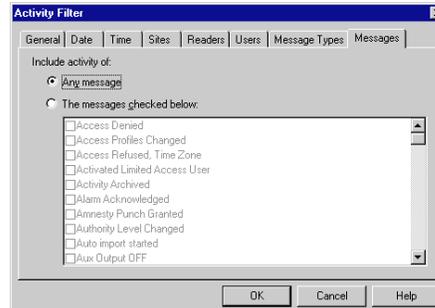
System Status: This lists messages related to when HandNet was started and exited, messages related to enrolling users, messages related to communication problems with readers, and messages related to information being downloaded/uploaded to/from readers.

User Database: This lists messages related to users being added, deleted, or changed. It does not include messages related to users being enrolled or attempted unauthorized enrollments.

Valid Access: This lists *Identity Verified* messages.

Messages

This screen lets you limit the report or activity view to specific messages. For example, if you were trying to track who came into the building, you might select the building entrances on the *Readers* tab, and then choose only the message *Identity Verified* here. Or if you were trying to track access problems, you might limit the output to the messages *Access Denied* or *Identity Unknown*. If you want all of the messages in a particular category, you may find it easier to use the *Message Types* tab instead.



Any message: This includes activity regardless of what message it generated.

The messages checked below: Check any message to include. See the list of activity messages starting on page 116 for an explanation of what causes each message. Not all of the messages include what you would expect. For example, the message *Authority Level Changed* does not include users whose authority level was changed on the *Security* screen in *User Properties*; it only includes users whose authority level was changed using the command menus on a reader, which is not how you would typically change a user if you use HandNet. Many of the messages are like this. If you want all of the messages in a particular category, you may find it easier to use the *Message Types* tab instead.

* * * * *

Archiving Past Activity

What Archiving Is

Archiving is moving past activity from the *Current Activity* file to a separate file. This keeps the *Activity* file smaller (and faster) while still keeping the information available for reports if needed. You can set HandNet to remind you to make archives using the *Archives* tab in the *System Settings*; see page 26.

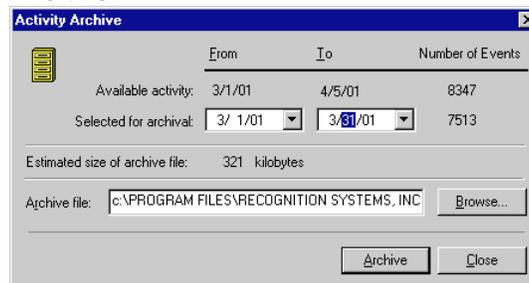
To generate an activity report on activity that is archived, you must indicate that you want to generate the report based on an activity archive (and then pick the appropriate archive).

Effect of Archiving on Reports

When you archive, HandNet removes activity from the current activity file and stores it in a different file. When you generate an activity report, you can use the current activity file OR one of your archive files, but you cannot include activity from more than one file in a single report. This means, for example, that if you make an archive once a month, you cannot generate a single report that looks at the previous year's activity; you would have to generate twelve reports, one for each monthly archive file. If you want an entire year's information in a single report, do not archive until the year is done, so all activity for the year will be in a single file.

Making the Archive

To make an archive of past activity, click the *File* menu and then click *Archive*. You see a screen like this:



Available activity: This shows the date of the earliest activity in the activity file and the date of the most recent activity (usually today's date). On the right you will see the total number of events or activities currently in the file.

Selected for archival: This lets you choose the date range to include in the archive. The *From* date is initially set to the date of the earliest activity in the file; you do not normally want to change this date. The *To* date is initially set to today's date; you might sometimes want to make this earlier to keep more activity in the file. For example, suppose you make an archive on the fifth of each month for the previous month. You could change the *To* date to the last day of the previous month so that activity from the beginning of the current month would not be archived yet. Even if you leave the *To* date set to the current date, HandNet may not actually go up to that date: on the *Archives* tab in the *System Settings* there is an entry *Do not archive the latest ___ events*. The archive process keeps at least that many events in the current activity file, even if some of those events are before the date you enter here.

Estimated size of archive file: This is the approximate size that the archive file will be.

Archive file: This lists the name and location of the file that will be created. HandNet uses the location that you have entered for the *Default Archive Directory* on the *Archives* tab in the *System Settings*; see page 27. HandNet names the file using year/month/day hour/minute/seconds. For example *HN Activity Archive 20010406 094542.hna* is the default name for a file made on April 6, 2001 at 9:45 (and 42 seconds) AM. If you sometimes need to generate reports on past activity, and you do not find this naming method very clear, you can change this name. For example, if the archive contained information from the previous month, you might name it something like *Archive March, 2001.hna*. You must keep the *.hna* extension for HandNet to be able to find the file when you want to generate a report on it.

Once all entries are correct, click the *Archive* button to make the archive.

* * * * *

Exporting Activity

Why Export Activity

If you want to create custom activity reports using some external report tool, *Export Activity* on the *File* menu sends all of your current activity to an Access database file called *expactvt.mdb*. While the main HandNet database files are password protected for security reasons, this file is not, so you can open it (if you have Microsoft Access) and use any information in it. If you are only going to generate reports with *Activity Reports* on the *File* menu, you do not need this option; using it would only create a file that you do not need.

This option only exports current activity, not activity that you have archived, so if you plan to use this option you probably should check the *Export Transactions* box on the *Archive* tab in *System Settings*; see page 27. This causes activity to be automatically exported whenever you archive activity.

You only have access to this option if you have purchased the upgrade to full feature set of Version 2.0.

When you choose *Export Activity*, HandNet pops up a box that tells you how many activity records are going to be exported. Click *OK* to continue.

Avoiding Exporting the Same Information Twice

If you export activity and then export activity again without having archived the activity you exported last time, you will end up with duplicate records in that export file. That is, you will find the same activities listed more than once.

To avoid duplicate activity in the export file you can do one of two things:

- You can export activity and then immediately archive ALL activity. That way, the next time you export activity, the activity that was exported last time will not be in the current activity file, so it will not be exported again.
- If you do not want to archive activity after exporting (you might want to keep more activity in the current activity file so that you could see it in *custom activity* views or create reports that included a longer range of activity), delete or rename the last activity export file (*expactvt.mdb*) before exporting again. If you delete or rename this file, HandNet creates a new *expactvt.mdb* file when you export, and this new file will only contain the information from this export and not what you exported last time.

* * * * *

Activity Messages

You see activity messages in the *Activity* window. You can limit the activity in a custom activity view or in an activity report by checking the corresponding messages on the *Messages* tab in the filter/report design (see page 112). And you can control which messages cause alarms using the *Alarms* tab in the system settings (see page 25).

We have explained the messages in more detail here.

Command Menus in the Reader

Readers have built-in menus that let you change the settings in the reader. Some of the messages below can only occur if you make changes through these menus on the actual readers; you should not typically see these messages. Except for initially setting up the reader to communicate with HandNet, for recalibrating the reader, and for enrolling a user from the reader, you should NOT make changes to the reader through the reader command menus; you should control all other reader settings from within HandNet. See the HandKey manual for more about the reader menus.

Activity Messages

Access Denied: Someone repeatedly entered a valid ID at a reader, and each time the reader did NOT recognize the user's hand (at the reader, the user will see the message *ID Refused*). The number of times that a user can try before getting this message depends on the *Number of Tries* entry on the *Settings* tab in the *Reader Properties*; see page 47. If access is denied for a user, the reader will not accept that ID again until another user has successfully gained access at that reader.

Access Profiles Changed: Someone has changed one or more access profiles. During initial setup, this is a normal message. If you were not expecting access profiles to change, this could be an indication that someone was trying to give inappropriate access.

Access Refused, Time Zone: A valid ID was entered at a reader, but the user is not authorized to have access during the hours or days of the week based on the time zone associated with the reader in the access profile.

Activated Limited Access User: A user was set up with access for a limited date/time range. The computer's date and time matched the date/time the user was scheduled to start having access, so HandNet made the user active and sent the user's information to each appropriate reader so the user could access; see page 93 for more about limited access.

Activity Archived: The operator used the *Archive* option on the *File* menu; (see page 113 for more on archiving past activity).

Alarm Acknowledged: An alarm occurred, and an operator went to the *Alarm Properties* screen and clicked one of the acknowledge buttons (following the message on the activity or alarm list, you will see *:ACK* followed by the name of the operator who acknowledged the alarm and when it was acknowledged); see page 103 for more on acknowledging alarms.

Amnesty Punch Granted: You should not see this message.

Authority Level Changed: A user's authority level was changed from the reader's command menu (typically you would change a user's authority

level from the *Security* tab in the *User Properties*; if you change the authority level there, you just see the message *User Record Changed*).

Auto Import Started: An *import.mdb* file (which contains users to import) was found, and HandNet was set up to automatically import users, so HandNet started importing them. Whether HandNet automatically imports users is controlled by the *Enable* box under *Auto Import* on the *User Import/Export* tab in *System Settings*; see page 28.

Aux Output OFF: The auxiliary output has been turned off.

Aux Unlock Via Wiegand Keypad: The auxiliary output has been turned on by a valid ID number at a remote keypad.

Auxiliary Input ON: The auxiliary input on the reader has been activated.

Auxiliary Output ON: The reader has turned on an auxiliary device (like an alarm) that is connected to the reader.

Auxiliary Output Setup Changed: The timing and clearing of an auxiliary output activation has been changed.

Baud Rate Changed: The communications baud rate has been changed using the command menus at the reader.

Command Mode Entered: Someone entered the command mode at a reader. Readers have built in menus that let you change the reader settings. These command menus are mainly needed when someone is using the readers without the HandNet program; HandNet controls most settings in the reader for you. The only tasks you should need to do through the reader command menus are setting up the reader's address and communication settings during initial setup, recalibrating the reader, and enrolling users at the reader if you are not using the *Enroll* option on the *Reader* menu.

Data Base Restored: You should not see this message.

Data Base Saved: You should not see this message.

Data Downloaded to Reader: Someone used one of the *Download* options on the *Reader* menu to send information to the reader; see page 60. Unless there was some problem with the reader that is being corrected, this is not usually necessary; HandNet usually automatically sends all information to the reader that the reader needs.

Data Log Buffer Empty: You should not see this message.

Deactivating Limited Access User: A user was set up with access for a limited date/time range. The computer's date and time matched the date/time the user's access was supposed to end, so HandNet made the user inactive and sent the appropriate information to readers so the user could no longer gain access, see page 93 for more about limited access.

Door Forced Open: A door was forced open without a valid ID and hand recognition at a reader.

Door Open Too Long: A door was kept open for longer than was allowed

based on the time entered in the *Door Switch Shunt Time* on the *Configuration* tab in the *Reader Properties*; see page 48.

Duress Alarm: A user entered the duress code, a code that indicates that the user is in trouble or that someone is forcing the user to give him/her access; see page 47 for more about duress codes.

Exit Granted: The user is permitted to exit.

Extended Datalog: Someone entered command mode on the reader and changed settings that do not have specific messages associated with them (for example, you get this message if you change the language of the reader's display or the format of the date on the reader).

HandNet Exited: Someone picked *Exit* from the *File* menu to shut HandNet down. Under normal circumstances, HandNet is left running continually so it can monitor activity and immediately process any alarm messages. If someone exited HandNet to install a new Version of the program or to perform maintenance on the computer it is on, there is probably no problem; if someone exited the program at some other point, this could be an indication of an attempt to get around security.

HandNet Started: Someone started the HandNet program. Under normal circumstances, HandNet is usually left running continually so it can monitor activity and immediately process any alarm messages. If someone exited HandNet to install a new Version of the program or to perform maintenance on the computer it is on and then restarted, then there is probably no problem. If you see the message *HandNet Started* but you do not see the message *HandNet Exited* earlier in the list, then someone exited the program and restored an older Version of the activity files; this could be an indication that someone is trying to hide activity.

HandNet+ File Converted: Someone used *Convert HandNet+* on the *File* menu to convert users from HandNet+ into HandNet for Windows (HandNet+ was an MS-DOS predecessor to HandNet for Windows); see page 98 for more on converting users from MS-DOS Versions of HandNet.

Holiday Table Changed: Someone has added, changed, or deleted a holiday with the *Holidays* option; see page 65 for more about setting up holidays.

Identity Unknown: Someone entered a valid ID at a reader, but the reader did not recognize the user's hand.

Identity Verified: At a reader, a user entered a valid ID and the reader recognized the user's hand and gave access.

Invalid Operator Login Attempt: Someone tried to log into HandNet but entered an invalid user name or password. This could occur if someone just typed the name or password incorrectly, or it could mean that an unauthorized person was trying to get into the program.

Leave Command Mode: Someone exited or left command mode at a reader. Readers have built-in menus that let you change the reader settings. These command menus are mainly needed when someone is using the readers without the HandNet program; HandNet controls most settings in the reader for you. The only tasks you should need to do through the reader command

menus are setting up the reader's address and communication settings during initial setup, recalibrating the reader, and enrolling users at the reader if you are not using the *Enroll* option on the *Reader* menu.

Lock Output OFF: Someone chose *Relock* from the *Reader* menu to relock an unlocked door; see page 128 for more about locking and unlocking doors.

Lock Output ON: Someone chose to unlock a door using one of the *Unlock* options on the *Reader* menu; see page 128 for more about locking and unlocking doors.

Lock Setup Changed: Using the command menus in the reader, someone changed the number of seconds the lock should be unlocked for or the number of seconds the door is allowed to be open (normally this is changed in HandNet on the *Configuration* tab in *Reader Properties*; if it is changed there, you just see the message *Reader Properties Changed*).

Manual Import Started: The operator selected *Import Users* to import users from the *import.mdb* file; see page 99 for more about importing users (when you must import users manually or whether HandNet imports them automatically is controlled by the *Enable* box under *Auto Import* on the *User Import/Export* tab in *System Settings*; see page 28).

Maximum ID Length Changed: Someone changed the maximum length for a user ID using the command menus in the reader (if you changed the ID length on the *Settings* tab in the *Reader Properties*, you would just see the message *Reader Properties Changed*).

Memory Cleared: Someone used the *Clear Memory* option from the *Command* menus in the reader. This erases all the users from the reader (typically you would do this if you were changing the use of the reader and wanted to make sure that those who previously had access through this reader no longer had access through it).

Messages Read: You should not see this message.

No Hand Read For Card: You should not see this message.

Operating Mode Changed: The operating mode of the reader has been changed using the command menus in the reader.

Operator Added: A new operator (someone authorized to use HandNet) was added on the *Operators* tab in *System Settings*; see page 24 for more about adding operators.

Operator Deleted: An operator (someone authorized to use HandNet) was removed from the *Operators* tab in *System Settings*; see page 24 for more about deleting operators.

Operator Login: An operator logged into HandNet.

Operator Logout: An operator logged out of HandNet.

Operator Properties Changed: Someone changed the tasks that an operator is allowed to do on the *Operators* tab in *System Settings*; see page 24 for more about controlling which options an operator can use.

Output Mode Changed: The output mode of lock output or card reader emulation has been changed using the *Command* menus in the reader.

Passwords Changed: Someone changed the passwords for the reader *Command* menus, using the command menus in the reader. Generally this setting is controlled from HandNet on the *Passwords* tab in *Reader Properties* rather than from the reader (if you change this or other settings for the reader in HandNet, you just see the message *Reader Properties Changed*).

Printer Setup Changed: If a serial printer is attached to the reader, the printer settings have been changed using the command menus in the reader.

Reader Action Failed: HandNet was unable to complete a communication attempt with the reader. This could be an indication that the connection to the reader is not set up correctly; see the *Troubleshooting* resolving this error.

Reader Added: A reader was added to HandNet.

Reader Connection Failed: HandNet was not able to establish communications with the reader. This could be an indication that the connection to the reader is not set up correctly; see *Troubleshooting* resolving this error.

Reader Connection Timeout: HandNet lost its connection with the reader. This could be an indication that the connection to the reader is not set up correctly; see the troubleshooting for help resolving this error.

Reader Data Uploaded to HandNet: Someone used *Upload Users* on the *Reader* menu to get user information from the reader; see *Getting User Information from a Reader* on page 99.

Reader Deleted: A reader was deleted from HandNet.

Reader Properties Changed: Someone went to the *Reader Properties* and changed the settings on one of the tabs there. HandNet does not keep track of which settings were changed. For more about *Reader Properties*, see page 45.

Record Imported for Creation: An new user was added to HandNet by the import process.

Record Imported for Deletion: A user that was already in HandNet was deleted based on information in the *Import* file.

Record Imported for Modification: A user that was already in HandNet was changed to match a user with the same ID in the *Import* file.

Record Imported, Empty Template Overwrote Local Enrollment: A user that was not enrolled was imported. This replaced an enrolled user, so the user is not longer enrolled in HandNet. You can prevent enrolled users by being replace by either preventing the exporting computer from exporting users that are not enrolled yet, or by changing the import settings so non-enrolled users cannot replace enrolled ones; see the explanation for the *Import/Export* settings on page 28.

Reject Override Changed: Someone changed the reject threshold for an individual user using the command menus in the reader. Generally this setting is controlled in HandNet with the *Override* setting on the *Security* screen in *User Properties*; HandNet users would not typically change this at the reader (if you change this or other user settings in HandNet, you just see the message *User Properties Changed*).

Reject Threshold Set: Someone changed the reject threshold using the command menus in the reader. Generally this setting is controlled from HandNet using *Reject Threshold* on the *Configuration* tab in *Reader Properties* rather than from the reader (if you change this or other settings for the reader in HandNet, you just see the message *Reader Properties Changed*).

Remote Enrollment Started: A user was enrolled with the *Enroll* option on the *Reader* menu (for users enrolled from the *Command* menu on the reader, you see the message *User Enrolled*); see page 87 for more about enrolling users.

Report Engine Unavailable: You should never see this message.

Request to Exit Activated: A user has pressed the *Request to Exit* button in order to get out of the secure area.

Score Is: You should never see this message.

Site Added: A site was added to HandNet.

Site Code Changed: The site code was changed using the *Command* menus in the reader.

Site Connected: HandNet is set up to connect with the site by modem, and HandNet connected to the site.

Site Deleted: A site was deleted in HandNet.

Site Disconnected: HandNet is set up to connect with the site by modem, and HandNet disconnected from the site when it was done communicating with the site.

Site Properties Changed: In HandNet, one or more changes were made to the *Site Properties*; for more about *Site Properties*, see page 34.

Special Enrollment: The *Command* menus in the reader was used to enroll a user who does not require hand recognition to gain access.

Supervisor Override: You should not see this message.

System Re-calibrated: Someone recalibrated the reader; see page 124.

System Settings Changed: Someone changed one or more entries on one of the *System Settings* tabs that you get to with settings on the *View* menu; for more about system settings, see page 22.

Tamper Activated: Someone has shaken the reader roughly or has opened the reader. Unless someone was servicing the reader, this message generally

warrants further investigation.

Time and Date Set: Someone changed the time and date in the reader using the command menus in the reader (generally, rather than changing date and time in the reader, you would just make sure that the date and time were correct in the computer and then send the date and time to the reader using *Download Time* on the *Reader* menu).

Time Restrictions Turned On/Off For All Users: You should not see this message.

Time Zone Data Changed: Someone changed a time zone using the *Command* menus in the reader. Generally this setting is controlled with the *Time Zone* settings in HandNet and not changed at the reader (if you change time zones in HandNet, you see the message *Time Zones Changed*).

Time Zones Changed: In HandNet, someone changed *Time Zones*; see page 61 for more on setting up *Time Zones*.

Two Man Timeout: Two people were required to verify at the reader, and they have not done so within the permitted time period.

Unable to Close Communications Port: HandNet was unable to close the *Serial Communications* port.

Unable to Install Communications Port or Unable to Open

Communications Port: You get this message if HandNet tries to establish communication with a reader through a serial port and it cannot. Generally this only happens if you are running another program that is already controlling that serial port. You cannot have two different devices connected to the same port, so if a reader really is connected to that port, nothing else should be. Either you have selected the wrong port on the *Connection* tab in the *Site Properties*, or the other program that you are running has the wrong port selected. If you were previously running another program (especially one trying to connect to a modem, fax, or printer), it is possible that the other program tried to use the port and did not close it properly. Make sure that other programs that might try to control the port are closed. If the problem still exists, trying shutting everything down and restarting the computer.

Unable to Retrieve Datalog: An attempt to get information from the reader failed.

Unauthorized Enrollment Attempted: Someone tried to enroll a user at a reader and the user had not been added to HandNet yet. Your settings do not allow this (to change your settings so this is allowed, check the box by *Do not delete unauthorized enrollments* on the *Security* tab in *System Settings*; see page 23).

Unit Address Changed: Someone changed the address of the reader using the command menus in the reader.

User Added From Card: You should not see this message.

User Database Field Added: Someone went to the *Custom* tab in the *User*

Database properties and added a new custom entry; see page 97.

User Database Field Deleted: Someone went to the *Custom* tab in the *User Database* properties and removed a custom entry.

User Database Import Finished: The process of importing users (from the *import.mdb* file) is done.

User Enrolled: A user was enrolled using the command menu on the reader (for users enrolled with the *Enroll* option on the *Reader* menu, you see the message *Remote Enrollment Started*); see page 87 for more about enrolling users.

User Record Added: A user was added in HandNet.

User Record Changed: *User Properties* were changed for a user in HandNet. The change could be on any of the three tabs of user information; see page 90 for more on user properties.

User Record Deleted: A user was deleted in HandNet.

User Removed: A user was removed using the command menus in the reader. A user who was removed in this way is only removed from that one reader; the user is not removed from HandNet or from any other reader. If you ever download users to a reader, the user will be added to the reader again if the user is still in HandNet (to remove a user from HandNet, click the user on the list of users and press the *DEL* key. Removing a user from HandNet generates the message *User Record Deleted*).

Users Listed: Someone listed users using the command menus in the reader (if you want a list of users, its generally much easier to just look at the list of users in HandNet or to print the *Users* report; see page 13).

Users Time Zone Changed: When a user can access the reader was changed from the command menus in the reader (typically, this is not changed at the reader; you would instead change the user's access profile on the *Security* tab in *User Properties* to change when the user has access to particular readers. If you did this, you would see the message *User Properties Changed*).

* * * * *

Other Ongoing Activities

Reader Maintenance

Cleaning Readers

You should periodically clean hand readers; if you do not, users may get rejected more often.

Spray any ordinary, non-abrasive cleaner on a clean cloth, and then use the cloth to wipe the platen, the mirror and reflector on the sides of reader, and the window above the platen. When wiping the platen, start from the back corners and wipe forward.

Never spray cleaning fluid directly onto the reader! Always spray a cloth and then wipe the reader with the cloth.

Never use an abrasive or gritty cleaner! An abrasive cleaner could scratch the reader; this would damage it.

Recalibrating Readers

If users are often being rejected at a particular reader, try recalibrating it. To do this:

1. Check the list of users to make sure you have an authority level of one or higher. If you have an authority level of *None*, you cannot do this (to change your authority level, double-click your name on the list of users, click the *Security* tab, click the *Authority Level* entry, and select the appropriate level).
2. Go to the reader to be recalibrated, and enter command mode on the reader:

If you have a HandKey II or HandKey CR reader: Press *CLEAR*, and then press *ENTER*.

If you have an ID3D HandKey reader: Press # AND * (you can press them at the same time, or one after the other).

The display on the reader should look like this:



READY
* :

3. Type your *User ID* number (the same one you enter to get access through the reader), and press *ENTER* or #. The reader asks you to place your



ENTER PASSWORD

hand. Once it recognizes your hand, this display looks like this:

4. Type *1* and press *ENTER* or *#* (this is the standard password for the *Service* menu in the reader; if you have changed this on the *Passwords* screen in the *Reader Properties*, enter the password you have set up). The display should now look like this:

```
CALIBRATE
* NO YES #
```

If the reader shows the *READY* screen again instead of this screen, either you placed your hand improperly or you do not have the rights to do this; carefully check step one again.

5. Press the *YES/#* button. This display should now look something like this:

```
r0 c0 e100 s
RECAL (Y#/N*)?:
```

(The actual numbers on the first line may be different).

6. Press the *YES/#* button again. After telling you to please wait, you will see the *Calibrate No/Yes* display again. At this point, the reader should be recalibrated.
7. Press the *CLEAR* button to leave the *Service* menu and return to the reader to its normal display.

* * * * *

Making Backups

Why Make Backups

Occasionally computer hard drives fail, losing the information on them. Occasionally computer files get damaged, making the information in them unusable. And occasionally computer users make mistakes and delete information they should not. A backup is an extra copy of the information on your computer, so that if the information gets damaged or lost, you have another copy to protect you.

The information in HandNet—information about readers, access profiles, and users—represents many hours of work. The record of activity (including archived historical activity) is often an important security record. So you should protect your many hours of work by periodically making a backup copy of this information.

Making Backups a Scheduled Event

In practice, many computer users understand that backups are important, but they still go months or even years without actually making one. Then, when a problem occurs, the backup they have is so old that it does not save them all that much work. The way to avoid this is to make backing up your information a scheduled part of your routine. How often you need to make them depends on how many changes to the information you make. If you are continually adding and removing users, a weekly backup might be appropriate. If you make fewer changes and losing a month's changes would not be that hard to redo, a monthly backup might be enough. Regardless, decide how often to make a backup, and then put it on your calendar; do it every Friday morning, or every month before you print your activity reports. If you do not schedule backups, they probably will not happen. And if you do not make them, sooner or later most computer users regret it.

How to Make a Backup of Your HandNet Information

You should periodically be making backups of all the information on your computer. How to best do that is beyond the scope of these instructions. Here, we will just tell you how to make a backup of your HandNet information.

1. Use *Windows Explorer* to go to the folder HandNet is in (if you installed HandNet in the standard location, it is in *C:\Program Files\Schlage Biometrics, Inc\HandNet for Windows*).
2. Make a copy of all of the Microsoft Access Database files (*.MDB) and all of the HandNet Activity Archive files (*.HNA) in this directory. You can copy these files to a floppy disk or to a network drive. If the files are large, WinZip is a helpful and inexpensive utility that lets you both compress a number of files into a single archive and spread the archive over a number of disks if needed (to get WinZip, go to www.winzip.com. For help making an archive span several floppy disks, look up “spanning” in the index of WinZip’s help).

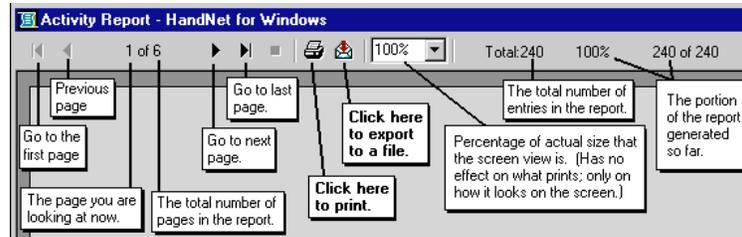
The best protection is to store the backup disks in a different place than the computer. That way, if the computer is damaged by fire or water, or if the computer equipment is stolen, there is no chance of the backup disks being damaged or taken.

* * * * *

Reporting and Exporting Information

Printing or Viewing Reports

Whenever you generate a report, HandNet shows the report in a new window. The header of that window lets you move from page to page, print the report, or export the report to a file. The header looks like this:



To print the report: Click the printer icon near the middle of the header to print the report.

If the printer icon is disabled and grayed out, you do not have a printer set up yet on this computer (to set up a printer, go to the Windows *Start* menu, highlight *Settings*, pick *Printers*, and click *Add Printer*).

To export the report to a file: Click the icon with the envelope. You can export to a variety of formats including Word, Excel, Lotus 1-2-3,rtf, text, and others.

To close the report window when done: Click the X in the upper-right corner of the window.

Getting Information from HandNet Database Files

Exporting activity to an access database file

HandNet for Windows stores information in access database files (*actions.mdb*, *activity.mdb*, and *HandNet.mdb*). These files are password-protected for security; we do NOT ever give these passwords out for any reason. If we did, it would put the integrity of your security at risk.

However, HandNet can export activity to an access database file that is not password protected so you can open it and access any information in it at will. If you want to create custom activity reports using some external report tool, *Export Activity* on the *File* menu sends all of your current activity to an access database file called *expactvt.mdb*.

Exporting the content of any report to various formats

To save HandNet information to a file, you can also generate any *Activity Report* or other report on the *Reports* menu and, when you see the report on the screen, click the *Export* button.



You will then be able to save the content of the report in a number of different formats so you can import it into other programs. These formats include: character-separated values, comma-separated values, Crystal Reports, Data Interchange Format (DIF), Excel (Versions 5.0, 7.0, or 8.0; either extended or not), Lotus 1-2-3 (WK1, WK3, or WKS), Access 97 database, paginated text, record style (columns of values(report definition, Rich Text Format (RTF), tab-separated, text, or Word for Windows)).

* * * * *

Locking and Unlocking Doors

Automatically Unlocking a Door on a Scheduled Basis

If you regularly want a door unlocked during certain hours:

1. If you have not already done so, set up a time zone that corresponds to the days and times you want the door unlocked.
2. Select the reader(s) in the list of readers.
3. Pick *Reader* from the main menu, and then pick *Properties* from the *Reader* menu.
4. Go to the *Configuration* tab.
5. In the *Auto Unlock Time Zone*, choose the time zone when the door should be automatically unlocked. HandNet automatically unlocks the door at the beginning of the time zone, and locks it again at the end of the time zone.

Unlocking a Door on a Non-Scheduled Basis

Unlock on the *Reader* menu lets you unlock a door without setting it up to be regularly unlocked.

1. Select the reader(s) in the list of readers.
2. Pick *Reader* from the main menu, and highlight *Unlock* on the *Reader* menu. You will see another menu with two choices: *Indefinite* and *Timed*.

To unlock a door so that it stays unlocked until you lock it again:

Choose *Indefinite*. This leaves the door unlocked until you lock it again with *Relock* on the *Reader* menu.

To unlock the door momentarily: Choose *Timed*. This unlocks the door connected to that reader only for the number of seconds specified in *Lock Open For* on the *Configuration* tab in the *Reader Properties* (that is, it unlocks the door for the same number of seconds that the door would be unlocked if it were opened by a reader).

Locking a Door so it cannot be Opened from the Reader

Lockup on the *Reader* menu disables the lock on the door for the selected reader. The reader will still let users enter their ID numbers and still verify hands, but the door will stay locked and will not open even for valid users. No one will be able to open the door from the reader until you choose *Unlock* or *Relock* from the *Reader* menu.

Locking an Unlocked Door

If you have unlocked a door with *Unlock*, *Indefinite* on the *Reader* menu, *Relock* locks it again (if you unlocked the door using *Unlock*, *Timed* on the *Reader* menu, the door automatically relocks after the number of seconds specified in *Lock Open For* on the *Configuration* tab in the *Reader Properties* just as it would if the door were unlocked by the reader, so you do not have to anything special to relock it).

If you have disabled access through a door with *Lockup* on the *Reader* menu, *Relock* releases so the reader can open it again.

* * * * *

Turning an Auxiliary Device On or Off

HandNet can be set up to automatically turn on external auxiliary devices when certain conditions occur. For example, it might trigger an alarm, turn on lights or a security camera, and so on.

HandNet can turn an auxiliary device on automatically when certain conditions occur. When this can happen is controlled by the *Auxiliary (AUX) Settings* tab; see page 48 (the HandKey II and HandKey CR support up to three auxiliary devices; this option only controls the first of these, the same one controlled by the *Auxiliary Settings* tab in *Reader Properties*. The other two are only controlled by the *Extended Settings* tab in *Reader Properties*).

Manually Turning an Auxiliary Device On

Auxiliary Output on the *Reader* menu lets you manually turn an auxiliary device on or off without anything happening at the reader. For example, suppose a reader, in addition to being connected to a door, is also connected to an auxiliary light. You could use this option to turn the light on without doing anything at the reader.

To turn on an auxiliary device that is connected to a reader:

1. Click a reader in the right pane of the *Network* window (if the *Network* window is not shown, press *CTRL-N* to open it).
2. Click *Reader* from the main menu bar at the top of the screen.
3. Click *Auxiliary Output* on the *Reader* menu, and then click *On*.

Manually Turning an Auxiliary Device Off

If you have manually turned an auxiliary device on, or if an alarm condition has turned it on, you can also turn the device off from HandNet. For example, suppose an auxiliary alarm is connected to the reader, and suppose the alarm is set to sound for fifteen minutes after the condition occurs. You could use this option to turn the alarm off before the fifteen minutes was done.

To turn off an auxiliary device that is connected to a reader:

1. Click a reader in the right pane of the *Network* window (if the *Network* window is not shown, press *CTRL-N* to open it).
2. Click *Reader* from the main menu bar at the top of the screen.
3. Click *Auxiliary Output* on the *Reader* menu, and then click *Off*.

* * * * *

Troubleshooting

Answers to Common Questions

Enroll Option Disabled

If the *Enroll* option on the *Reader* menu is disabled or grayed out, there are several possible reasons. Check each of the following:

1. Make sure you are logged in. If you are not logged in, you cannot change anything.
2. Make sure that you have selected a reader on the list of readers. Since enrollment has to be done at a reader, you must pick the reader to enroll at before the enroll option will work (to see the list of readers, type *CTRL-N* or pick *Network* from the *View* menu).
3. Pick *About HandNet for Windows...* from the *Help* menu. Check the bottom of the box that pops up. To be able to use the enroll feature, the last line must say *You may use all features of this software*. If this line says *Your current license does not let you use the enroll...*, you must contact your dealer and upgrade your license before you can use this feature (once you upgrade, we will send you an access code that makes the feature available). If you do not upgrade to the full feature set, you must start the enrollment process using the command menus in the reader; see page 87.
4. Check with your supervisor to see if you are authorized to enroll users (for you to be authorized to enroll users, *Reader Data Download* must be checked in the *Access Rights* for the operator in *System Settings*).

No Current Record Message

You get the message *No Current Record* when you start HandNet if you have not added any users yet. This message stops occurring once you add a user; see page 74 and following for help adding users.

Problems Connecting to a Site by Modem

If you are having trouble getting HandNet to connect to a site by modem, check each of the following:

1. Click the site in the left pane of the *Network* window, pick *Properties* from the *Site* menu, and click the *Connection* tab.
2. Make sure you have picked the serial port that the modem is connected to; if this is set to *None*, HandNet will not connect.
3. Make sure the *Baud Rate* in *Site Properties* in HandNet matches the baud rate the reader is set up for. We recommend 9,600 for a HandKey II or HandKey CR and 2400 for a HandKey reader.
4. Make sure the phone number is entered correctly. If you have to dial some digit to get an outside line, enter this digit followed by a comma before the phone number. If the number is a long distance number, make sure you have entered the 1 and the area code as appropriate. For example, if you

have to dial *9* for an outside line, and the number was a long distance call that required by *1* and an area code, you would enter the number like this:

9, 18025551212

5. Make sure the modem is hooked up to a phone line.
6. Make sure the phone line is plugged into the right jack on the modem connected to your computer (most modems have two jacks: one labeled *Line* and one labeled *Phone*. The phone wire from the phone jack on the wall must connect to the jack on the modem labeled *Line*).
7. Make sure the phone line has a dial tone (hook up a regular phone to the modem jack labeled *Phone* to see if you hear a dial tone; if you do not, there is a problem with the jack or phone line).
8. Make sure no other phone, fax machine, or modem is trying to use the same phone line.
9. Make sure call waiting is not on for this line.
10. On the *Schedule* tab in *Site Properties*, make sure you have set up a time for this site to connect. Make sure this connection time is enabled (checked).

Program Claims to be a Demonstration Version

When HandNet for Windows is installed, it is in demonstration mode: it gives you full functionality for fourteen days, and after that it limits the use of certain features.

If you purchase a previous Version of HandNet for Windows, you are also authorized to use this Version, but you must register it first, even if you registered your previous Version. Once you send us your registration information, we will give you an authorization code that makes the program permanently functional.

To register this copy of HandNet, please pick *Registration* from the *File* menu and follow the instructions on that screen (we would just repeat the instructions here, but you need the unique ID number that is shown on that screen and you also need to print the registration form).

If you really do have a demonstration Version, please contact us to find out how to purchase a full Version.

Software Expired

After the first time you use this Version of HandNet, you have fourteen days to register it. You must register even if you registered your previous Version of HandNet. If you do not register within fourteen days, you will not be able to log in. When you try to log in, you see this message:



If you get this message, exit HandNet and then restart. This brings up the registration screen. Send us the information requested on that screen. Once we get your information, we will send you an activation code to enter on the registration screen. This will make HandNet permanently functional.

Unable to Acknowledge an Alarm

If you have opened the detail box for an alarm and the *Acknowledge* buttons are disabled or grayed out, check the following:

1. Make sure you are logged in. If you are not logged in, you cannot change anything.
2. Make sure that you are clicking one of the *Acknowledge* buttons at the bottom left of the window; you cannot just click the checkbox by the word *acknowledged*; you must click one of the buttons.
3. Check with your supervisor to see if you are authorized to acknowledge alarms (for you to be authorized to acknowledge alarms, the *Alarm Acknowledgement* box must be checked in the *Access Rights* for the operator in *System Settings*; see page 24 for more on adding or changing operator settings).

User Often Rejected

If a user is often rejected at readers, you may need to teach the user the correct way to place the hand on the platen; see *Teaching Users How to Place Their Hands on Readers* on page 86.

Creating a new profile of the user's hand

If the user held his/her hand improperly while being enrolled, or if the user has lost or gained a lot of weight, the hand profile may be different enough to prevent recognition. Delete the user (this eliminates the old hand profile), and then add the user again. When you re-enroll the user, this creates a new profile of the hand. Make sure the user correctly places his/her hand. You can usually avoid this situation by allowing HandNet to update the user's hand profile each time the user gains access; see page 23.

If the user has a disability that prevents consistent hand placement

You may need to increase the tolerance for the user. To do this:

1. Double-click the user on the list of users (you could also click once to select the user and then pick *Properties* from the *User* menu).
2. Click the *Security* tab.
3. Check the *Override Reader's Threshold* box if it is not already checked.
4. Drag the pointer to the right (the *Less Sensitive* side).

If many users are rejected at a particular reader

If many users are being rejected at a particular reader, you may need to clean the reader or you may need to recalibrate it; see page 124.

* * * * *

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No Current	Operator Deleted	Unable to Retrieve Datalog
Messages	Operator Login	Unauthorized Enrollment
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Access Profiles Changed	Output Mode Changed	User Added From Card
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