

SK-NET™

**Operating & Installation Guide
Version 3**



**Access Control
For Today's World**

Secura Key

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SK-NET™

Operating & Installation Guide

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1. INTRODUCTION

1.1 What is SK-NET™?

SK-NET™ is a Windows-based software program designed to monitor and control a network of up to 128 Secura Key 28SA-PLUS access control units or 100 Secura Key SK-ACP 2-door control panels.

1.2 What versions of SK-NET™ are available?

SK-NET™ Download Version & SK-NET-DM (CD-ROM with Manual)	Basic SK-NET™ for one location and a single workstation.
SK-NET-MLD (CD-ROM with Manual)	Upgrade version supports multiple locations . Also enables connection via dial-up modem and TCP/IP (LAN) . This version is designed to run on a single workstation.
SK-NET-MLD-CS (CD-ROM with Manual)	All the features of SK-NET-MLD, plus multiple workstations . Licenses are available for 2, 5, 10 or 15 users. Client/ Server software features five password- protected levels for program access.

1.3 What are the computer system requirements?

Workstation (client) Minimum Requirements:

Windows® NT4.0 or Greater	200MHz, 128 MB RAM, 1 GB Disk Space
Windows® 2000	700 MHz, 128 MB RAM, 1 GB Disk Space
Windows® XP	1 GHz, 256 MB RAM, 1 GB Disk Space

Recommended System:

Windows® XP	1.4 GHz, 512 MB RAM, 10 GB Disk Space
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Required Peripherals: Serial COM Port, CD Drive, Mouse, Monitor

Server Minimum Requirements (For Client/Server Versions):

Microsoft Windows NT/2000/2003 (IP,IPX)

1.4 How is SK-NET™ organized?



There are three main screens in SK-NET™. **Transactions** is the first screen that is displayed when you launch SK-NET™. This screen shows all events that have occurred at the readers and in the system. **Users** includes a list of all the cards in the system, along with cardholder name, access group, in/out status and other information. This is also the screen where you add new cards or change cardholder privileges. **Explorer** displays the layout of the system, including readers, access groups, reader groups, holiday schedules, time zones, etc. Any changes to the system are made in this screen.

To read a comprehensive description of SK-NET™ features, see [Appendix A](#).

SK-NET™ uses many common Windows functions. For tips on navigating in Windows, see [Appendix B](#).

2. GETTING STARTED

2.1 What must I do before I launch SK-NET™?

1. Make a site plan. List each opening where a reader is to be installed. Note the serial number of the SK-ACP panels and/or 28SA-PLUS units for each opening. (NOTE: A reader connected to the right side of an SK-ACP panel (J5) is *serial number –1*, the left side (J6) is *serial number –2*).
2. Install all readers and/or panels following the provided instructions. Be sure to use the type of wire specified. Do not apply power or connect the RS-485 bus until all components are installed.
3. Connect the RS-485 bus to one SK-ACP or 28SA-PLUS at a time. Hold the white reset button in for three seconds while applying power, then release it.
4. Once a panel or 28SA-PLUS is powered, the LED on the reader will begin flashing alternately RED and GREEN. Present a sample card to the reader while it is flashing. This sets the correct facility code in the memory and the flashing will stop after 10 seconds.



NOTE: A 28SA-PLUS can learn up to three facility codes. An SK-ACP can learn up to 16 facility codes. Present a sample of each facility code to the reader while the LED is flashing RED/GREEN.

2.2 How can I connect my panel(s) and/or reader(s) to the computer?

There are four ways to connect your location to the computer(s) where SK-NET™ will be running:

1. **RS-232.** Connect the COM port of a PC to the RS-232 connection of one panel or 28SA-PLUS. This can be a terminal strip or an RJ-11 jack connection. RS-232 connections can be up to 100 feet and require six-conductor shielded cable (not twisted pairs). This panel or 28SA-PLUS will act as the "Gateway" to any other linked panels or 28SA-PLUS units.
2. **RS-485.** Install the NET-CONV-P into the COM port of your computer. Run a twisted pair (or CAT 5) cable to the nearest panel (or 28SA-PLUS with an SK-NM485 installed). RS-485 can be run up to 4000 feet.
3. **MODEM.** Connect the SK-MDM 56K modem to the RS-232 port on one of the panels or 28SA-PLUS units. Connect the modem to a dedicated phone line. Power up the modem first, then the panel or 28SA-PLUS. The set-up string for the modem will be automatically sent. (SK-NET-MLD version only.)
4. **TCP/IP.** Connect the SK-LAN device to the RS-232 port on one of the panels or 28SA-PLUS units. Connect the SK-LAN to an Ethernet jack. Follow the instructions for setting an IP address in the SK-LAN device. (SK-NET-MLD version only.)



NOTE: TCP/IP is the best connection method when using SK-NET™ Client/Server versions because it enables all clients to connect to the Locations.

2.3 How do I install SK-NET™ on my computer or computer network?



NOTE: If you are upgrading from a version of SK-NET before 3.00, you should run the “migration tool” when prompted. This will import databases from your older version to the new version.

Multi Workstation Installation:

1. If you have purchased a multiple workstation client/server version, you should install Advantage Database Server on your network server first. Select “**Install ADS**” from the Main Menu. Follow the installation prompts.
2. The directory where ADS is installed must be shared with the network.
3. When asked to provide “**Serial Number**” and “**Validation Code**”, you will find these on the inside cover of your SK-NET™ manual.
4. After you have installed ADS on the network server, install SK-NET™ on the client workstations. Select “**Install SK-NET**” from the Main Menu. Follow the installation prompts.
5. When asked “**Install SK-NET to:**” we recommend that you accept the default location.
6. When asked “**Install SK-NET database to:**” browse to the mapped drive where you have installed ADS.

Single Workstation Installation

1. Install SK-NET™ on your hard drive by selecting “**Install SK-NET**” from the Main Menu. Follow the installation prompts.
2. When asked “**Install SK-NET to:**” we recommend that you accept the default location.
3. When asked “**Install SK-NET database to:**” we recommend that you accept the default location.
4. If you have purchased SK-NET-MLD version, click on **Help**. Select **Upgrade System**. Click on **MLD Version**. Enter the SK-NET™ serial number (with no dash), located on the inside cover of your SK-NET™ manual.

3. SOFTWARE QUICK START

3.1 How do I get started in SK-NET™?

1. Launch SK-NET™. Enter Password (The default is 1,2,3,4,5). The program will start in the **Transactions** screen.
2. Click on the **Explorer** icon.
3. Right-click on **This Location**.
4. Select **Properties** from the drop-down menu.
5. Click on the **Connection** tab.



NOTE: This Location is the default name of the first location in the software. You may rename Locations. In this manual we will refer to this icon as "Location".

3.2 How do I connect the software to the panel(s) and/or reader(s)?

1. For **RS-232** connections, use the “**Connection Wizard**”. Accept the baud rate and COM port that Connection Wizard finds.
2. For **RS-485** connections, uncheck the “**Gateway (RS-232)**” box and use the “**Connection Wizard**”.
3. For **Modems**, uncheck **Local Connect**. Select the COM Port where your modem is installed. Set the Baud rate to 38,400. Be sure the **Gateway(RS-232)** box is checked. Enter the modem phone number where indicated. (SK-NET-MLD version only.)
4. For **TCP/IP** connections, select **TCP/IP** from the drop down list. Enter the port address and IP address where indicated. (SK-NET-MLD version only.)
5. After following the appropriate procedure from 1, 2, 3 or 4, click on the **Connect** button. Follow the prompts. SK-NET™ will find all of the readers and bring them into the software.
6. After the **Log-In** is complete, close the connection box.



3.3 How do I rename the readers?

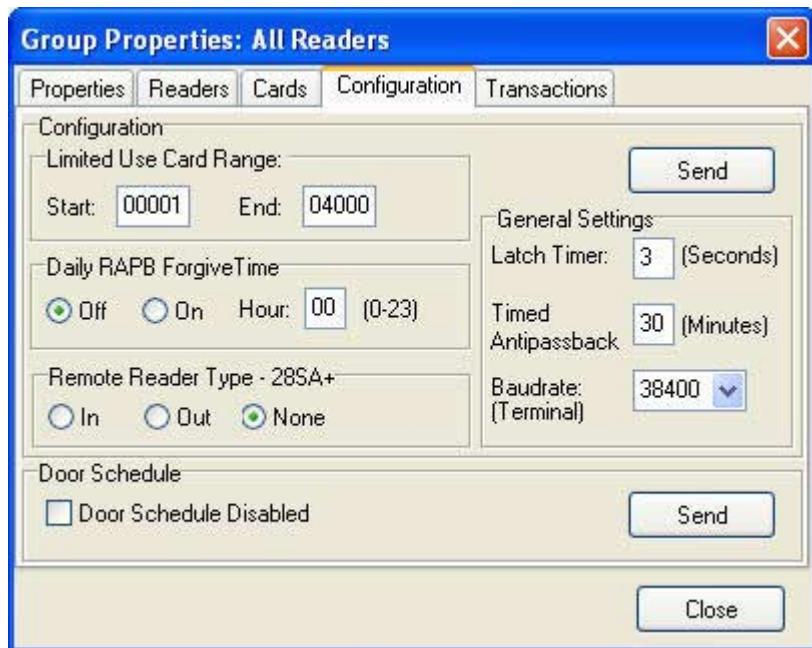
1. From the **Explorer** screen, click on the "+" symbol next to **All Readers**. Every reader found by SK-NET™ will be listed, by serial number.
2. Right-click on a serial number. Select **Rename** from the drop-down menu.
3. Replace the serial number with the name you have selected. Click **OK**.



3.4 How do I set a suitable latch time for all the readers?

Out of the box, 28SA-PLUS and SK-ACP latch timers are set to one second. While this is good for gate operators, it is usually too short for electrically locked doors.

1. Right click on **All Readers**.
2. Select **Properties** from the drop down menu.
3. Click on the **Configuration** tab.
4. Change the latch timer value to the number of seconds you desire (or leave the default door setting of three seconds).
5. Click on **Send**. Then Click on **Close**.

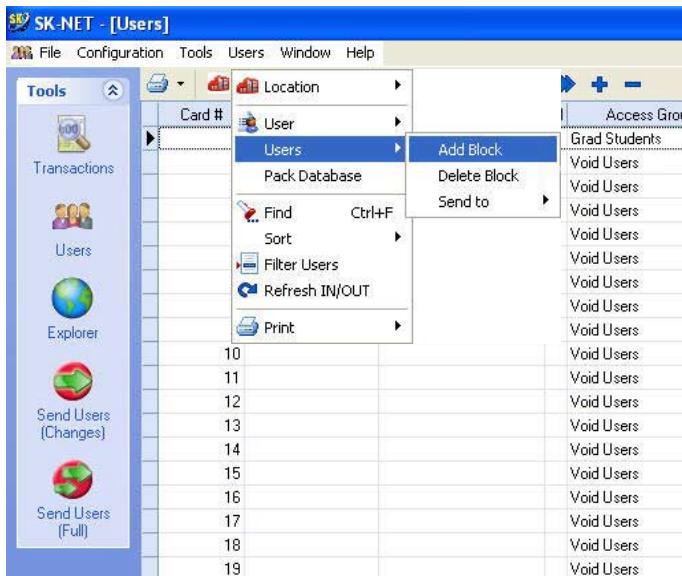


NOTE: This will cause every reader to activate the latch relay for the same time. To set a different latch timer for a single reader, (See Section 5.21).

3.5 How do I enroll cards in my system?

The quickest way to enroll a batch of cards is a “Block Load”.

1. In the **User** screen, click on **Users** in the top tool bar.
2. Select **Users**
3. Select **Add Block**
4. Enter the lowest card number you have.
5. Enter the highest card number you have. (1000 at a time.)
6. Select an Access Group for all the cards.
7. Click **OK**. (All of these card numbers are now listed.)



NOTE: It is usually best to block load cards in the **Void User** group. The Access Group for each card can be changed when it is issued to a specific cardholder (**See Section 6.1**).

NOTE: If you anticipate adding additional Locations where cardholders from the first Location may need access, you should create those Locations in SK-NET™ before loading any cards in the first Location. For instructions in creating additional Locations see **Section 4.1**. (Multiple Locations requires SK-NET-MLD version.)

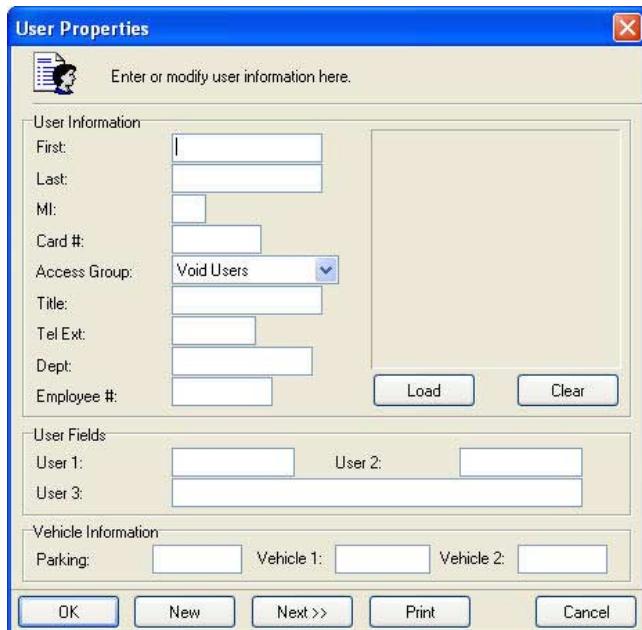
3.6 How can I test the system?

1. From the **User** screen, double-click on one of the card numbers you have block loaded.
2. In the **User Properties** box, enter your name.
3. In the **Access Group** field, select **Master User**.
4. Click **OK**.
5. Click the **Send User Changes** arrow.

You now have one card that should unlock every door and open every gate in the system. Try it out.

6. Go to **Transactions**.

Make sure that every reader you visited appears in the **Transaction** list.

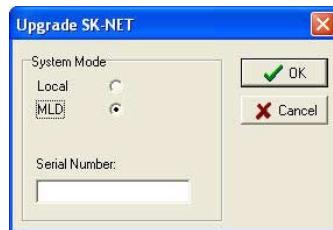


4. MULTIPLE LOCATIONS

With **SK-NET-MLD** version you can create as many different **Locations** as you need. A Location is a group of SK-ACP panels or 28SA-PLUS readers connected together via RS-485 and operating as a unified system.

4.1 How do I convert Basic SK-NET™ to “-MLD”?

1. Click on **Help** in the top tool bar.
2. Select **Upgrade System**.
3. Select **MLD**.
4. Enter the 12-digit serial number (without the dash) where indicated.
(The serial number is located inside the cover of this manual).



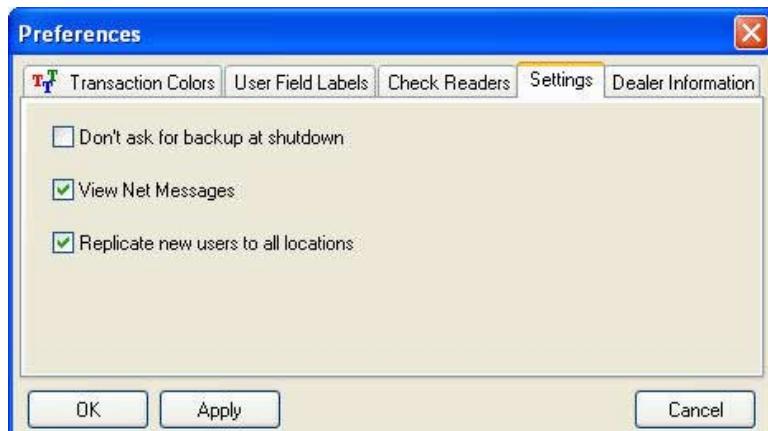
4.2 How do I create additional Locations?

1. From the **Explorer** screen, right-click on **Location**.
2. Select **New**.
3. Select **Location**.
4. Name the New Location. Click **OK**.



4.3 Is there a way to add new Users to more than one Location at a time?

1. From the **User** screen in your primary Location, click on the word **Configuration** in the top tool bar.
2. Select **Preferences**.
3. Click on the **Settings** tab.
4. Place a check mark next to **Replicate New Users To All Locations**.



NOTE: After you perform this function, any card added to one Location will also be added to every other Location. If there is an Access Group in the other Location(s) that has the same name as the Access Group you initially assign the User to, he will be added to that group. If there is no Access Group with the same name, the User will be added to the Void User Group. When you log in to other Locations you can change these Users to a different Access Group, if you wish. You **MUST** do a "Send Users" when **logged in to each Location to activate the cards in that Location.** (Multiple Locations require SK-NET-MLD version.)

5. CUSTOMIZE YOUR SYSTEM

5.1 What are the most common ways of customizing an SK-NET™ system?

Most installations require that you customize one or more Time Zones and then create one or more new Access Groups before issuing cards to users. This allows you to grant access to users for specific doors at specific times and days.

5.2 What are Time Zones?

A **Time Zone** is a schedule that governs when a card is valid (allowed access) and when it is invalid (denied access).

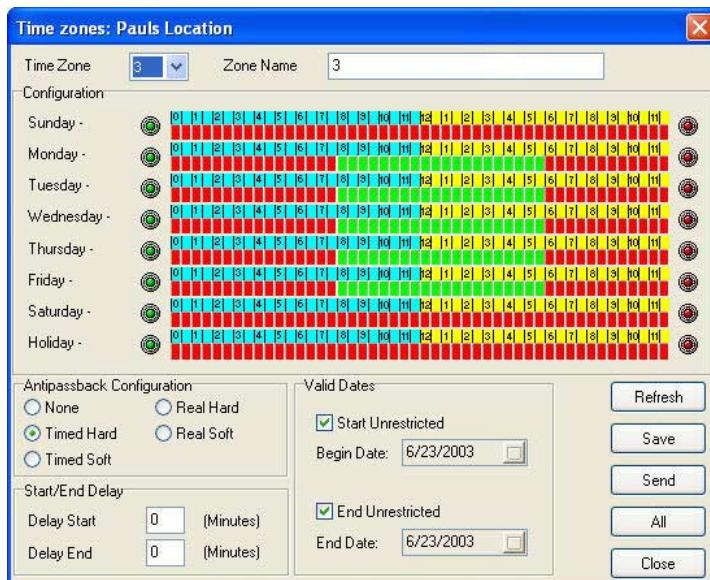
Each Time Zone has a 24-hour schedule for each day of the week, as well as a 24-hour schedule for "holidays". Any date designated as a holiday will follow the holiday schedule, regardless of what day of the week it falls on.

SK-NET™ has sixteen Time Zones. **Time Zone 0** is "Always Void". **Time Zone 1** is "Always Valid". They cannot be edited. **Time Zones 2 through 15** can be edited any way you choose.

Location Time Zones can be set for all readers from the **Explorer** screen. You can also set a time zone for a specific reader (see **Section 5.12**).

5.3 How do I edit a Location Time Zone?

1. Starting from the **Explorer** screen. Double-Click on **Time Zones**
2. Select the Time Zone you want to edit from the drop down list.
3. Every square that is **RED** is a $\frac{1}{2}$ hour increment when access will be denied. Every square that is **GREEN** is a $\frac{1}{2}$ hour increment when access will be permitted. Click on squares to change them from **RED** to **GREEN** (or **GREEN** to **RED**).
4. After editing a Time Zone, click **Save**.
5. After editing all desired Time Zones, click **All**.



NOTE: To change a block of squares from **RED** to **GREEN**, hold down the **CONTROL** key, click on the first square, then click on the last square. The square(s) in between will also change.

NOTE: To change an entire day from **RED** to **GREEN**, click on the big Green button to the left. To change an entire day from **GREEN** to **RED**, click on the big red button to the right.

NOTE: You can change the name of a Time Zone to something that reminds you of its function (i.e. "Day Shift" or "Cleaning Crew").

5.4 How can I start or end a Time Zone at a time other than on the half hour?

You may delay the start of a **Time Zone**, by entering a value (1-29) in the **Delay Start** field. This value equals how many minutes after the first GREEN increment begins when the card will become valid.

You may extend the end of a Time Zone by entering a value (1-29) in the **Delay End** field. This value equals how long after the last GREEN increment the card will continue to be valid.

Start/End Delay		
Delay Start	15	(Minutes)
Delay End	5	(Minutes)

5.5 How can I limit the dates a Time Zone is active?

Uncheck the **Start Unrestricted** box and use the calendar to select the first date the cards in this Time Zone should become active.

Uncheck the **End Unrestricted** box and use the calendar to select the last date that cards in this Time Zone should be valid.

Valid Dates		
<input checked="" type="checkbox"/> Start Unrestricted	Begin Date:	6/23/2003
<input checked="" type="checkbox"/> End Unrestricted	End Date:	6/23/2003



NOTE: This feature is handy for clubs, gyms and other membership organizations.

NOTE: This feature does not apply to Time Zone 1.

5.6 What is Antipassback?

Antipassback is a feature designed to prevent card sharing and/or to enforce use of IN and OUT readers.

Real Antipassback requires readers for coming IN and going OUT. If a card was last used at an IN reader, it must be used at an OUT reader before it will be valid at an IN reader again.

Timed Antipassback does not require In and OUT readers. After a card is used at a reader with Timed Antipassback, that card will not be valid at that reader for a predetermined amount of time (up to 30 minutes).



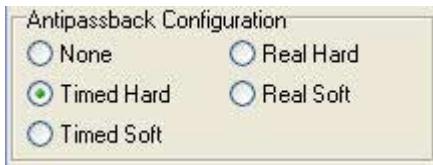
NOTE: This feature does not apply to Time Zone 1.

5.7 How can I apply Antipassback to a Time Zone?

Select the type of Antipassback you want from the list.

Hard Antipassback means the card will not be valid and an "antipassback violation" message will appear in Transactions.

Soft Antipassback means that the card will be valid, but an "antipassback violation" will appear in Transactions.



NOTE: Time Zones 0 and 1 cannot have antipassback.

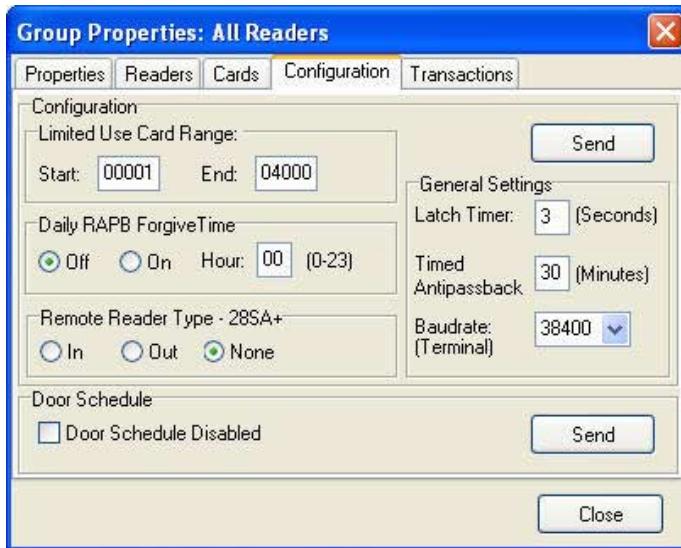
5.8 How do I set the length of time for Timed Antipassback?

To set the timed antipassback time for all readers:

1. Right click on **All Readers**.
2. Select **Properties**.
3. Click on the **Configuration** tab.
4. Enter the number of TAPB minutes (up to 30).
5. Make sure the **Latch Time** is correct. Click on **Send**.

To set the timed antipassback time for a single reader:

1. Right click on the reader name.
2. Select **Properties**.
3. Click on the **Edit** button.
4. Enter the number of TAPB minutes up to 30 minutes).
Click on **Send**.



NOTE: Cards in Time Zone 1 are not subject to TAPB.

5.9 What is RAPB Forgive?

Real Antipassback Forgive resets all cards to a neutral IN/OUT status, allowing the next card use at either an IN or OUT reader. Automatic **RAPB Forgive** happens once a day. The default setting for all readers is **RAPB Forgive off**. You can also initiate **RAPB Forgive** at any time using SK-NET™.

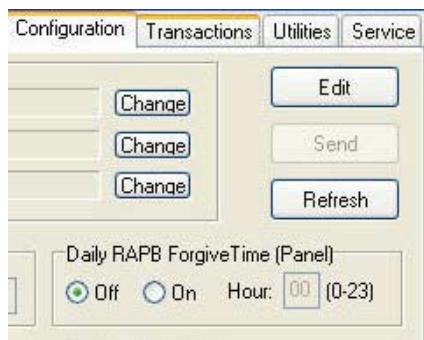
5.10 How can I change automatic Real Antipassback Forgive?

To turn on/off RAPB Forgive, or to change the time setting, for all readers:

1. Right Click on **All Readers**.
2. Select **Properties**.
3. Click on **Configuration** tab.
4. Check “**ON**” or “**OFF**” for RAPB Forgive.
5. Enter the hour, in military time, when RAPB Forgive should activate.
6. Click the upper **Send** button.

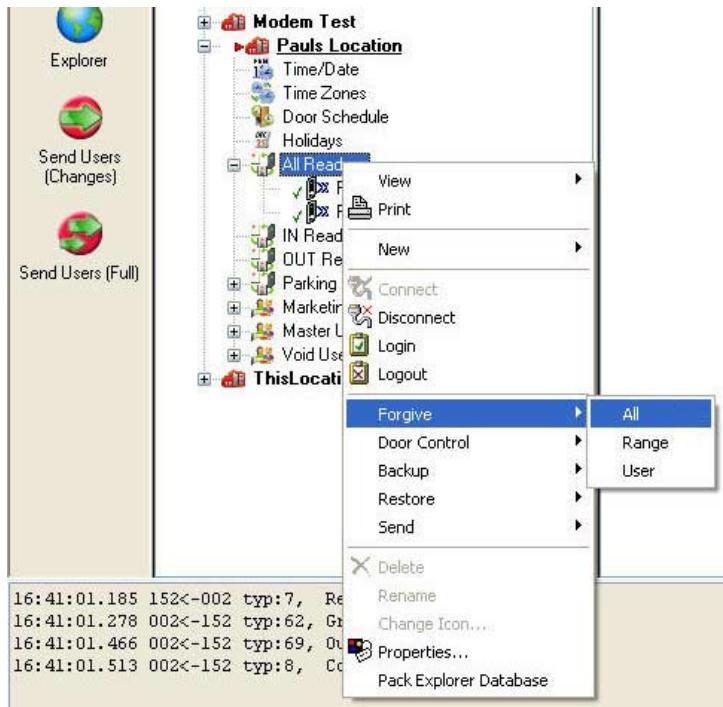
To change RAPB parameters for a single reader:

1. Right click on the reader name.
2. Select **Properties**.
3. Click on the **Configuration** tab.
4. Click on the **Edit** button
5. Check RAPB Forgive “**ON**” or “**OFF**”.
6. Enter the hour, in military time, when RAPB Forgive should activate.
7. Click **Send**.



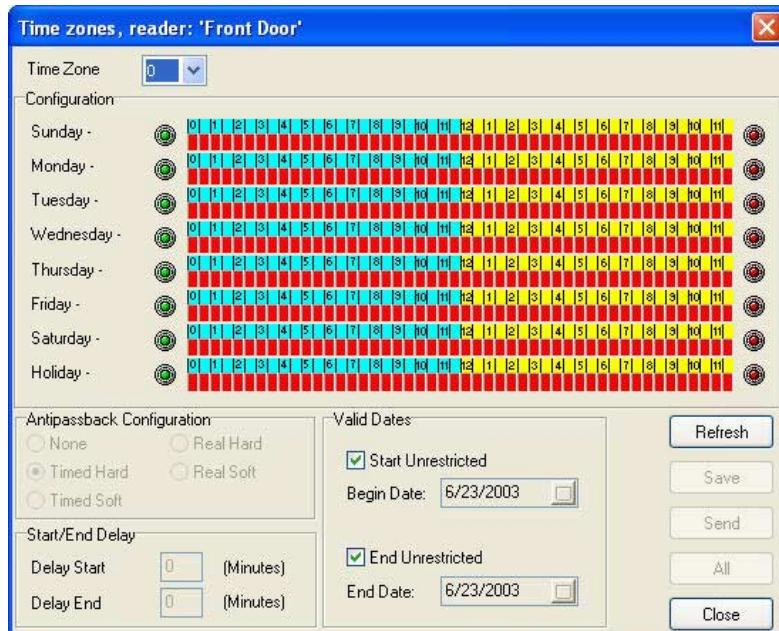
5.11 How can I perform an unscheduled RAPB Forgive?

1. From the **Explorer** screen, right-click on **All Readers**.
2. Select **Forgive**.
3. Choose **All** to reset all users, **Range** to enter a range of cards to forgive or **User** to forgive a single cardholder.
4. Click **OK**.



5.12 How do I edit a Time Zone in a single reader?

1. From the **Explorer** screen, right-click on the selected reader.
2. Select **Properties**.
3. Click on the **Zones** button.
4. Select the Time Zone to be edited.
5. Follow the procedures described in section 5.3.
6. Click on **Send**. Close these boxes.



5.13 What is an Access Group?

An **Access Group** is a group of cardholders whose cards are valid at the same reader(s) and have the same **Time Zone** restrictions.

SK-NET™ automatically creates two access groups:

The **Master User** group includes all the readers in the location and is assigned to **Time Zone 1** (Always). Master Users can go anywhere, anytime. Master Users are immune to antipassback.

The **Void User** group also includes all the readers. It is tied to **Time Zone 0** (Never). Placing a cardholder in the Void User group means he can never go anywhere, but his attempts to use the card will appear in Transactions.

5.14 How do I create an Access Group?

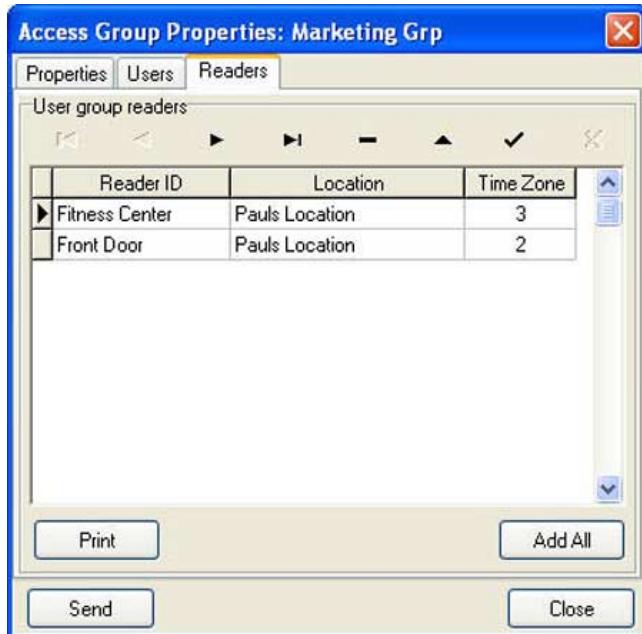
1. In the **Explorer** screen, right-click on **This Location** (or the new location name).
2. Select **New**.
3. Select **Access Group**.
4. Enter a group name. Enter a Time Zone for the group. Click **OK**.
5. The name of the new Access Group now appears on the left side of the screen. At this point there are no readers assigned to this group.
6. Left click once to highlight **All Readers**. All of the reader icons will appear on the right side of the screen.
7. Drag-and-Drop the desired readers from the right side of the screen into the new access group name on the left side of the screen.



5.15 Do all the readers in an Access Group have to follow the same Time Zone?

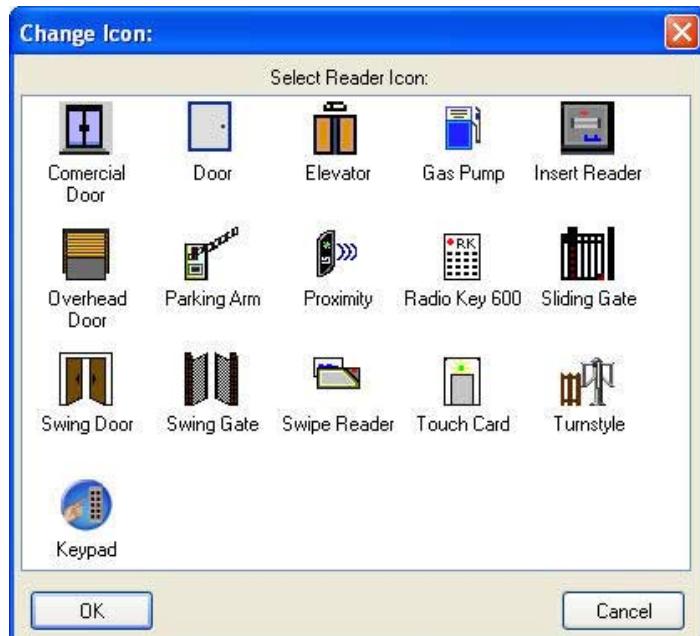
Each reader in an **Access Group** could be assigned to a different **Time Zone**. To edit an Access Group:

1. Right Click on the Access Group name.
2. Select **Properties**.
3. Click on the **Readers** tab.
4. Click on the “edit” icon (It looks like a little triangle).
5. Change the Time Zones next to each reader name.
6. Click on the “save” icon (It looks like a check mark.).
7. Click on **Close**.



5.16 How do I change the reader icons?

1. From the **Explorer** screen, right click on the reader name. Select **Change Icon**.
2. Select a suitable icon from the displayed menu. Click **OK**.



5.17 What is a door schedule?

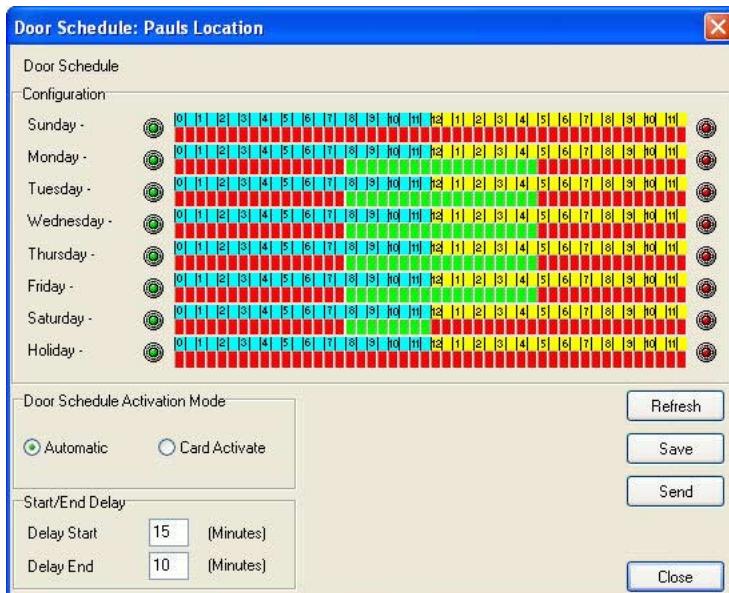
Door Schedule is used to automatically lock and unlock a door according to a regular weekly time schedule. Each Door Schedule has a 24-hour schedule for each day of the week, as well as a 24-hour schedule for "holidays". Any date designated as a holiday will follow the holiday schedule, regardless of what day of the week it falls on.

You may set a Location Door Schedule for all the readers in the location, or you can set a Door Schedule for an individual reader.

5.18 How do I set up a Door Schedule?

Location Door Schedule:

1. In the **Explorer** screen, double-click on **Door Schedule**.
2. Every GREEN square represents a ½ hour increment when the door will be unlocked. Every RED square is a ½ hour increment when it will be locked. Change the color of any square by clicking on it.
3. Select **Automatic** or **Card Activate**. Automatic means the door will unlock at the predetermined time. Card Activate means that the door will remain locked after the GREEN period begins until the next valid card is presented. This ensures that someone is in the building before the door unlocks.
4. For Door Schedules that do not conform to exact half-hours, use the **Delay Start** and **Delay End** feature. (**See Section 5.4**)
5. Click **Send** when finished.

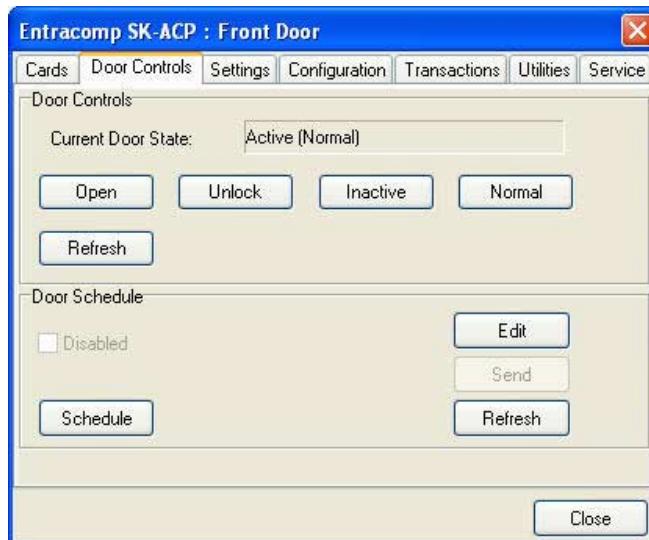


NOTE: If you have a Door Schedule, you probably need to define Holidays.

NOTE: To temporarily override a door schedule, see 5.30d.

Single Door Schedule

1. In the **Explorer** screen, right click on the reader name.
2. Select **Properties**
3. Click on the **Door Controls** tab.
4. Click on **Schedule**.
5. Every GREEN square represents a ½ hour increment when the door will be unlocked. Every RED square is a ½ hour increment when it will be locked. Change the color of any square by clicking on it.
7. Select **Automatic** or **Card Activate**. Automatic means the door will unlock at the predetermined time. Card Activate means that the door will remain locked after the GREEN period begins until the next valid card is presented. This ensures that someone is in the building before the door unlocks.
8. For Door Schedules that do not conform to exact half-hours, use the **Delay Start** and **Delay End** feature. (**See Section 5.4**)
9. Click on **Send**. Click **OK**. Click on **Close**.



NOTE: If you have a Door Schedule, you probably need to define Holidays.

5.19 How does SK-NET™ handle holidays?

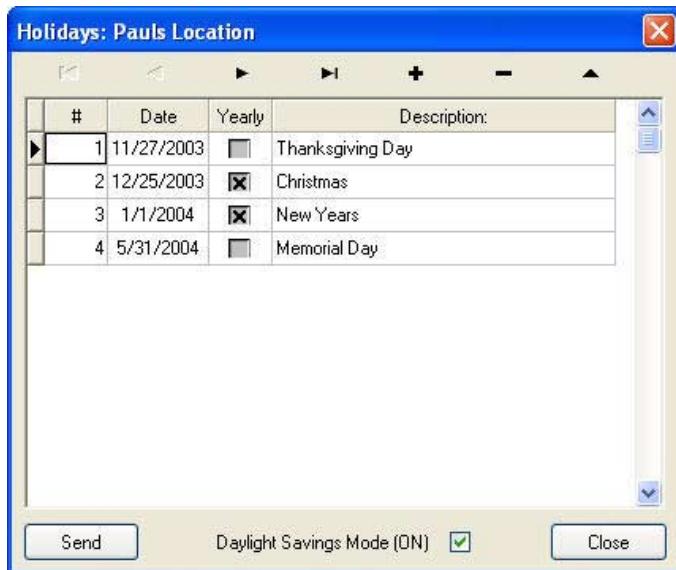
Any date that is designated as a holiday will follow the **Holiday** schedule in **Time Zones 2-15** and in any **Door Schedules** you have created. You may designate up to 32 dates as Holidays.

While it is usually best to create Holidays per Location (for all readers) you may also create a Holiday for a single reader.

5.20 How do I create a Holiday?

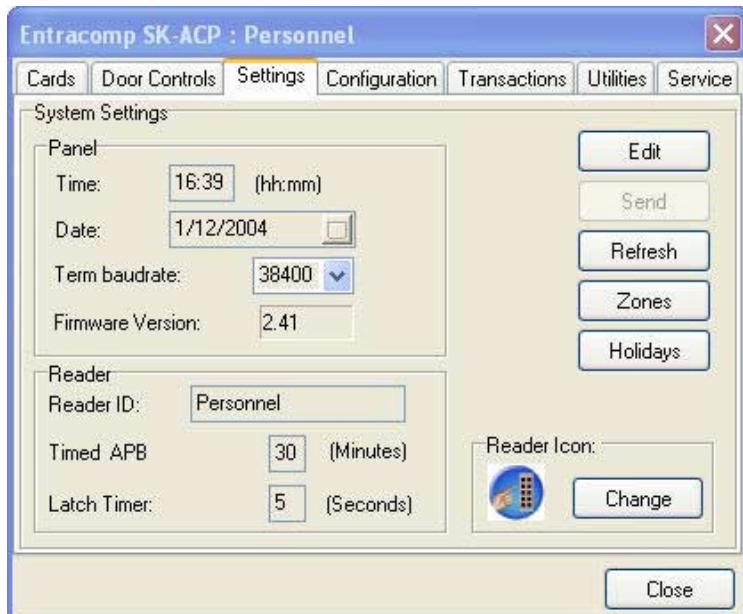
Location Holidays:

1. In the **Explorer** screen, double-click on **Holidays**.
2. Click on the "+" plus sign icon to add a Holiday.
3. Enter the date of the Holiday. Type in a name for the Holiday. If the Holiday always falls on this date, check **Yearly**. Click **OK**.
4. To remove a Holiday, highlight the Holiday number and click on the "-" minus sign.
5. To edit a Holiday, highlight the Holiday number and click on the edit icon (little triangle). Make changes to date or name and click ok.
6. After all Holiday additions or changes are made, click send, then ok, then close.



5.21 How can I change the latch timer for a single reader?

1. Right-Click on the name of the reader you want to change.
2. Select **Properties**.
3. Click on the **Edit** button.
4. Enter a new **Latch Timer** value (in seconds).
5. Click on the **Send** button.
6. Click on **Close**.



5.22 How does the system know the date and time?

By default, every time you log into a location with your computer, the time and date in that computer can be transmitted to the system. If you prefer, you may manually set the system time using SK-NET™. (For example, if the computer is in a different time zone, you will want to set the time manually.)

Automatic Daylight Savings Time adjustments are handled by the system, unless you override this feature.

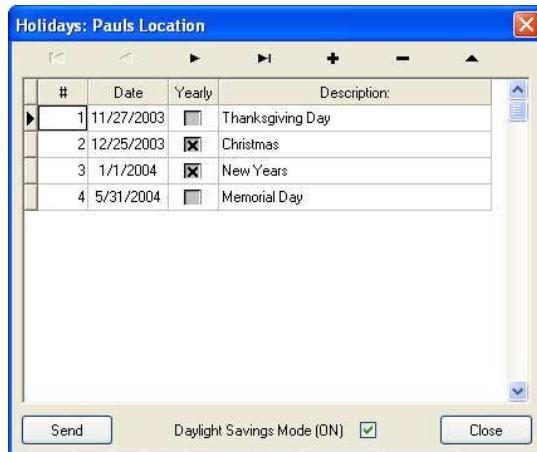
5.23 How do I manually set the time and date?

1. In the **Explorer** screen, right-click on **This Location**.
2. Select **Properties**.
3. Click on the **Connection** tab.
4. Uncheck the **Auto Time Synch** box. **Close**.
5. In the **Explorer** screen, click on **Time/Date** once to display current time and date settings.
6. Double-click on **Time/Date** to make changes.
7. Click on **Edit**.
8. Enter new time and date settings. Click **Send**. Click **Close**.



5.24 How do I override U.S. Daylight Savings Time feature?

1. From the **Explorer** screen, double click on **Holidays**.
2. Uncheck the box next to **Daylight Savings Mode (ON)**.
3. Click **Send**. Click **Close**.



5.25 What are IN and OUT readers?

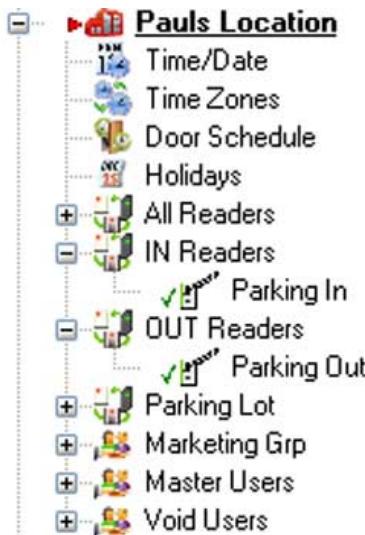
SK-NET™ automatically creates a reader group for “**IN**” readers and a group for “**OUT**” readers. If your system has readers on both sides of an opening to control both access (entry) and egress (exit), you should place these readers in the IN and OUT groups.

When a reader is neither an IN or an OUT reader, valid card uses appear as “Valid Access” in **Transactions**. When a reader has been designated as an IN reader, the message will say “Valid Entry”. When a reader is designated as an OUT reader, the message will say “Valid Exit”:

Designating readers as IN and OUT is required in order to have **Real Antipassback**. (**See Section 5.6**)

5.26 How do I make a reader an “IN” or an “OUT” reader?

1. In the **Explorer** screen, click once on **All Readers**. This will cause all of the reader icons to appear on the right side of the screen.
2. Drag-and-Drop the appropriate readers onto the **IN Reader** group and the **OUT Reader** group on the left side of the screen.
3. Click on the “+” plus sign next to IN Readers and OUT Readers to see which readers are in the groups.



5.27 What is a Reader Group?

A Reader Group is used to set common properties for two or more readers. SK-NET™ automatically creates three Reader Groups: **All Readers**, **IN Readers** and **OUT Readers**. You may create as many additional Reader Groups as you wish.

5.28 How do I create a Reader Group?

1. From the **Explorer** screen, right-click on **This Location** (or the new location name).
2. Select **New**. Select **Reader Group**.
3. Enter a name for the new Reader Group. Click **OK**.
4. Click on **All Readers** once. This causes all of the reader icons to appear on the right side of the screen.
5. Drag-and-Drop the desired readers from the right side of the screen onto the name of the new Reader Group.



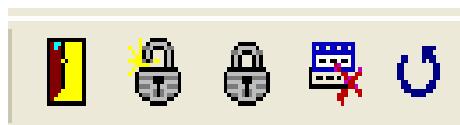
NOTE: Reader Groups are often used with **Door Controls**.

5.29 What are Door Controls?

Door Controls are functions that you can initiate from SK-NET™ that affect the door or gate at a connected location. Door Control icons appear at the top of the Explorer screen. You can send a Door Control command to a single reader, or to a Reader Group.

5.30 How do I use Door Controls?

1. From the **Explorer** screen, click once on the name of a single reader or a **Reader Group** (i.e. All Readers).
2. Click on the **Door Control** icon for the function you want to initiate:
 - a. **Open The Door Now** will activate the latch relay(s) for the same time as presenting a valid card
 - b. **Unlock The Door** activates the relay and keeps it activated until you restore it. During this time the GREEN LED on the reader will flash slowly.
 - c. **Make Inactive (Locked)** prevents even valid cards from gaining access through the door until you restore it. During this time the RED LED will flash slowly.
 - d. **Disable Door Schedule** is an override that relocks a door, or group of doors, that have been unlocked by a Door Schedule.
 - e. **Make Active (Normal)** restores a reader to normal operation after it has been placed in the Unlock or Inactive state by a Door Control command.



NOTE: **Disable Door Schedule** is useful when conditions require that a normally unlocked door be locked early. An example would be a school that has early dismissal due to bad weather.

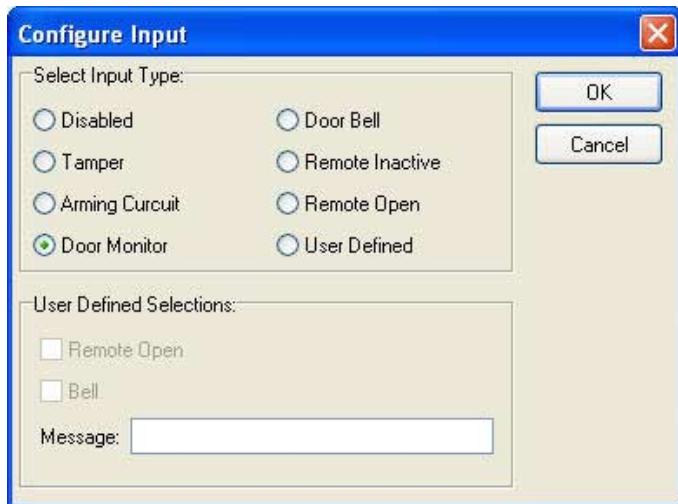
5.31 What are Inputs?

Inputs are circuits that connect external sensors or switches to an SK-ACP or 28SA-PLUS. They are used to initiate special functions or to generate messages in Transactions. There are eight different Input definitions you can choose in SK-NET™.

- a. **Disabled** – The Input is not used.
- b. **Tamper** – A switch or sensor that has been installed to detect interference with a component of the access control system. If this circuit is closed, the reader will be disabled and a Tamper message will appear in Transactions.
- c. **Arming Circuit** – The reader is disabled until this input is closed. Cards presented while the Arming Circuit is open will be logged in Transactions but access will be denied. This input is often used for gates where a loop detector must sense that a vehicle is present before a card can be valid.
- d. **Door Monitor** – Connected to a door position switch, this input activates anti-tailgate feature. It is also used to detect a door forced open or held open too long.
- e. **Door Bell** – Sends an ASCII Bell Character to a PC or printer, causing an audible tone.
- f. **Remote Inactive** – Closing this input makes the reader inactive (lockout).
- g. **Remote Open** – This input activates the latch relay for the same amount of time as a valid card use. A "Door Opened Via Sensor" message appears in Transactions. Also called Request-To-Exit or REX.
- h. **User Defined** – This input allows you to write a custom message that will appear in Transactions. The Input can be a variation of Remote Open or it can simulate Door Bell. It can also be used as an alarm reset for certain auxiliary relay output functions.

5.32 How do I define an Input?

1. From the **Explorer** screen, right click on a reader name.
2. Select **Properties**.
3. Click on the **Configuration** tab.
4. Click on **Edit**.
5. Select the **Input** you want to change.
6. Select the Input definition. Click **OK**.
7. Click on the **Send** button. **Close**.



5.33 What is an output?

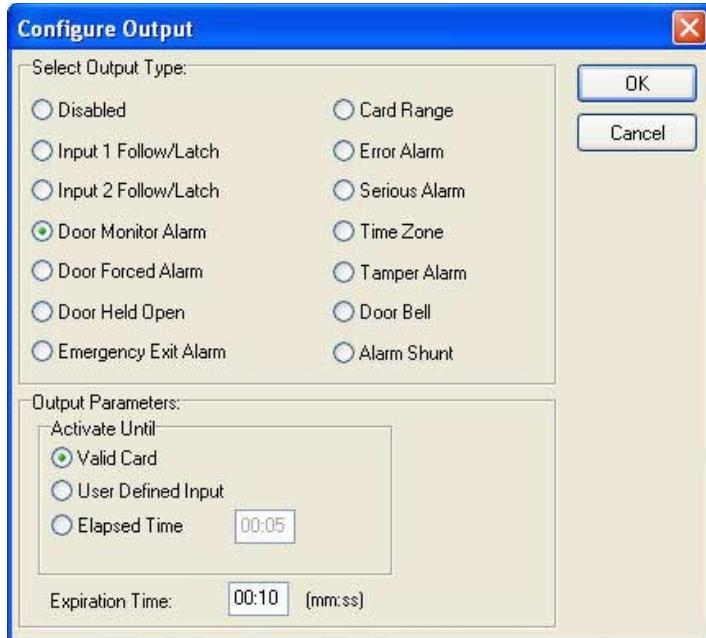
The SK-ACP has a main (latch) relay and an auxiliary relay for each reader. (28SA-PLUS does not have an auxiliary output.) This extra relay can be activated by a variety of means to accomplish various functions.

- a. **Disabled** – The output is not used.
- b. **Input 1 Follow / Latch** – Whenever Input 1 is closed the aux. relay will activate until either 1) a valid card is presented to the reader, 2) a User Defined Input 2 is activated, 3) a pre-selected amount of time elapses or 4) Input 1 is opened.
- c. **Input 2 Follow / Latch** – Whenever Input 2 is closed the aux. relay will activate until either 1) a valid card is presented to the reader, 2) a User Defined Input 1 is activated, 3) a pre-selected amount of time elapses or 4) Input 2 is opened.
- d. **Door Monitor Alarm** – If one of the Inputs is configured as Door Monitor, this output will activate if the door is forced open or if it is left open too long. This output is typically connected to a local alarm signal or to a remote monitoring station. Once the auxiliary relay is activated it will remain activated until 1) a valid card is presented to the reader, 2) a User Defined Input is activated, 3) a pre-selected amount of time elapses.
- e. **Door Forced Alarm** - If one of the Inputs is configured as Door Monitor, this output will activate if the door is forced open. This output is typically connected to a local alarm signal or to a remote monitoring station. Once the auxiliary relay is activated it will remain activated until 1) a valid card is presented to the reader, 2) a User Defined Input is activated, 3) a pre-selected amount of time elapses.
- f. **Door Held Open** - If one of the Inputs is configured as Door Monitor, this output will activate if the door is left open too long. This output is typically connected to a local alarm signal or to a remote monitoring station. Once the auxiliary relay is activated it will remain activated until 1) a valid card is presented to the reader, 2) a User Defined Input is activated, 3) a pre-selected amount of time elapses.
- g. **Emergency Exit Alarm** – Used when one of the Inputs is designated as Remote Open, the auxiliary relay will activate whenever the main relay is triggered via the Remote Open Input. This is typically used to sound a local alarm when the door has been used for egress.

- h. Card Range** – Cards in a selected range will activate the auxiliary relay only or both the auxiliary and main relays. Typically this is used so specific cards can cause something special or extra to happen. The relay can be set to Toggle, (activate until another card in the selected range is presented) or to activate for a preset amount of time
- i. Error Alarm** – When any one of selected "Error" conditions occur, the auxiliary relay will activate and stay activated until a valid card is presented to the reader. Error Conditions you may select from are "Door Forced", "Door Held", "Tamper Input", "Void User", "Invalid Facility Code", "Antipassback Violation", "Arming", "Tamper Card", "Inactive", "Invalid ID", "Time Zone Error", "Time Zone Date", "Limited Use Violation".
- j. Serious Alarm** – When any one of the following "Error" conditions occur, the auxiliary relay will be activated and remain activated until a valid card is presented: "Void Card", "Invalid Facility Code", "Tamper", "Door Forced", "Door Held".
- k. Time Zone** – The auxiliary relay will be activated during the GREEN increments of the selected Time Zone.
- l. Tamper Alarm** – If a Tamper Input is closed, the auxiliary relay will be activated and will remain activated until until 1) a valid card is presented to the reader, 2) a User Defined Input is activated, 3) a pre-selected amount of time elapses.
- m. Door Bell** – If a Door Bell Input is closed the auxiliary relay will be activated and remain activated until 1) The input is opened or 2) a pre-selected amount of time elapses.
- n. Alarm Shunt** – Whenever the main relay is activated by a valid card or a Remote Open input, the auxiliary relay will be activated and will remain activated until 1) the main relay returns to normal or 2) a pre-selected amount of time elapses.

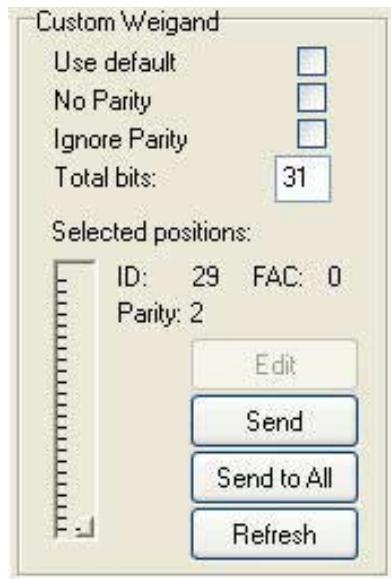
5.34 How do I define an auxiliary relay output?

1. From the **Explorer** screen, right click on a reader name.
2. Select **Properties**.
3. Click on the **Configuration** tab.
4. Click on **Edit**.
5. Select the Output
6. Select the Output definition.
7. Set any applicable Output Parameters - Click **OK**.
8. Click on the **Send** button. **Close**.



5.35 How can I set my SK-ACP panels for other Wiegand data formats?

1. From the **Explorer** screen, right-click on a reader name.
2. Select **Properties**.
3. Click on the **Service** tab.
4. Click on **Edit**.
5. Uncheck **Use Defaults**.
6. Enter the total number of bits in your card format.
7. Use the slide scale to set the number of card I.D. bits.
8. If normal parity bits are not used check **No Parity** and verify whether the card number is correct. If not, select **Ignore Parity**.
9. Click **Send To All**. Click **Close**.



5.36 How do I add a panel or reader to the system?

After the new hardware has been installed and wired into the system, hold in the reset button while turning on the power. Hold for 3 seconds and release. SK-NET™ will now have to find the new reader(s).

1. From the **Explorer** screen, right-click on **This Location**, or the new Location name.
2. Select **New**
3. Select **Reader(s)**
4. Select **Quick Find** (unless you have added more than 20 readers, then use **Search**).
5. SK-NET™ will find the new reader(s) and bring them into the system. Follow the prompts until the new readers have been logged in.



NOTE: The newly found readers will automatically be added to the **All Readers**, **Master Users** and **Void User** groups. Be sure to drag-and-drop the new readers into any other appropriate Access Groups before you do a **Card Send**.

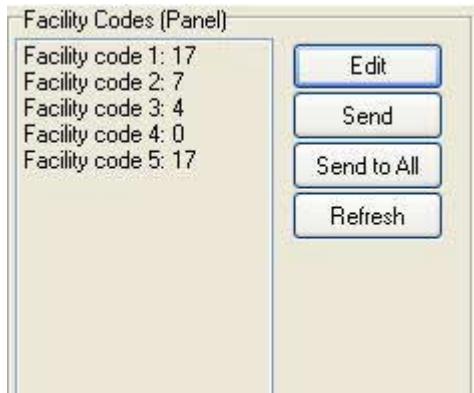
NOTE: This procedure must be followed anytime you replace a defective panel or reader. It must also be followed if you perform a Power Reset on a panel or reader. (See 11.6)

5.37 How do I add a Facility Code to my system?

SK-ACP can learn up to 16 **Facility Codes** and 28SA-PLUS can learn up to three. While it is best to have a single Facility Code in each system, this is not always convenient. You can set Facility Codes in a panel or reader by pressing the reset button and then presenting a sample of ALL the Facility Codes to a reader while the LED is flashing alternately RED and GREEN.

If there are multiple panels you can repeat this procedure at each, or you can send the codes from one unit to all the others through SK-NET™.

1. From the **Explorer** screen, right click on the name of a reader that has all of the required Facility Codes.
2. Select **Properties**.
3. Click on the **Service** tab.
4. In the **Facility Code** section, click on **Edit**.
5. Click on **Close**. Click on **Send To All**.
6. Click **Close**.



NOTE: Sending Facility Codes via SK-NET™ is not supported by the 28SA-PLUS.

6. MANAGING USERS

The **User** screen displays all cards and associated cardholders. This is where you can add a card, edit card details, monitor in and out status and generate user reports.

6.1 How do I issue previously block-loaded cards to cardholders?

1. In the **User** screen, double click on the card number you want to issue. A **User Detail** box will appear.
2. Enter the cardholder name. Select an **Access Group** from the dropdown list.
3. Other fields are optional. They are provided for your convenience.
4. To attach a photograph to a user record, click on **Load**. Use the browser to locate the jpeg (.jpg) file with the desired picture. Click **Load**.
5. Click **OK**.
6. After any card additions or changes, click the **Send** arrow.



NOTE: Follow the same procedure to edit cardholder information or change Access Group.

NOTE: Attached photos should be small files (480x640). High resolution pictures may slow the program and they will not look any better on a computer screen. Attached photos can be viewed in Transaction Detail (**See Section 7.3**) and are available for use by SK-EZ/ID badge-making software.

6.2 How can I add a card number that has not been previously block loaded?

1. In the **User** screen, click on the "+" plus sign.
2. In the **User Detail** box, enter the cardholder name.
3. Enter the **Card Number**.
4. Select an **Access Group** from the drop down list.
5. Enter additional data and/or attach photos if desired.
6. Click **OK**.
7. After any card additions or changes, click the **Send** arrow.

6.3 How can I remove a user?

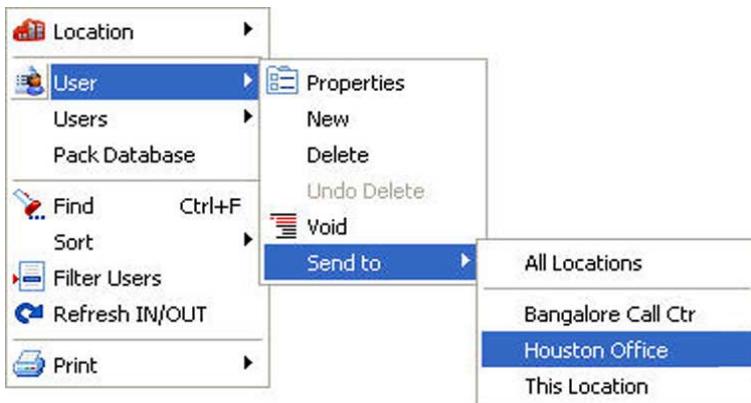
You can remove a card completely from the system. It is usually better, though, to edit the card and make it a **Void User**. This ensures that the card will not open anything, but each attempted use will be recorded in **Transactions**.

To remove a single card:

1. In the **User** screen, click on the card number to be removed. This will position the pointer next to that number.
2. Click on the "-" minus sign. The record will be removed.
3. After any card additions or changes, click the **Send** arrow.

6.4 How can I copy a User to another Location?

1. From the **User** screen, right-click on the card number to be copied.
2. Select **User**.
3. Select **Send To...**.
4. Select the Location from the dropdown list.

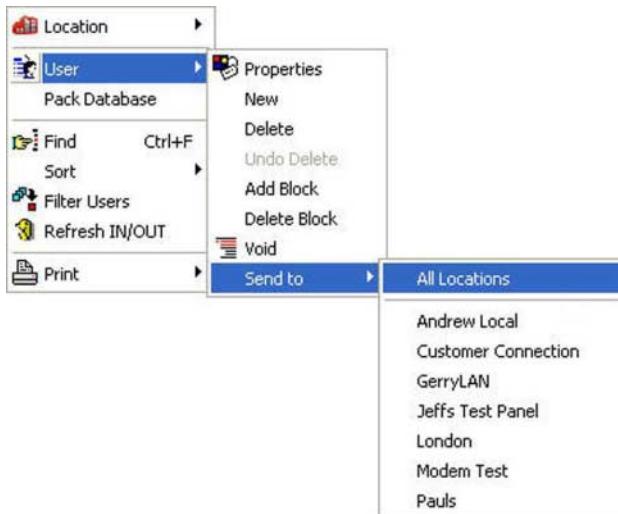


NOTE: The selected User record will be copied to the selected Location (or All Locations). If there is an Access Group in the other Location(s) that has the same name as the Access Group you have assigned the User to, he will be added to that group. If there is no Access Group with the same name, the User will be added to the Void User Group. When you log in to other Locations you can change these Users to a different Access Group, if you wish. (If the User already exists in the selected Location, his Access Group will not be changed. You **MUST** do a "Send Users" when logged in to each Location to activate the cards in that Location. (Multiple Locations require SK-NET-MLD version.)

NOTE: Be sure you select "User", not Users". Selecting the wrong menu will send all cardholders to the new location.

6.5 How can I copy a group of users to another location?

1. From the **User** screen, click on **Users** on the top tool bar.
2. Select **Users**.
3. Select **Send to**.
4. Select the location from the list, or choose **All Locations**.
5. Select **All**, or enter a range of card numbers to be copied.



NOTE: The selected User record will be copied to the selected Location (or All Locations). If there is an Access Group in the other Location(s) that has the same name as the Access Group you have assigned the User to, he will be added to that group. If there is no Access Group with the same name, the User will be added to the Void User Group. When you log in to other Locations you can change these Users to a different Access Group, if you wish. (If the User already exists in the selected Location, his Access Group will not be changed. You **MUST** do a "Send Users" when logged in to each Location to activate the cards in that Location. (Multiple Locations require SK-NET-MLD version.)

6.6 How can I change the names of User data fields?

1. From the **User** screen, click on the word **Configuration** in the top tool bar.
2. Select **Preferences**.
3. Click on the **User Field Labels** tab.
4. Replace any of the field labels shown. Click **OK**.



6.7 How can I find a specific cardholder on the User List?

In the **User** screen you can sort the User List by clicking on many of the column headings. For example, clicking on **Last Name** will sort the list alphabetically by last name. Clicking on **Card Number** will sort the list from lowest to highest card number.

You may also find a specific card or user by clicking on the **Find User** icon. Select the search field (Last Name, Card Number, Title, etc.) and enter the corresponding value. A pointer on the left side of the list will move to the desired record.

6.8 What does Filter Users do?

Filters allow you to temporarily remove unwanted records from the list. This allows a limited user report to be generated, for example, users in a single department or users who are out of the building.

6.9 How do I use Filter Users?

1. From the **User** screen, click on the **Filter Users** icon.
2. In the **Filter Users** detail box, select **Access Group, IN/OUT** or **Department**.
3. Enter the desired filter value. Click **OK**.
4. To remove any applied filters, repeat the process and select **ALL** for each filter type.



6.10 What are Limited Use Cards?

Limited Use Cards are valid for a specific number of uses, days or weeks. After the preset limit is reached, the cards become Void.

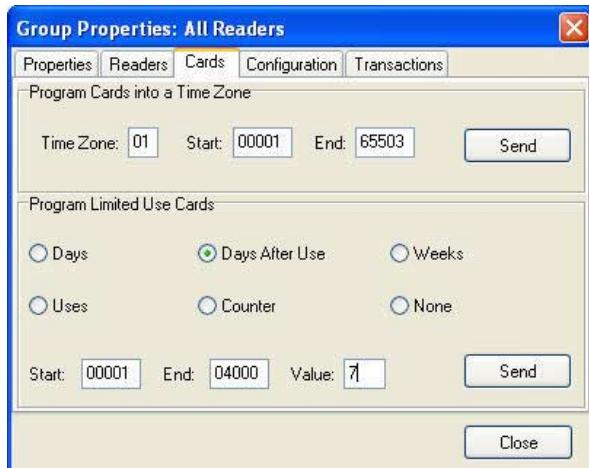
Limited Use Cards can also be set to "Count". This feature keeps track of card uses, but does not automatically void the card.

Limited Card usage is shared between all of the readers in a location, but it is not transmitted from one location to another.

It is usually best to set up Limited Use Cards globally, but they may also be created in a single reader or a Reader Group.

6.11 How do I create Limited Use Cards?

1. In the **Explorer** screen, right-click on **All Readers**.
2. Select **Properties**.
3. Click on the **Configuration** tab.
4. Enter the lowest and highest **Limited Use Card** numbers from among the cards enrolled in your system. (No more than 4000 cards may be Limited Use.)
5. Click **Send**.
6. Click on the **Cards** tab.
7. Select the appropriate Limited Use parameter. Enter a count value, where required.
8. Enter the lowest and highest cards within the previously defined limited use card range, that applies to this parameter. (You can define multiple groups of Limited Cards with various limitation parameters.)
9. Click **Send**. Click **Close**.



NOTE: A similar process can be used in the properties of a Reader Group or of a single reader. It is usually better to make Limited Use Cards Location-wide.

NOTE: Limited Use cards cannot be programmed into **Time Zone 1**.

NOTE: When the **Uses** parameter is selected, the system does not count uses involving an **OUT** reader.

7. MANAGING TRANSACTIONS

The **Transaction** screen displays system activity. Card events that are valid and invalid are displayed, along with system events such as a door unlocked by a **Door Schedule** or automatic **RAPB Forgive**.

Transactions can be displayed in a list, with the most recent event at the bottom of the screen. You can also display a single transaction in detail, including any attached photograph for the cardholder.

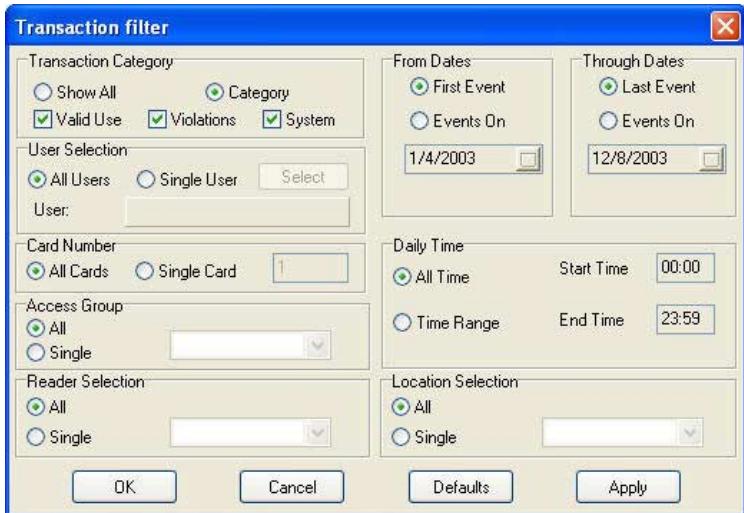
7.1 How can I make the Transaction list easier to read?

1. From the **Transaction** screen, click on the **Change Colors** icon.
2. Click the **Change** box next to the event type you want to alter.
3. Select a color from the chart. Click **Apply** to preview how the color will look. (Some colors are very hard to read.) Click **OK** to use the selected color.



7.2 How can I view specific types of transactions only?

1. From the **Transactions** screen, click on the **Filter** icon.
2. In the **Transaction Filter** box, select one or more filter criteria types. Each filter criteria requires a value to be entered.
3. Click **OK**.
4. To remove any filters, repeat the process and select **ALL** for each filter criteria (or click on **Defaults** to reset all filters.)



7.3 How can I view cardholder photos as they use their cards.

1. From the **Transaction** screen, click on the **Zoom In** icon (magnifying glass icon).
2. The most recent transaction will be displayed with user details and photo (if loaded). To view previous transactions, use the navigation buttons.



7.4 How can I archive older transaction records?

1. From the **Transaction** screen, click on the word **“Transactions”** in the top tool bar.
2. Select **Archive**.
3. Enter the a name for the archive file destination.
4. If you do not want to archive all the transaction records, enter a starting and/or ending date.
5. Click **OK**.



NOTE: In the same menu you may choose to delete an archive file that you no longer wish to retain.

7.5 How can I view archived transactions?

1. From the **Transaction** screen, click on the selector arrow for **Select Transactions to View**.
2. Select the archive file you want to see.
3. You may navigate through archived transactions the same way you navigate through current transactions.



The screenshot shows the 'Transactions' application window. At the top, there's a menu bar with 'Window' and 'Help'. Below the menu is a toolbar with icons for back, forward, search, and other functions. A dropdown menu is open over a button labeled 'Testingtrans'. The dropdown menu contains three items: 'Current Transactions', 'SKTRANSARC', and 'Testingtrans'. The 'Testingtrans' item is highlighted with a blue selection bar. The main table area has columns for 'Card #', 'User Name - Access', 'Transaction Type', and 'Reader ID/Location'. There are several rows of data, all of which are colored orange, indicating they are part of the 'Testingtrans' archive. The data includes various transaction types like 'RAPB forgive all via Reader' and reader IDs like '87-1/Lan100'.

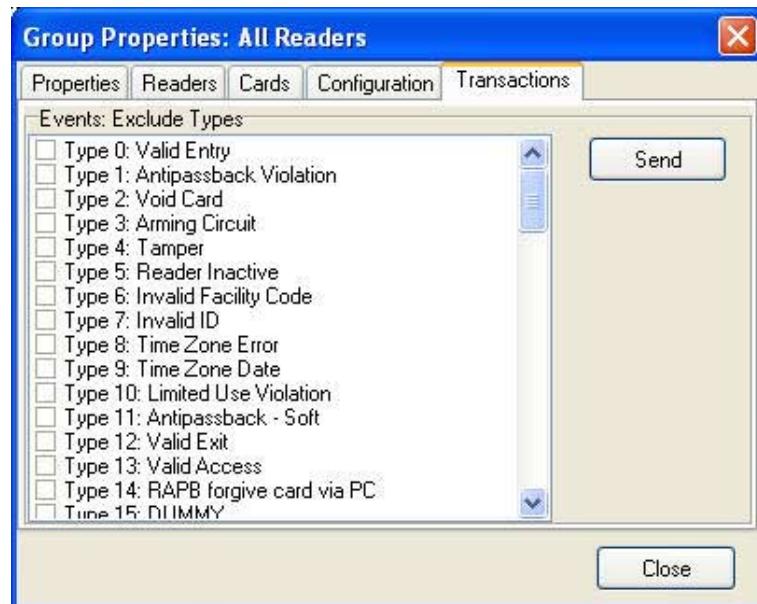
Card #	User Name - Access	Transaction Type	Reader ID/Location
	SKTRANSARC	RAPB forgive all via Reader	87-1/Lan100
	Testingtrans	RAPB forgive all via Reader	88-1/Lan100
		RAPB forgive all via Reader	89-1/Lan100
		RAPB forgive all via Reader	9-1/Lan100
		RAPB forgive all via Reader	90-1/Lan100
		RAPB forgive all via Reader	91-1/Lan100
		RAPB forgive all via Reader	92-1/Lan100

7.6 How can I eliminate some of the transaction records that I don't need to see?

You may exclude specific transaction types from the system audit trail. Transaction types to exclude can be selected for **All Readers** or for individual readers. Excluding some transaction types reduces the number of event records in **Transactions** and also conserves space in the event buffer of the SK-ACP and/or 28SA-PLUS.

7.7 How do I exclude Transactions in all readers?

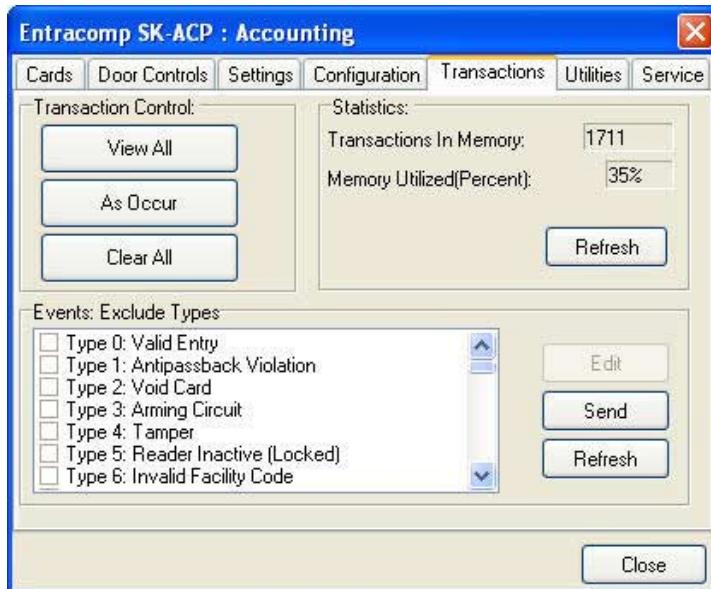
1. From the **Explorer** screen, right-click on **All Readers**.
2. Select **Properties**.
3. Click on the **Transaction** tab.
4. Place a check mark next to each transaction type you want to exclude. Click **Send**.



NOTE: Types 16-30 only apply to slave readers used with the 28SA-Plus.

7.8 How do I exclude Transactions in a single reader?

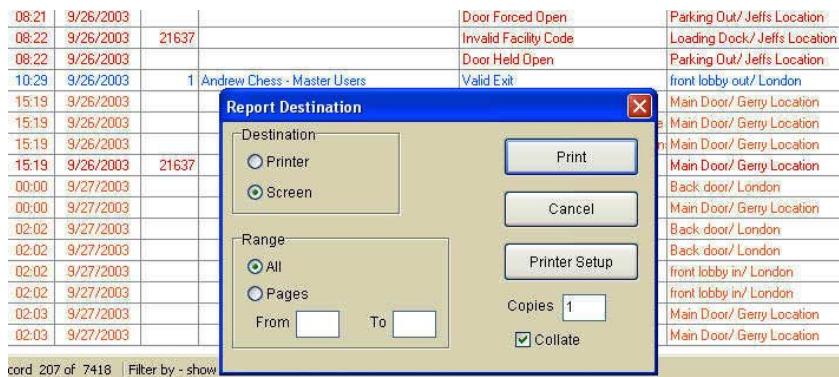
1. From the **Explorer** screen, right-click on the name of a reader.
2. Select **Properties**.
3. Click on the **Transactions** tab.
4. Click on the **Edit** button.
5. Place a check mark next to each transaction type you want to exclude. Click **Send**.



8. REPORTS

8.1 How can I print transaction records?

1. From the **Transaction** screen, apply what ever **Filters** are required to isolate the events of interest.
2. Click on the **Print** icon.
3. Choose **Screen** to preview the report. Choose **Printer** for a paper report.
4. Enter that **Page** numbers required, or select **All** for a complete report.
5. Click **Print**.



The screenshot shows a transaction history table on the left and a 'Report Destination' dialog box on the right. The table lists various events with columns for Date, Time, and Description. The dialog box has options for Destination (Printer or Screen), Range (All or Pages), and Print settings like Copies and Collate.

08:21	9/26/2003			Door Forced Open	Parking Out/ Jeffs Location
08:22	9/26/2003	21637		Invalid Facility Code	Loading Dock/ Jeffs Location
08:22	9/26/2003			Door Held Open	Parking Out/ Jeffs Location
10:29	9/26/2003	1	Andrew Chess - Master Users	Valid Exit	front lobby out/ London
15:19	9/26/2003				Main Door/ Gerry Location
15:19	9/26/2003	21637			Main Door/ Gerry Location
15:19	9/26/2003				Main Door/ Gerry Location
15:19	9/26/2003	21637			Main Door/ Gerry Location
00:00	9/27/2003				Back door/ London
00:00	9/27/2003				Main Door/ Gerry Location
02:02	9/27/2003				Back door/ London
02:02	9/27/2003				Main Door/ Gerry Location
02:02	9/27/2003				Back door/ London
02:03	9/27/2003				front lobby in/ London
02:03	9/27/2003				front lobby in/ London
02:03	9/27/2003				Main Door/ Gerry Location
02:03	9/27/2003				Main Door/ Gerry Location

cord 207 of 7418 | Filter by - show



NOTE: In any report screen, you may choose to save the report as a "PDF" or an "EXCEL" file. After you click on the print icon, select "Screen" and click "Print". Go to "File" and select "Save". In the "Save As" screen, go to the "Save As Type:" field and select ".pdf" or ".xls". In the "File Name:" field give the saved report a name.

8.2 How do I print a User Report?

1. From the **User** screen, sort the list the way you want it to appear on the report.
2. Click on the selector arrow next to the printer icon.
3. Choose **User Report** for a compact list of displayed users. Select **User Detail Report** for a complete profile of each user.
4. Choose **Printer** for a paper report or **Screen** to see a preview of the report.
5. Indicate the **Pages** desired, or **All** for a complete report.
6. Click **Print**.

Card #	Last Name	First Name	MI	Access Group
107	Rost	Chuck		Marketing Grp
33	Davis	Gray		Marketing Grp
21	Nguen	Khoa		Master Users

Report Destination

Destination
 Printer Screen

Range
 All Pages

From To

Print **Cancel** **Printer Setup**

Copies Collate

8.3 How can I print a full page with all of the information about a User, including the photograph?

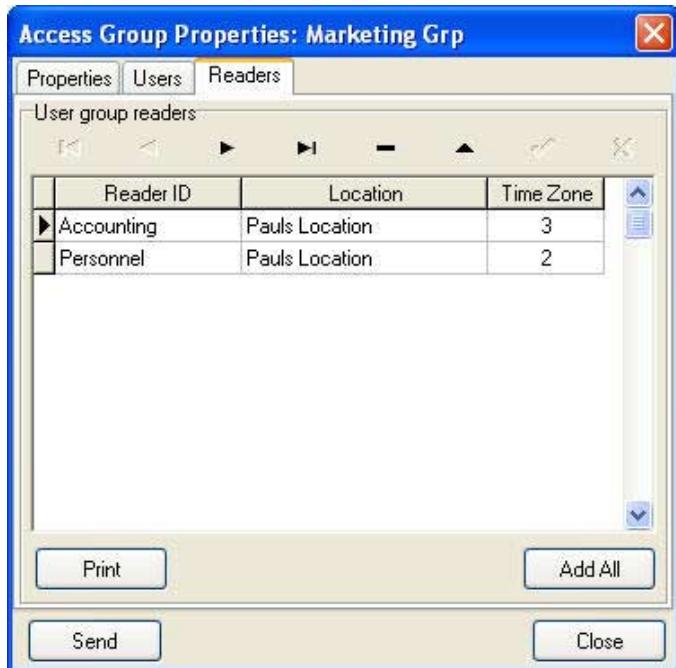
1. From the **User** screen, double-click on a user name.
2. In the **User Properties** box, click **Print**.
3. Choose **Printer** for a paper report or **Screen** to see a preview of the report.
4. Click **Print**.

8.4 How can I print a list of all the readers in a Location?

1. From the Explorer screen, click the Print icon on the toolbar.
2. Choose **Printer** for a paper report or **Screen** to see a preview of the report.
3. Click **Print**.

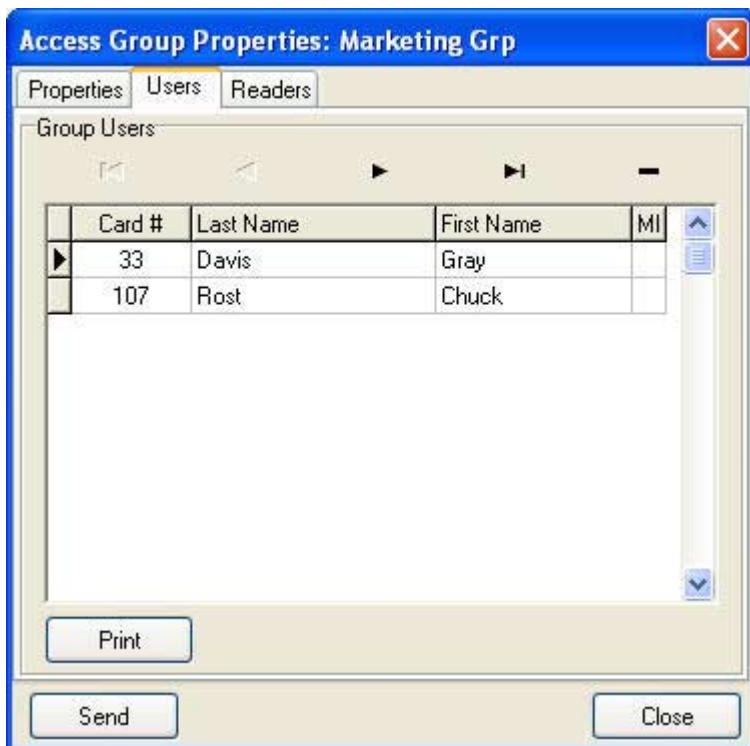
8.5 How can I print a list of all the readers in an Access Group?

1. From the Explorer screen, right-click on the name of the Access Group.
2. Select **Properties**.
3. Click on the **Readers** tab.
4. Click the **Print** button.
5. Choose **Printer** for a paper report or **Screen** to see a preview of the report.
6. Click **Print**.



8.6 How can I print a list of all the Users in an Access Group?

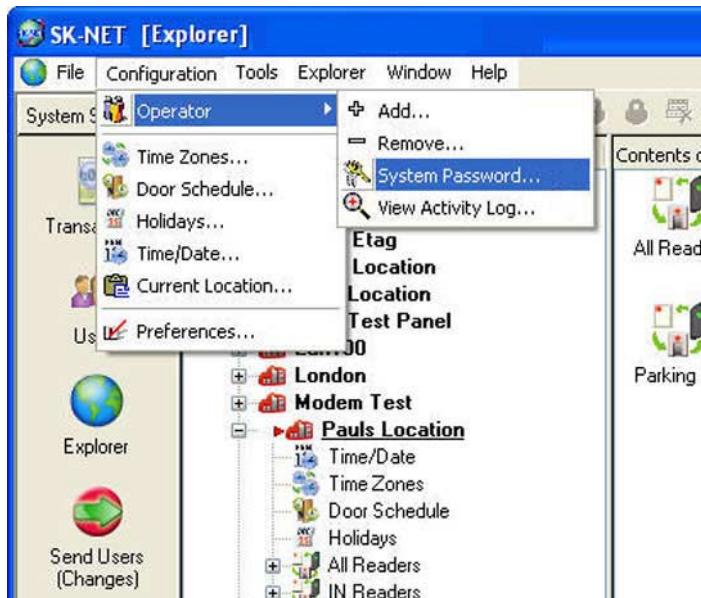
1. From the Explorer screen, right-click on the name of the Access Group.
2. Select **Properties**.
3. Click on the **Users** tab.
4. Click the **Print** button.
5. Choose **Printer** for a paper report or **Screen** to see a preview of the report.



9. SECURITY

9.1 How can I change my SK-NET™ password?

1. Click on Configuration in the top tool bar.
2. Select Operator.
3. Select System Password.
4. Enter the new password twice. Click OK.

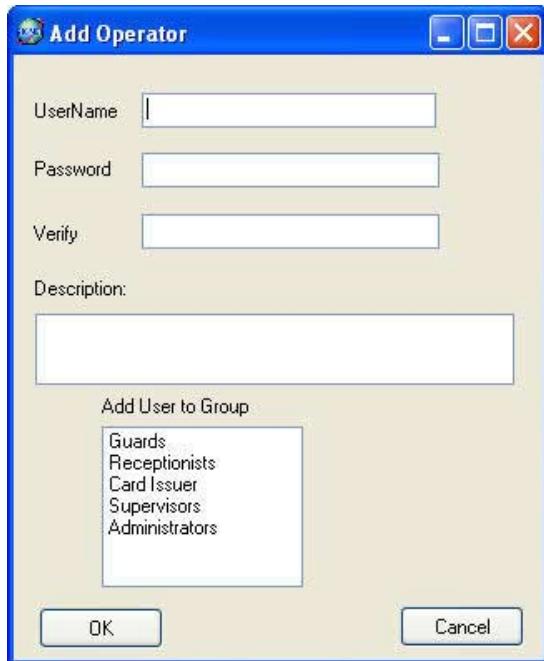


9.2 How can I issue multiple SK-NET™ passwords?

Client/Server versions of SK-NET-MLD allow you to enroll numerous operators, each with a unique password. **Operators** can be assigned to one of five different privilege levels:

- a. **Guards** – Able to view Transactions.
- b. **Receptionists** – Able to view User IN/OUT status.
- c. **Card Issuer** – Able to perform functions in the User screen.
- d. **Supervisors** – Able to perform functions in all screens, but not able to change system parameters or Location properties.
- e. **Administrators** – Full software privileges.

1. Click on **Configuration** in the top tool bar.
2. Select **Operator**.
3. Select **Add (+)**.
4. Enter the operator name, password twice and select the privilege level. Click **OK**.



9.3 How can I see what SK-NET™ operators have been doing in the software?

1. Click on Configuration in the top tool bar.
2. Select Operator.
3. Select View Activity Log.
4. Scroll up or down to see operator activity.

The screenshot shows a Windows application window titled "System Activity Log". The window has a standard title bar with minimize, maximize, and close buttons. Below the title bar is a toolbar with several icons. The main area is a scrollable table with four columns: OPERATOR, DATE, TIME, and ACTION. The table lists ten entries for the operator "Jeff" on December 8, 2003, at various times between 2:13:40 PM and 2:35:24 PM. The actions listed include Reader logout completed, Disconnected to location, and Connected to location. At the bottom left of the window is a button labeled "Erase All". At the bottom right is a button labeled "Close".

OPERATOR	DATE	TIME	ACTION
Jeff	12/8/2003	2:13:40 PM	Reader logout completed: Lan100
Jeff	12/8/2003	2:13:43 PM	Disconnected to location: Lan100
Jeff	12/8/2003	2:13:52 PM	Connected to location: Lan100
Jeff	12/8/2003	2:18:15 PM	Completed search new readers: Lan100
Jeff	12/8/2003	2:26:06 PM	Reader logout completed: Lan100
Jeff	12/8/2003	2:26:16 PM	Reader logout completed: Lan100
Jeff	12/8/2003	2:26:16 PM	Disconnected to location: Lan100
Jeff	12/8/2003	2:26:20 PM	Connected to location: Lan100
Jeff	12/8/2003	2:35:24 PM	Reader logout completed: Lan100
Jeff	12/8/2003	2:35:24 PM	Disconnected to location: Lan100

9.4 How can I keep unauthorized persons from connecting to my Locations?

SK-NET™ has a second set of passwords that are exchanged behind the scenes whenever a computer running SK-NET™ attempts to connect to a Location. This invisible password can, and should, be changed from the default (1,2,3,4,5).

1. From the **Explorer** screen, make sure that you are **Connected** to the **Location** where you want to set a new Password.
2. **Right-click on the Location.**
3. **Select Properties.**
4. **Click on the Key icon** (to the right of the word "Password").
5. Enter the new password twice. **Click Save.**



NOTE: If you have multiple Locations, it is best to set a different Location password for each.

10. DIAGNOSTICS

10.1 How can I tell if I am communicating with the readers?

In the **Explorer** screen, a red triangle next to the **Location** icon (the little red building) indicates that you are connected to that **Location**.

A green check mark next to a reader icon indicates that you are logged in to the reader. Being “logged in” means that complete, real-time communication is occurring.

Reader icons with red lines through them are readers that have failed to log in.

10.2 How do I know messages are being communicated between the software and the system?

If you place the software in the **Debug** mode, you will see network messages displayed at the bottom of the screen.

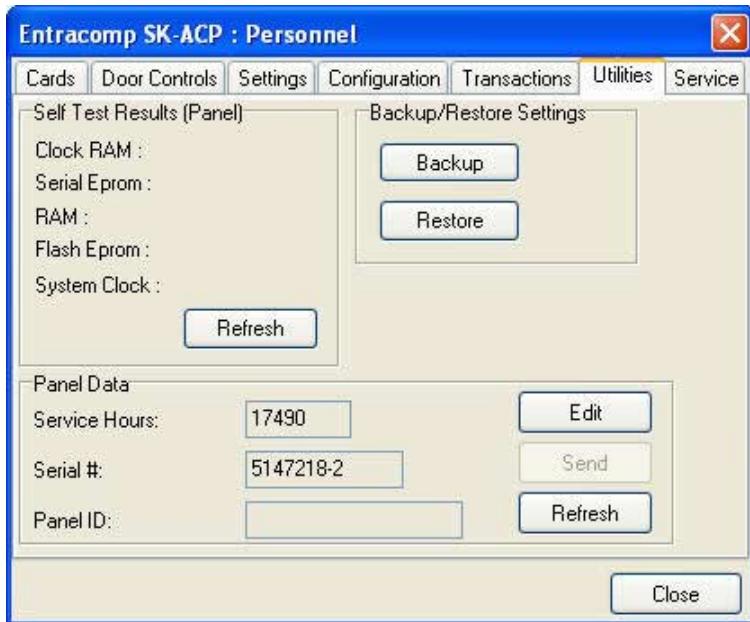
1. From the **Explorer** screen, click on the word **Configuration** in the top tool bar.
2. Select **Preferences**.
3. Click on the **Settings** tab.
4. Place a check mark next to **View Net Messages**.



10.3 How can I test an SK-ACP or 28SA-PLUS from my computer?

You may initiate a self-test using SK-NET™.

1. From the **Explorer** screen, right-click on the name of the reader you want to test.
2. Select **Properties**.
3. Click on the **Utilities** tab.
4. Click the **Refresh** button under Self-Test. Each item will display a Pass/Fail result.



10.4 How can I see what programming has been done in my system?

1. From the **Explorer** screen, click on **Configuration** in the top tool bar.
2. Select **Operator**.
3. Select **Activity Log**.

11. TROUBLESHOOTING

11.1 I've just created a new Access Group and assigned some cards to that group. The cards don't work.

- 1. Did you send the cards to the Location?**
 - a. From the **User** screen, click the **Send** icon.
- 2. Did you drag-and-drop readers into the new Access Group?**
 - a. From the **Explorer** screen, click on **All Readers**.
 - b. Drag-and-drop readers from the right side of the screen into the new Access Group.
 - c. Click on the "+" sign next to the new **Access Group** to view the readers in the group.
 - d. Perform a **Card Send**, as described above.

11.2 I have stopped seeing new transactions in the Transaction Screen.

- 1. Are transactions being filtered?**
 - a. From the **Transaction** screen, click on the **Filter** icon.
 - b. Set all Filter types to "All" or "First". Click **OK**.
- 2. Are you logged in to the Location?**
 - a. From the Explorer screen, open the All Readers folder to display reader icon(s). Are there Green check marks by each reader icon?
 - b. If readers do not have Green check marks (or have red lines through them). Is there a Red arrow next to the Location icon?
 - c. If there is a Red arrow, but readers are not logged in, click on the Log-In icon on the toolbar.
 - d. If there is not Red arrow or Green check marks, click on the Connect icon on the toolbar.

11.3 I've just added a new group of cards to my system. The new cards don't work and I get an Invalid Facility Code message in Transactions.

- 1. Do the new cards have a different Facility Code than the previous ones?**
 - a. Go to one of the SK-ACP panels or 28SA-PLUS readers. Take a card sample with each of the required Facility codes. Press the Reset button.
 - b. Present a sample card with each Facility Code to one of the readers attached to the SK-ACP (or to the 28SA-PLUS) while the LED is flashing Red and Green.
 - c. Repeat this process for each SK-ACP or 28SA-PLUS. For the SK-ACP, you can also send Facility codes to all panels through SK-NET™, like this:
 - d. From the **Explorer** screen, right click on the name of the reader that has the new Facility Code.
 - e. Select **Properties**.
 - f. Click on the **Service** tab. You should see the quantity of Facility Codes active in that panel.
 - g. Under **Facility Codes (Panel)** click **Edit**.
 - h. Click **Close**.
 - i. Click **Send To All**.
 - j. Click **Close**.
 - k. Right-click on **All Readers**.
 - l. Select **Backup**. Select **All Readers**.

11.4 The LED on my reader is flashing Red (or Green) and it won't read any cards.

A slowly flashing Red LED indicates that the reader is in the **Inactive** mode. A slowly flashing Green LED indicates that the reader is in the **Unlocked** mode. These conditions exist when someone has activated a **Door Control**, when an **Input** designated **Reader Inactive** is activated or when the door is unlocked by a **Door Schedule**. To check the door status:

1. From the **Explorer** screen, right-click on the name of the reader.
2. Select **Properties**.
3. Click on the **Door Controls** tab.
4. What is the **Current Door State**? This will help identify why the reader is in the Inactive or Unlocked mode.
5. Click on **Normal**. If the reader was made **Inactive** or **Unlocked** by a **Door Control** this will restore it.

11.5 I cannot log in to readers, I'm experiencing erratic communications, or no communications at all, between the PC and the readers.

1. Are you connected and logged in?

- a. In the Explorer screen, look for Green check marks next to the reader icons.
- b. Look for a red arrow next to the Location icon.
- c. Click on the Location name to highlight it.
- d. Click on the Connect icon in the toolbar.
- e. If you succeed in connecting, but still don't have green check marks, click on the Log-In icon.

2. Are you unable to connect to the Location?

- a. From the Explorer screen, right click on the Location name.
- b. Select Properties.
- c. Click on the Connection tab.
- d. Check the communication settings. Do they match your physical connection?
 1. RS-232 direct connections should be using a COM port, be set at 38,400 baud and "Gateway (RS-232)" should be checked. Try running the "Connection Wizard".
 2. Connection through a NET-CONV converter should not have "Gateway (RS-232)" checked. Baud rate should be 38,400.
 3. Connection via LAN, WAN or Internet should be made via TCP/IP and an IP Address and Port must be designated.
 4. Modem connections must have "Local Connect" unchecked and a modem phone number must be provided.

11.6 What is a power reset and how is it performed?

Occasionally it may become necessary to perform a power reset on a 28SA-PLUS or SK-ACP panel. (For example, after a power surge.) This procedure will reset the node address, requiring a recovery procedure in SK-NET™.

To perform a Power Reset:

1. Disconnect power from the reader or panel (including any backup battery)
2. Hold down the reset button.
3. While holding the reset button, restore power. Continue holding the button for two seconds.
4. The reader(s) will begin flashing RED/GREEN. This will stop after you perform the recovery sequence in SK-NET™.

11.7 If I still cannot establish communications, how can I determine if the problem is with the reader/panel or the computer?

If you cannot connect, it will be necessary to take voltage measurements to identify whether the problem is with the SK-ACP or with the computer.

RS-232 Direct Connection

1. From the Explorer screen, right-click on the Location.
2. Select Properties.
3. Click on the Connection tab.
4. Uncheck the box next to "Gateway (RS-232)"
5. Click on the Connect button.

The system will fail to connect, but in the process it will open the computer COM port, making a voltage test possible.

1. Voltages: Measure voltages at the gateway reader's terminal block, communications pins 1 to 5. Connect the ground lead to pin 1 (logic ground) for all measurements.
 - a) Pin 2 (Receive Data, RXD). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the PC. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be 0.0 VDC) and at the PC (should be between -5 VDC to -12 VDC).
 - b) Pin 3 (Clear to Send, CTS). The voltage should read between +5 VDC to +12 VDC. This voltage comes from the PC. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be 0.0 VDC) and at the PC (should be between +5 VDC to +12 VDC).
 - c) Pin 4 (Request to Send, RTS). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the Card Reader. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be -9.5 VDC) and at the PC (should be 0.0 VDC).
 - d) Pin 5 (Transmit Data, TXD). The voltage should read between -5 VDC to -12 VDC. This voltage comes from the Card Reader. If the voltage is wrong or missing, disconnect the reader from the PC, and measure the voltages at the reader (should be -9.5 VDC) and at the PC (should be 0.0 VDC).

After testing voltages, return to the Location/Properties/Connection box and re-check the box next to "Gateway (RS-232)".

NET-CONV Converter Connection

If you cannot connect and you are connected using the NET-CONV converter, test voltages as follows:

1. Measure input voltage from the converter power supply. It should be between 9VDC and 16VDC.
2. Measure voltage between Ground (minus side of power supply) and TD (A). It should be 0VDC.
3. Measure voltage between Ground (minus side of power supply) and TD (B). It should be between 2.5 VDC and 5 VDC.

If these voltages are incorrect, contact Secura Key Technical Support.

In SK-NET:

1. Follow the instructions in **Section 5.36** for finding "new readers".
2. During the "login" process, SK-NET™ will fail to login in the "old" readers but will succeed in logging in the "new" readers resulting from the reset. When asked if you want to "Retry" login, select "NO".
3. Click on the "+" sign next to **All Readers** to display all of the readers in the Location. The "old" readers will have red Xs on them. The "new" readers will display the same reader names and have green check marks next to them.
4. Drag-and-Drop the "new" reader(s) onto the "old" reader(s). This will clone the original reader properties into the "new" readers.

11.8 I have a large database. Should I perform any software maintenance?

Periodically, while no one is connected to the system, run the database utility. Go to **Start**, select **Programs** and click on **SK-NET™**. Select **Launch SK-NET™ Database Utility**.

Appendix A - SK-NET™ FEATURES

SK-NET™ is a Windows® (95/NT4.0 or higher) compatible software application program designed to monitor and control a network of up to 128 Secura Key ENTRACOMP® 28SA-Plus Smart Access Control Units, or 100 SK-ACP Two Door Advanced Access Control Panels.

SK-NET™ has three main screen displays:

- Transactions
- User Manager
- SK-NET™ Explorer

Transactions is the first screen which displays when SK-NET™ is started; it shows reader and system activity for the all Locations.

User Manager is the screen where card user data is displayed and access privileges can be entered into the system.

SK-NET™ Explorer is the screen which allows the user to configure the reader network and create or modify access groups and reader groups.

SK-NET™ Explorer shows the current configuration of all Locations, Reader Groups and Access Groups in the system. It allows you to add, delete, configure, or change Locations, groups or readers. When the Explorer screen is displayed, you may use various toolbar buttons to print a reader report, show properties of selected items, delete items, connect to or disconnect from Locations, log in to or logout from readers, control doors for a selected reader group or a reader, or change the configuration display format.

The SK-NET™ Explorer screen is divided into two sections: The left side shows the system configuration in an indented multi-level format (similar to Windows® Explorer). Each location, group, or reader is represented by an icon on screen. The right side of the screen shows individual icons for the currently highlighted location or group.

The highest level in the Explorer configuration window is SK-NET™ (the entire system) which includes all locations, groups, and readers controlled from the PC being used.

The second highest level is Location. A location includes all readers on a single network connected to the PC via a single COM port, TCP/IP address or a single modem location. Each Location can contain up to 128 28SA-PLUS units or 100 SK-ACP two-door panels.

A red triangle adjacent to the Location icon indicates that you are connected to that Location. Green check marks next to individual reader icons indicate that you are "logged in" to those readers. Being logged in means that transactions stored in the reader have been copied into the software and that you may view transactions as they occur in the Transaction screen.

The third level in the system is Groups. Each Location contains five default Groups: All Readers, IN and OUT Readers, Master Users and Void Users.

Because readers can belong to multiple groups, you will see the same icon appearing several times in the system configuration display.

To expand SK-NET™, a Location, or a Group to the detail level, click on the "+" icon just to the left of the item you want to expand. The "+" icon changes to "-" when it is expanded. If there is no "+" or "-" icon next to a Location or Group that indicates that nothing has been assigned to that Location or Group.

The Transaction Window shows the latest system events as they occur, for the Location which is currently connected to SK-NET™.

System events include card usage, input point status changes, reader status changes, and system messages.

Each event is displayed on a single line, and includes the time and date of the event, card number (for card transactions), User Name (if the name is stored in the database), Transaction Type (what happened), and Reader ID/Location (name of the reader and the Location to which the reader is connected).

The Transaction Window allows you to view the entire Transaction Database, by using the navigation buttons or the scroll bar to browse through the transaction records.

Transaction Database options include Print Transaction Reports, Erase, Change Colors, and Zoom In.

The Transaction Window normally shows data for all Locations (when filtering is not applied). Whenever SK-NET™ connects to a Location, all new transactions stored at the readers are automatically uploaded.

The User Manager Window allows you to display or change the Card User Database. You can add new card users or edit current user records. You may use the scroll bar or navigation buttons to view the entire Card User Database. You can also print user reports, search for an individual user, or optionally, select user databases for multiple locations.

The User Manager window defaults to a List format, one line per record. If you click on Zoom, the User Detail Screen is displayed for the currently selected user. You can also select a user from the list and double-click to display the record in User Detail format. Editing or adding cards is done by displaying the User Detail screen. The Navigation buttons work in either List or User Detail format.

Appendix B - WORKING IN WINDOWS

SK-NET™ uses many common functions available in Windows® 95 and later operating systems. For users who are new to Windows® software these are the functions you will need to know to use SK-NET™.

ICONS and TOOL BARS:

Icons are little pictures that represent functions or files in the software. Most of the operations you will perform in SK-NET™ begin by pointing at and clicking on an icon. Most icons in SK-NET™ will display a "prompt", a word description of the icon, when you point the cursor at it.

Toolbars appear at the top and on the left side of each screen in SK-NET™. Toolbars contain icons that allow you to perform functions or open files in the program. The topmost toolbar will be comprised of words. Clicking on these words brings "drop-down menus" listing functions that you may select.

MOUSE BUTTONS:

When we direct you to "**CLICK**" on something, we mean that you move your cursor with the mouse to point at that item and then you tap the left button on the mouse once. *This is usually done to select or highlight an item.* When we tell you to "**DOUBLE CLICK**", the only difference is that you tap on the left button twice in rapid succession. *This is usually done to launch a program or to start a function.*

When we tell you to "**RIGHT CLICK**", tap on the right mouse button once. *This is used to bring up a menu box that pertains to the item you are pointing at.*

When we tell you to "**DRAG-AND-DROP**" you first point the cursor at the item, then hold down the left mouse button and, while holding that button down, move the cursor to the location where you want to "drop" the item you are "dragging". When the item is in the new location, release the left mouse button to "drop" it. We use drag-and-drop in the Explorer screen to make it easy for you to add individual readers to access groups and hardware groups.

EXPLORER:

One of the principal screens in SK-NET™ is **SK-NET EXPLORER**. This screen is modeled after the well-known Windows® Explorer. On the left-hand side of the screen you will see all of the elements of your system in a "tree" format. If an item in the tree has a plus (+) or minus (-) symbol next to it, it represents a folder. Clicking on the + symbol "opens" that folder and

displays what is inside. For example, the folder called “**ALL READERS**” contains an icon for every reader in the system. Clicking on the + symbol next to the ALL READERS icon will display icons for each reader, underneath the ALL READERS heading.

On the right-hand side of the screen you will see icons representing whichever part of the Explorer tree you have highlighted. For, example, if you CLICK on ALL READERS the right-hand side of the screen will display one icon for every reader in that location.

HELP:

SK-NET™ has extensive help, which you can access by clicking on Help on the top menu bar, or by pressing F1. Much of the information in this manual is also included in the on-line Help System.

To learn more about the functions of various icons or “buttons”, click on Help or press F1, select Contents, Getting Started, then SK-NET™ Desktop. Pressing F1 in the main windows (Explorer, Transactions or User Manager) also offers context-specific help for those screens.

SYSTEM COMPONENTS

SK-ACP-LE



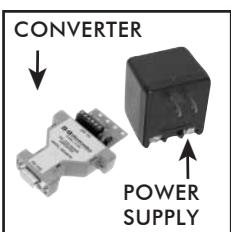
SK-LAN



SK-MDM



28SA PLUS



NET-CONV-P



SK-PLUG9



SK-USB

DTK-XR
SURGE PROTECTOR

CBLSA

SK-ACP:

Two Door Access Control Panel

SK-LAN:

External device server for Ethernet connection

SK-MDM:

External 56K modem

28SA-PLUS:

Card access control unit for single or multi-door applications

NET-CONV-P:

RS232 to RS485 converter with power supply

SK-PLUG9:

DB9 computer connector

SK-USB:

USB to RS-232 converter for computers without com Ports

DTK-XR:

Surge protection for power, data and phone lines

CBLSA:

Cable kit for use with laptop computers



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