
Getting Started Guide (MSL/DMS/EMG)

**Introduction to Switch Expert™
&
Installation Procedures**

Real Time Monitors, Inc.

Switch Expert™ Version 5.5



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INSTALLATION OVERVIEW (SERVER):

Install the Switch Expert (SE5.0) server software on a Windows NT 4.0 (**SP-5 128 Bit Strong Encryption**) or greater PC prior to installing the client software. [Switch Expert clients prior to version 4.0 must be upgraded to version 5.0 before they can logon to the SE5.0 server.](#)

Note: You need to locate the IP address or name of the PC where the Switch Expert server application will be installed. When the Switch Expert client application is launched, the user will be presented with a “Logon to Server” dialog. The user must enter the server’s IP address or computer name in the appropriate dialog fields to establish a client/server connection.

SWITCH EXPERT INSTALLATION:

Hardware (Server):

1. Install the server PC that will host the Switch Expert server application (**Requires Administrative Rights**).
2. INSTALL CABLES FROM IOC/IOM TO SERVER.
 - Cable (1) Operational Measurements (OM)
 - Cable (2) System Events Monitor (SEM)
 - Cable (3) Command Polling (CMD) (Optional)
 - Cable (4) Secure Switch Access (SSA) “(Optional) SSA can use multiple switch connection”
 - Cable (5) Call detail Recording (SMDR) “SMDR can use multiple switch connection”
3. SWITCH EXPERT CONFIGURATION Page 4
4. INSTALL THE PCI RELEAY & DIGI CARD Page 5
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Software (Server):

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Software (Client):

The Switch Expert Client (Requires Internet Explorer 3.02 or greater):

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Switch Expert™ Configuration

MSL/DMS CO
Meridian 11-81 PBX

Data Specific
RS-232 Data Links

Alarm
Interface

CRVISLOOP	Alarm Block
MJVISLOOP	Environmentals
MNVISLOOP	Air, Power etc.

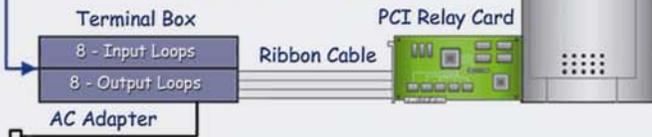
- Meridian ACD-C1 & Queue Stats
- SMDR / CDR
- Traffic
- System Events
- Secure Remote Access
- Command Polling

Switch Expert
Server or standalone runs on
Windows NT40/2000 workstation

Firewall

IP Network

Alarm Interface Unit



- Email & SNMP
- Event Notifications
- Encrypted Clients
- Secure Switch Access

Switch Expert Clients run on
Windows 95, 98, NT40 and 2000

SMTP Mail
Server



Email notification via
customer definable
system events and
triggers

SNMP
Manager



System alarm
monitoring and
traps recipient

Operations



Switch performance
and maintenance

Engineering



Trunk groups
and DS1/DS30
provisioning

Unit Supervisor



ACD, UCD, SLU and
Attendant Consoles
Traffic

INSTALLATION PROCEDURES (Server):

APPLICATION REQUIREMENTS (Server):

1. TCP/IP must be installed on your network and the client's PC.
2. The Switch Expert server will use a dedicated "Winsock" port to listen for client connections (default port # = 80). The clients must enter this port number during the logon process.
3. Locate the computer's name or IP address of the PC hosting the Switch Expert server software. The clients must enter the server's computer name or IP address during the logon process.

INSTALL PCI RELAY & DIGI CARDS (Server):

1. Remove power from the server PC by disconnecting power cable from PC.
2. Using appropriate tool, open the case of the server PC.
3. Locate a standard PCI slot and gently insert PCI Relay card into slot.
4. Locate another standard PCI slot and gently insert DIGI communications card into slot.
5. Secure card in slot with PC supplied screws.
6. Close and secure PC case.
7. Reconnect power cable and boot machine.
8. Insert DIGI driver CDROM into drive and follow setup instructions to install Accelport 8p
9. Insert Access I/O Product CD and select "Access PCI-IIRO-8" from the available list when prompted.

INSTALL ALARM INTERFACE UNIT (Server):

1. Locate Alarm Interface Unit (AIU) and remove from shipping package.
2. Install card into an available PCI slot
3. Connect ribbon cable to previously installed PCI relay card.
4. Secure with attached screws.
5. Plug AC adapter into a standard 120v outlet. Note: This adapter supplies the voltage used to detect loop closures.

Table **ALMSD** contains three predefined SD points. Use these points to connect the switching system's alarms to the T-BOX.

1. The alarms are named CRVISLOOP, MJVISLOOP and MNVISLOOP.
2. **IMPORTANT** Verify on the 2X57 that the Signal Distribution (SD) points are set to LOOP closure as illustrated below and there is no voltage on the Tip or Ring when operated or released. Switch settings = A is Set, 1 is On, 2-4 Off.



3. Locate the SD points on the MDF alarm block. If the SD points are in consecutive order i.e. SD 4 3, 4 4 and 4 5, one method to find the points is to operator all three points and look for three consecutive pairs that have continuity on the alarm block. Release the points one at a time and verify the continuity was removed.
 4. Run a 3 pair IW or some other type of cable from the alarm block to the Switch Expert server.
 5. Locate the T-BOX and terminate the alarms as illustrated on the inside cover of the T-BOX.
-

-
6. The CRVISLOOP terminates on pins 1 & 38, the MJALVISLOOP on pins 2 & 39, and the MNVISLOOP on pins 3 & 40.

SECURITY (Server):

Connecting a networked PC to a switch port could possibly provide access to a potential hacker. RTM highly recommends you disconnect pin 3 DB9 or pin 2 DB25 “Transmit Data” from the PC’s end of the all RS232 cables except Command Polling (CMD) and Secure Switch Access (SSA).

SECURITY KEY INSTALLATION (Server):

USB:

Connect the Marx USB key to any available USB on the server.

Parallel:

Connect the RAINBOW Sentinel SuperPro key included in the installation kit to the parallel port of the Server PC. If you have a printer cable connected to your parallel port, disconnect the printer cable, install the Sentinel key, then connect the printer cable to the end of the Sentinel key.

This key must remain on the parallel/USB port at all times for Switch Expert to function.

DEFAULT PASSWORD (Server):

The Switch Expert server maintains a default password. The password is required to modify archived data files and to shut down the Switch Expert server application.

Switch Expert also provides a default client, user name = **ADMIN**. The ADMIN client uses the default password when logging on to the server. The ADMIN client has full access to all modules and groups. The ADMIN client “when enabled” has privileges to modify server options (see **REMOTE ADMIN ACCESS**, page 15). You should change the default password via the server’s menu item “**Settings**”, sub item “**Change Password**”.

SOFTWARE INSTALLATION (Server):

1. Insert the supplied Switch Expert CD into the servers CD-ROM drive.
 2. From the Windows NT Start button, select Run. Press the Browse button, and navigate to the drive where you inserted the Switch Expert CD-ROM in step 1. Select the **Server** folder and then select the **Setup.exe**. Press the **Open** button. In the Run dialog, press the OK button.
 3. Switch Expert setup will guide you through the next steps of the installation. **Follow the setup instructions until you see the Setup Complete dialog.**
 4. **Sync the server's clock to the switch by setting the server's time to your switch time "Just get it close", then restart your computer.**
 5. After Windows restarts, launch the Switch Expert application by pressing the **Start button**, select **Programs** from the menu, move the pointer to **Switch Expert 5.0**, and then select **Switch Expert 5.0** or use the desktop shortcut.
 6. Press the "**Setting**" menu item and then "**Server Options...**" item.
 7. Select the "**Comm**" tab.
 8. Enter the desired parameters for the OM, SEM, CMD and CDR ports and press OK. Note: CMD requires additional parameter i.e. a valid User Name, Password and a Polling Interval. See Command Polling for further instructions (Page 16).
 9. From the **File menu**, select **Save Settings**.
 10. Switch Expert server installation is now complete.
 11. Press the "**Setting**" menu item and the "**Server Options...**" item.
 12. If you want Switch Expert to email when it detects anomalies such as data missing on the Switch Expert defined links. Perform steps 13 and 14.
 13. Press the "**Setting**" menu item and the "**Server Options...**" item. Then data fill the defaults page.
 14. Enter a valid SMTP mail server SE will use to send emails, enter a valid email default from address, enable the ADMIN notification and enter the email address of the person to receive these notifications.
-

Starting the Switch Expert 5.0 (Server):

Switch Expert will automatically attempt to start the server process on a predefined “**Winsock**” port (80). You may verify the process started by checking the information located in Switch Expert’s “**General Status**” tab window located on the bottom of the main frame’s window. You may also check or change the server port from the **Server Port** tab in the **Server Option...** dialog.

DATA FILL (SEM) (Switch):

You may route all system logs and OMRS reports to the System Events Monitor (SEM) port. **Do not route OMPR reports to the SEM port, they will cause warnings within the application and prevent real-time tracking of system events.**

The LINE138, TRK138 and AMAB 150 should be suppressed, as the high volume of reports requires a significant amount of system resources and generally server no useful purpose. Please set the TERMTYPE in table TERMDEV to FPRT (Fast Printer, No NULL characters).

SAMPLE DATA FILL (OMs) (Switch):

DEFINING THE OMCLASS:

Switch Expert (SE) was designed to process the following OM groups. Please do not route any other OM groups or OMPR reports to the SE OM port. Switch Expert is expecting to see the following groups every thirty minutes. **Please follow the sample data fill closely**, if you have any question please call RTM.

Defining a new class from the CI Level of the MAP:

>OMCLASS SWEXPERT SINGLE “If this fails you must rename or assign an existing class with the following groups”

Add module groups Switch Expert will process: “Switch Expert will process the following groups; all other OM groups or OMPR reports will cause errors”

>OMACCGRP SWEXPERT ADD GROUP IBNSG	(Console module)
>OMACCGRP SWEXPERT ADD GROUP IBNAC	(Console module)
>OMACCGRP SWEXPERT ADD GROUP TRK	(Trunk module)
>OMACCGRP SWEXPERT ADD GROUP ACDGRP	(Automatic Call Distribution module)
>OMACCGRP SWEXPERT ADD GROUP UCGRP	(Uniform Call Distribution module)
>OMACCGRP SWEXPERT ADD GROUP OFZ	(Office Traffic module)
>OMACCGRP SWEXPERT ADD GROUP HUNT	(Hunt Group Traffic module)
>OMACCGRP SWEXPERT ADD GROUP VFGUSAGE	(Virtual Facility Group Traffic module)
>OMACCGRP SWEXPERT ADD GROUP LMD	(Line Module Traffic module)
>OMACCGRP SWEXPERT ADD GROUP TRA125M1	(Subscriber Line Usage module)
>OMACCGRP SWEXPERT ADD GROUP TRA125M2	(Subscriber Line Usage module)
>OMACCGRP SWEXPERT ADD GROUP TRA250M1	(Subscriber Line Usage module)
>OMACCGRP SWEXPERT ADD GROUP ENG640M1	(Subscriber Line Usage module)
>OMACCGRP SWEXPERT ADD GROUP RCF	(Remote Call Forwarding module)
>OMACCGRP SWEXPERT ADD GROUP ANN	(Announcements)
>OMACCGRP SWEXPERT ADD GROUP CF3P	(3 Port Conference Circuits)
>OMACCGRP SWEXPERT ADD GROUP CF6P	(6 Port Conference Circuits)
>OMACCGRP SWEXPERT ADD GROUP RSCIR	(Remote Switching Center Inter)
>OMACCGRP SWEXPERT ADD GROUP RSCIS	(Remote Switching Center Intra)
>OMACCGRP SWEXPERT ADD GROUP SITE	(Site)
>OMACCGRP SWEXPERT ADD GROUP XPMLNK	(XPM Links)

SAMPLE DATA FILL (continued)

TABLE OMREPORT (Route the **SPMS** report to the SE OM port every morning at 5:00 am):

SCHEDNO	ACTIVE	DEV	WHEN	CLASS	
21	Y	DEVDAY	5 C00	HOLDING	SPMSREP

Assign this OMRS report number to the class routed to the Switch Expert OM port. See **TABLE LOGCLASS** below.

DEFINING OM AND LOG RELATED TABLES:

TABLE OMACC:

CLASS	ENABLED	PRECSN	WHEN
SWEXPERT	Y	SPRECISION	HALFHOURLY C00

TABLE OMPRT:

REPNO	ACTIVE	SUPZERO	PRTSPEC	WHEN	BUFFOUT	OUTDEV
216	Y	N	ALLCLASS SWEXPERT	HALFHOURLY C00	N	SINK

Port

TABLE LOGCLASS: (The IBN 130 and IBN 131 are required for the Console module only)

At this point, please call RTMI (310) 796-6277 to discuss data fill for this table.

REPNAME	CLASS	THRESHLD	SUPPRESS	TUNITS	SYSLOG
OMPR 216	21	0	N	0	N
IBN 130	21	0	N	0	N
IBN 131	21	0	N	0	N
TRK 138	20	0	Y	0	N
LINE 138	20	0	Y	0	N
OMRS 21	21	0	N	0	N "Routes the SPMS REPORT to Switch Expert"

TABLE TERMDEV: ** (Specify FPRT under the TERMTYPE option for all ports except RTM_SSA) ******

TERMDES	IOCNO	CKTNO	TERMTYPE	BAUDRT	INTYP	EQPEC	PRTY	GUAR	MODEM	COMCLASS	CKERDISH
RTM_OM	1	4	<u>FPRT</u>	B4800	EIA	1X67BD	NONE	N	NONE	NONE	Y
RTM_SEM	1	8	<u>FPRT</u>	B9600	EIA	1X67BD	NONE	N	NONE	NONE	Y
RTM_CMD	1	12	<u>FPRT</u>	B2400	EIA	1X67BD	NONE	N	NONE	ALL	Y
RTM_SSA	2	4	<u>VT100</u>	B9600	EIA	1X67BD	NONE	N	NONE	ALL	Y
RTM_SMDR	2	8	<u>FPRT</u>	B9600	EIA	1X67BD	NONE	N	NONE	NONE	Y

TABLE LOGDEV: ** (You may route the OMRS classes to the RTM_SEM but not the OMPR classes.) ******

DEV	ALT	CLASSES	FORMAT	PRIORITY	GUAR
RTM_OM	RTM_OM	'(21)'	STD	N	N
RTM_SEM	RTM_SEM	'(0-20, 22-31)'	STD	N	N

SAMPLE DATA FILL (continued):

INDIVIDUAL ATTENDANT STATISTICS:

Switch Expert can monitor and associate individual attendant console operator statistics by enabling the console logon feature:

TABLE OFCENG: ((Console module) Set parameter to Y) requires the operators to logon to the console via a LOGIN ID.

PARAMETER	VALUE
SCREEN_AC_LOGIDS	Y

TABLE FNMAP: ((Console module) Assign a LOGIN key to each console.)

KEY	RESULT
ATTCON1 41	SPECL LOGIN

TABLE ACLOGID: ((Console module) Assign a LOGIN ID for each attendant.)

LOGINID	CUSTINFO	USERNAME
101	N	OPERNAME

Start the OMS and LOG devices in LOGUTIL:

```
>LOGUTIL;  
>STARTDEV RTM_OM  
>STARTDEV RTM_SEM
```

DATA FILL (SMDR) (Switch):

See: 555-4001-119 ASCII SMDR Data Access Description and Implementation for details on routing SMDR to an ASCII port. The Switch Expert SMDR module provides toll fraud monitoring, simultaneous auth-code abuse and allows you to query calls as soon as they terminate. **Important:** It is very possible to cause an overflow condition on a single SMDR link. This is a limitation of the link's baud rate and can be corrected by either increasing the link's baud rate or adding additional links (SE can process up to six links). Use the command **OMSHOW SLLNK ACTIVE** during your busiest time and verify the register SLLNKOVF = 0. If overflows are occurring, you should reduce the number of records produced or increase the number of links in the pool.

RTM_SMDR is the name of the port/device from TABLE TERMDEV.

Data fill Table SLLNKDEV:

DEVNAME	DEVTYPE	XLATION	PROTOCOL	DIRECTION	XFERS
RTM_SMDR	1X67*	BCDTOASCII	NONE	OUTLK	SMDRRPT

*Specify 1x67 for IOC or IOM ports.

Use this procedure to start and stop the ASCII SMDR data stream.

Start the SMDR device:

From the CI level of the MAP

1. >L NKUTIL
2. >L NKSTAT ALL
3. >DEVCON RTM_SMDR "Creates a new pool RTM_SMDR and connects the device RTM_SMDR to it"
4. >DEVSTART RTM_SMDR SMDRRPT
5. >L NKSTAT ALL
6. >QUIT
7. >SMDRLNK
8. >SMDRSTAT ALL
9. >SENDSMDR RTM_SMDR
- 10.>SMDRSTAT ALL
- 11.>QUIT

Stop the SMDR device:

1. >SMDRLNK
2. >SMDRSTAT ALL
3. >STOPSM DR RTM_SMDR
4. >SMDRSTAT ALL
5. >QUIT
6. >L NKUTIL
7. >L NKSTAT ALL
8. >DEVSTOP RTM_SMDR SMDRRPT
9. >DEVDISC RTM_SMDR
- 10.>L NKSTAT ALL
- 11.>QUIT

Verify the Switch Expert server's communications port for CDR Link1 is enabled and set to the correct Baud Rate. Switch Expert can also save the SMDR records in their raw format in daily files. This feature provides a SMDR back up for your management system. Enable this feature while setting the communication setting for SMDR.

Activate DA **Calling Number** extension records across PRI trunks via **TABLE CUSTSMDR:** option **NETWORK**

OPENSECRET COMMAND POLLING (CMD) (Switch):

The OPENSECRET Command Polling (CMD) allows SE to poll all the secret logs from logutil. These secret logs when enabled, record every command entered into the MSL-100 system and record all table reads and writes. Note: SE must logon to the MSL-100 to poll the secret logs.

Enable the OPENSECRET command polling by providing SE with dedicated switch port used for polling the logs.

Provide SE with a valid USER NAME and PASSWORD that has the privileged class commands enabled:

POS on the following commands and change to DSPS

LOGIN \$

LOGOUT \$

LOGUTIL \$

OPENSECRET LOGUTIL

OPENSECRET LOGUTIL

BACK LOGUTIL

QUIT LOGUTIL

ABORT \$

PASSWORD \$ – Switch Expert changes the password nightly

To prevent any problems with the nightly image, make these commands DUMP SAFE (DSPS).

Use the Server Options, Communications Port Command Polling (CMD) settings page to enter the USER NAME and PASSWORD along with a polling delay time. Set the polling delay parameter to zero (0) to disable the polling.

There are additional commands in the server's CMD Raw Data window. This window is located on the bottom of the main frame. Right click to see the following menu commands.

Start Polling – Starts the polling process

Stop Polling – Stops the polling process

Command Mode On – Allows you to send commands to the CMD port

Command Mode Off

Enable (SECU) feature in TABLE CMDS by setting the LOGONUSE field to Y for all commands. **See NOTE 1**

Enable (TABL) feature in TABLE CUSTPROT by setting the VALACC field to ALL for all tables.

Table OFCOPT Monitor_Table_Access to Y **this option can only be changed by ETAS**

Table OFCVAR Table_Access_Control to Y

The first time switch Expert polls the secret events; it will create new dates for previous dates or add to previous SEM files already processed.

NOTE 1: IMPORTANT

To prevent looping, the following commands issued by Switch Expert must not be set for logging:

LOGUTIL \$

OPENSECRET LOGUTIL

BACK LOGUTIL

You must set the LOGONUSE field in TABLE CMDS to N for the above commands.

QLEN STORE FILE SETUP (Optional) (Switch):

Switch Expert can track the number of working and HASU LENS and associate them with their respective line module. This is accomplished by data filling table AUTOEXEC to run a special Store File (SF) every night. The SF performs a QLENWRK and QHASU and then sends the results to Switch Expert for processing.

1. Enable this function by creating a store file named **RTMQLEN** and place the following commands in it.

```
> LISTSF ALL
> ERASESF RTMDATA          "NOTE: Erases the previous night's data"
> SEND SFDEV RTMDATA      "NOTE: Creates the store file that will receive the LEN information"
> QLENWRK ALL ALL NLCC $ S
> Y
> Y
> QHASU ALL ALL NIL_CC N S
> Y
> Y
> SEND PREVIOUS
> LOGUTIL
> LISTSF ALL
> SEND RTM_OM             "NOTE: The next three lines send the LEN information to Switch Expert"
> PRINT RTMDATA
> SEND PREVIOUS
> STARTDEV RTM_OM        "NOTE: replace RTM_OM with the name of your Switch Expert IOC OM port"
> QUIT
```

2. You do not want to send the LEN information to the Switch Expert's OM port while it is processing the scheduled OM transfer data. Therefore, before table AUTOEXEC can be data filled to run the SF, you need to know how much time it takes to process one transfer period of OM data. The easiest method to discover the time span is to view the file statistics associated with the "**Recover.oms**" file located in the root directory of the Switch Expert server. This file has hidden attributes so you'll need to change the viewing options of the Windows File Manager to see the file. Right click on the "**Recover.oms**" file and select "**Properties**". This file is **Modified** ten seconds after the OM transfer period stops. Use the file's "**Modified**" time to determine the OM transfer duration.
3. Now you know the time it takes to process a single OM transfer period, the time remaining can be used to process the RTMQLEN SF. Note the **RTMQLEN** SF creates another SF called **RTMDATA**. This SF contains all the LEN information in the expected format.
4. We also need to know how much time **RTMQLEN** SF takes to process. Read the file and time how long it takes to complete, if this time plus the time used to process the OMs is less than 30 minutes, you can data fill table AUTOEXEC to read the **RTMQLEN** directly after the completion of the OM data transfer.

TABLE AUTOEXEC:

AEKEY	TIME DURATION	USER	EXEC
AUTOEXEC	3 15 55	ADMIN	RTMQLEN

If you do not have enough time to run the **RTMQLEN** SF, try increasing the BAUD rate of the Switch Expert IOC/IOM port or removing unwanted OM groups via the OMACCKEY command.

CLIENT SETUP:

Switch Expert clients running on Windows 95/98 require Internet Explorer 3.02 or greater.

NOTE: Switch Expert must process at least one transfer period of switch data before you can associate it to the client.

Client setup information may be found in the server's on-line help:

1. Select the "**Help Files**" tab on the Switch Expert "File Manager" window.
 2. Select the "**Switch Help Files**" book.
 3. Select the "**Network**" book.
 4. Select the "**Server Side**" book.
 5. Select the "**Client setup dialog**" topic (**review this topic**).
 6. Select the "**Create a new client**" located in the bottom of the help topic.
 7. Follow the topic's steps.
 8. Select the "**Changing client access privileges**" located at the bottom of the help topic.
 9. Perform the "**To add client's access privileges**" steps.
 10. The client you added may now logon to the server application.
-

SLU SETUP (Server):

Assign the SLU scan rates from "TABLE OFCVAR" to Switch Expert.

Follow the instructions from the help topic "SLU Setup (Names and Scan-Rates)" located in the Switch Expert on-line help book "Subscriber Line Usage".

LMD SETUP (Server):

Assign the number of equipped links for each line equipment controller reported in the LMD OM group.

Follow the instructions from the help topic "Line Module Link Setup" located in the Switch Expert on-line help book "Network" sub-book "Server Side".

Note: The help files contain a considerable amount of information pertaining to the functionality and operation of Switch Expert. If you can not find the answers to your questions, please call RTM for support.

REMOTE ADMIN ACCESS:

The default user name ADMIN has the ability to remotely administer general server options to include client assignment. By default, ADMIN has no access rights to the server's options. You can enable remote ADMIN access by modifying a specific server page.

For example, allow a client logged on as ADMIN to administer client assignment.

Access the server's client setup dialog box by:

1. Pressing the menu item "**Network**".
2. Select the "**Client Setup**" command.
3. Place a check mark in the "Enable the ADMIN client to access client setup" check box.
4. Press OK.
5. From a client PC, logon to the server using the ADMIN username and password. **Note:** the ADMIN password is the same password used to shutdown the server.
6. Press the "**Network**" menu item and select the "**Client Setup**" command. **Note:** the client and server versions must match for remote ADMIN access.
7. Perform modifications as normally done at the server. **Note:** you must press OK for any changes to be applied to the server.

To enable ADMIN access to general server options, perform the following:

From the server, access the "General Server Options" page by pressing the "**Settings**" menu item and selecting the "**Server Options**" command.

Each tab or page can be enabled or disabled. Enable access to the individual pages by placing a check mark in the "Enable ADMIN" check box located on the bottom of each page.

INSTALLATION PROCEDURES (Client):

Switch Expert clients running on Windows 95/98 require Internet Explorer 3.02 or greater.

1. Verify Internet Explorer 3.02 or greater is installed on client machine.
2. Insert the Switch Expert CD into your PC's CD-ROM drive
3. From the Windows NT 4.0 or Windows 95 Start button, select Run. Press the Browse button, and navigate to the drive where you inserted the Switch Expert CD-ROM in step 1. Select the **Client** folder and then select the **Setup.exe**. Press the Open button. In the Run dialog, press the OK button.
4. Switch Expert setup will guide you through the next steps of the installation.
5. Launch the Switch Expert application by pressing the **Start** button, select **Programs** from the menu, move the pointer to Switch Expert 5.0, and then select Switch Expert 5.0.
6. A dialog will prompt you to Logon to Server.
7. Use the default client name **ADMIN** and password to logon to the Switch Expert server, or use a customer-defined client. **Note:** You assign new clients via the server's "Client Setup dialog".
8. You need to know the computer's name or IP address where the Switch Expert server application is installed. You also need to know the port the server application is monitoring for client connections.
9. Enter required information in the appropriate dialog fields.
10. Verify your server connection by viewing the information in the "Server Activity" tab window.
11. Use the online help information located in the "Help Files" tab of the Switch Expert "File Manager" window.

Client Logon Troubleshooting:

If you are unable to logon to the Switch Expert server using a valid user name and password, and you are receiving messages in the "Server Activity" tab window that resemble the following:

"The socket is not already bound to an address."

"The server machine is unreachable."

Verify you can ping the server PC utilizing the following steps.

1. Access the DOS command prompt.
 2. Ping the Switch Expert server application "hostname", where the "hostname" is the name of the computer where the Switch Expert server application is installed. From the DOS command prompt, type the following: **PING hostname**, and then press the return key or specify the **IP** address in-place of the hostname, i.e., **PING 124.64.1.1**, press return key.
 3. One of the pings must reply. Enter the same parameters, i.e., hostname or IP when logging on to the server. If both pings fail, there is an IP network incompatibility requiring assistance from your network administrator.
-

INTRODUCTION TO SWITCH EXPERT:

1. Open a trunk monitor report:

- Locate the **Trunk Group Monitor** item in the Switch Expert file manager.
- Double click on the item or drag and drop the item into the main client area.

You can accomplish the same task by using the menu commands:

- Select the **“New”** command from the **“File”** menu.
- Then select the Trunk report tab, and either double click on the Trunk Monitor icon or highlight the Trunk Monitor icon, and press OK.

2. Each Group Monitor report displays the current date’s information provided by the OM data with each group name underlined. Clicking on the group name will display a new window expanding the selected group into its smallest increments. **Note:** Any Switch Expert underlined field may be clicked, expanding the report.

3. Press the F1 key for help on any Switch Expert view. Activate the online help view in the Switch Expert file manager by pressing the **“Help Files”** tab located on the bottom of the file manager window. View the **“Report Types”** under Getting Started, and the **“How To”**.

4. The **Report Wizard** creates long-term traffic studies. The procedures are located in the online help. Expand the **“Network”** book, then select the **“Report Wizard”** book, and then select **“Accessing the Report Wizard”** topic.

5. Creating charts:

1. Place the mouse over the row you wish to chart and highlight the row by pressing the left mouse button. Highlight multiple rows by dragging the mouse while holding down the left mouse button.
2. Use the **“Create New Chart”** button located in the mainframe tool bars, or click the right mouse button to display a floating menu, and select the **“Create Chart”** command.
3. Each Switch Expert module contains sample **“Chart Templates”**. These templates are located in the Switch Expert file manager under their respective module folder. To create a new chart via a template, highlight the rows to chart, and then double click on a desired module chart template. If you are charting trunk traffic, use the chart templates located under the **“Trunk Traffic”** folder, sub-folder **“Chart Templates”**. To apply a template to an existing chart, activate the chart by clicking on the chart or chart frame, double click on the template, or drag and drop the template on to the chart.

Note: If charts do not appear correctly on the screen, try adjusting your monitor’s resolution to a higher setting, i.e., for a 17” monitor, try the display settings of 1024 x 768 pixels. Change the setting via the Windows **“Control panel”**, **“Display”**, and then select the **“Settings”** tab.

- To set the application chart defaults, press the **“Application chart defaults”** button located to the right of the **“? About”** button in the mainframe. Select the options for the desired backdrops, frames and fonts of new charts created with the **Create Chart** command. Use the **File** menu **Save Settings** command to retain these settings between Switch Expert sessions.
6. Switch Expert can combine data from two or more groups into one. To accomplish this, Switch Expert offers a feature called **Group As One**. A combined group name will always be surrounded by parenthesis. See **“How To Group data rows as One”** in the Switch Expert help files.
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INTRODUCTION TO SWITCH EXPERT(continued):

SERVER AND CLIENT VERSION NOTES

7. The open and close brackets [] may surround the Start Time and Stop Time in a traffic group report. The brackets indicate that data is missing between the start and stop times. To identify the missing data, expand the group by double clicking on the Group Name, use the HR and 00 buttons, sort by start time and then view the individual start and stop times to locate the missing data.
8. If you have any questions, please call Real Time Monitors at 310-796-6277. Your feedback is appreciated and assists in future product improvements.

Customer Service and Technical Support:

Help-line service is currently available to all customers enrolled in a maintenance/support program.

Technical support is provided only to registered users of Switch Expert. When requesting support a user must provide the product serial number. The serial can be found in the products About Box.

All customers that purchase a new product receive one-year maintenance support. The support period commences when the product is received. The maintenance support includes:

- Telephone support is available at the help line number 310-796-6277.
 - Email. Only basic questions are handled through this forum. The email address is Support@rtmi.com. More complex questions require telephone support.
 - Case Resolution. An action plan for all calls that generate an open case is developed within 48 hours. The status of an open case is communicated at least once a week.
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Switch Expert

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