iSecurity

Installation Guide

Updated: November 3, 2016

RAZ-LEE™

The iSeries Security Experts

Table of Contents

Copyright Notice

Visit our web site at www.razlee.com.

About This Manual

Who Should Read This Manual

This manual is intended for system administrators and security administrators responsible for the implementation and management of security on System i systems.

Terminology

This manual attempts to adhere to standard IBM System i (AS/400) terminology and conventions whenever possible. However, deviations from IBM standards are employed in certain circumstances in order to enhance clarity or when standard IBM terminology conflicts with generally accepted industry conventions.

Documentation Overview

Raz-Lee Security takes customer satisfaction seriously. Therefore, our products are designed for ease of use. The documentation package includes a variety of materials to get you up to speed with this software quickly and effectively. We hope you find this user manual informative; your feedback is important to us. Please send your comments about this user manual to docs@razlee.com.

Printed Materials

This user guide is the only printed documentation necessary for understanding this product. It is available in user-friendly PDF format and may be displayed or printed using Adobe Acrobat Reader version 6.0 or higher. If you do not have Acrobat Reader, you can download it from the Adobe website: http://www.adobe.com

This manual contains concise explanations of the various product features as well as step-by-step instructions for using and configuring the product.

Typography Conventions

This document is intended to be printed by the end user and viewed on-line using a variety of different PC platforms. Accordingly, it was written using standard Windows TrueType fonts that are installed on virtually all systems. You do not need to install any special fonts in order to view or print this document.

- Body text appears in 11-point Times New Roman.
- Menu options, field names, and function key names appear in ***Arial Bold***.

- IBM i (OS/400) commands, system values, data strings, and so on appear in ***Bold Italic.***
- Key combinations are separated by a dash, for example: **Shift-Tab**.
- Referrals to chapters or procedures appear in *Times New Roman Italic*.

iSecurity Product Suite

Raz-Lee's iSecurity is an integrated, state-of-the-art security solution for all System i servers, providing cutting-edge tools for managing all aspects of network access, data, and audit security. Its individual components work together transparently, providing comprehensive out-of-the-box security.

The iSecurity Product Suite includes:

Product	Description
Action 	Action intercepts security breaches and other events in real-time and immediately takes appropriate corrective action. Actions may include sending alert messages to key personnel and/or running command scripts or programs that take corrective steps. No effective security policy is complete without Action
Anti-Virus 	Anti-Virus is a dedicated IBM System i (AS/400)-specific product engineered to provide full protection to the server, its file contents, and resident IBM System i (AS/400) or System i dedicated software.

Product	Description
AP-Journal	AP-Journal automatically manages database changes by documenting and reporting exceptions made to the database journal.
Assessment	Assessment checks your ports, sign-on attributes, user privileges, passwords, terminals, and more. Results are instantly provided, with a score of your current network security status with its present policy compared to the network if iSecurity were in place.
Audit	Audit is a security auditing solution that monitors System i events in real-time. It includes a powerful query generator plus a large number of predefined reports. Audit can also trigger customized responses to security threats by means of the integrated script processor contained in Action.
Authority On Demand	Authority on Demand provides an advanced solution for emergency access to critical application data and processes, which is one of the most common security slips in System i (IBM i) audits. Current manual approaches to such situations are not only error-prone, but do not comply with regulations and often-stringent auditor security requirements.

Product	Description
Capture	Capture silently captures and documents user screens for tracking and monitoring, without any effects on system performance. It also preserves job logs for subsequent review. Capture can run in playback mode and can be used to search within texts.
Change Tracker	Change Tracker automatically tracks modifications in the software and file structure within production libraries. Changes are tracked at both the object and source levels. It does not require any special actions by programmers.
COMMAND	COMMAND monitors and filters commands and its parameters before they are run, enabling you to control each parameter, qualifier or element, in conjunction with the context in which it is about to run. Options include Allow, Allow with Changes and Reject. It includes a comprehensive log, proactive alerting and easily integrates with SIEM.
DB-Gate	**Direct IBM i Client-only Access to Non-DB2 Databases** DB-Gate empowers IBM i customers with exciting data access capabilities, based on Open Database Connectivity (ODBC), employing standard OS/400 facilities to enable fully database-transparent access to remote systems.

Product	Description
Firewall	Firewall protects and secures all types of access, to and from the System i, within or outside the organization, under all types of communication protocols. Firewall manages user profile status, secures entry via pre-defined entry points, and profiles activity by time. Its Best Fit algorithm determines the validity of any security-related action, hence significantly decreasing system burden while not compromising security.
Password	Password provides a first-tier wall of defense for users by ensuring that user passwords cannot be easily cracked.
Screen	Screen protects unattended terminals and PC workstations from unauthorized use. It provides adjustable, terminal- and user-specific timeout capabilities.

Product	Description
View	View is a unique, patent-pending, field-level solution that hides sensitive fields and records from restricted users. This innovative solution hides credit card numbers, customer names, etc. Restricted users see asterisks or zeros instead of real values. View requires no change in existing applications. It works for both SQL and traditional I/O.
Visualizer	Visualizer is an advanced DWH statistical tool with state-of-the-art technology. This solution provides security-related data analysis in GUI and operates on summarized files; hence, it gives immediate answers regardless of the amount of security data being accumulated.

iSecurity Products Installation/Upgrade

Overview

All **iSecurity** products are available for downloading directly from the Raz-Lee website at www.razlee.com.

These instructions are applicable for one or any combination of **iSecurity** products, and are relevant for the following versions:

iSecurity Part/Version	Products Included
iSecurity Part 1 Version 17.00 and later	**Firewall**, **Command**, **Password**, **Screen**
iSecurity Part 2 Version 12.00 and later	**Action, Audit, Central Admin**
iSecurity Part 4 Version 8.00 and later	**AP-Journal** **NOTE:** The **AP-Journal** product can be installed only if your operating system is V5R2 or later.
iSecurity Part 5 Version 6.00 and later	**Anti-Virus** **NOTE:** The **Anti-Virus** product can be installed only if your operating system is V5R4 or later. In addition, only a security administrator with auditing privileges should work with **Anti-Virus**.
iSecurity Part 6 Version 17.00 and later	**FileScope**
iSecurity Part 7 Version 3.00 and later	**Capture**
iSecurity Part 8 Version 4.00 and later	**Authority on Demand**

The installation/upgrade consists of the following stages:

- Preparation:
- Installing/Upgrading:
- Post Processing:

Within each section, you will find a distinction made between actions for every installation, actions for the first time installation only, and actions for upgrade installations only.

iSecurity Jobs and Subsystems

System-supplied IBM i subsystems are used to control jobs and functions. iSecurity autostart jobs perform one-time initialization or do repetitive work that is associated with a particular subsystem. The autostart jobs associated with a particular subsystem are automatically started each time the subsystem is started.

Following is a table of the relevant iSecurity jobs per iSecurity product subsystem:

System	Function
ZAUDIT – Audit Subsystem	**AUACTION** – Action from Audit **AUACTJOBOP** – Action from SystemControl+Active Jobs **AUFWACTION** – Action from Firewall **AURPLRQST** – Replication Requests **AURPLRSPN** – Replication Response **AUSCDAUDOP** – Schedule Audit Option **AUSYSLOG1** – Syslog/SIEM **CTREALTIME** – Change Tracker **RAZLEE1** – Realtime Audit log
ZAUTH – Authority on Demand	**ODMONITOR** – Authority on Demand Monitor **PRMONITOR** – Password Reset Monitor
ZCAPTURE - Capture	**AUCAP#MON** – Capture Monitor **AUCAP#QSH** – Capture QSH activity **AUCAP#SR1** – Capture Service Provider 1 **AUCAP#SR2** – Capture Service Provider 2 **AUCAP#SR3** – Capture Service Provider 3 **AUCAP#SR4** – Capture Service Provider 4 **QJSCCPY** – Capture Copy Screen job
ZDBGATE – DB-Gate	**DBMONITOR** – DB-Gate Monitor **DP05142959** – DB-Gate Connection job
ZENCRPT - Encryption	**EN#LOG** – Encryption log job **ENREALTIME** – Encryption realtime job
ZFIREWALL - Firewall	**GS#FIRELOG** – Firewall asynchronous log job GS#FIREWAL – Interactive Signon monitor job **GSSYSLOG1** – Firewall Syslog job

System	Function
ZJOURNAL – AP-Journal	**DEMO1** – AP-Journal Realtime job Application Demo1 **DEMR3** – AP-Journal Realtime job Application Demo3 **RLF01** – AP-Journal Realtime job Application RLF01 **RLG02** – AP-Journal Realtime job Application RLG02

Preparation

Before you can install/upgrade your products, you must prepare both the computer and the environment for the process.

Prerequisites

Time Required

You must ensure that you schedule sufficient time to perform the installation/ upgrade. While the process is running, the specific iSecurity product you are working with is unavailable. A first time installation will take up to 15 minutes for each product you install. An upgrade installation will take up to 90 minutes for each product you upgrade, not including additional jobs that will run at the end of upgrade job ends, such as convert objects job (CVTSMZ4 job).

Special Considerations

Before you start the install/upgrade of **Firewall**, you should take into consideration that the recommended method is to perform an IPL after the activation of the servers. If you only perform IPL on a planned basis, you may want to consider delaying the installation/upgrade until immediately before the planned IPL.

In very extreme circumstances, there may be a need to perform an unscheduled IPL after installing/upgrading **Anti-Virus** or **Firewall**.

System Requirements

The system requirements for each product are detailed in the table below.

Product	Operating System	Disk Requirements
Action	V5R2 and later	Included in the **Audit** library
Anti-Virus	V5R4 and later	220 MB
AP-Journal	V5R2 and later	60 MB
Audit	V5R2 and later	180 MB
Authority On Demand	V5R2 and later	50 MB
Capture	V5R2 and later	50 MB
Change Tracker	V5R2 and later	42 MB
Command	V5R2 and later	Included in the **Firewall** library
DB-Gate	V5R2 and later	110 MB
Firewall	V5R2 and later	80 MB
Password	V5R2 and later	Included in the **Firewall** library
Screen	V5R2 and later	Included in the **Firewall** library

Product Interdependencies

The table below shows which additional products are mandatory for each product. If you have not purchased these products, they will be provided to you at no cost and without a need for licensing, but you will be unable to access them. You must ensure that additional products are all in the latest version. For example, if you upgrade **Action**, you must also upgrade **Audit**.

Product	Required Products
Action	**Audit**
Anti-Virus	No interdependencies
AP-Journal	No interdependencies
Audit	No interdependencies
Authority on Demand	**Audit** - if you will be working with SYSLOG. **Audit**, **AP-Journal** and **Capture** - if you will be working with extended logging.

Product	Required Products
Capture	No interdependencies
Change Tracker	**Audit**
Command	**Audit**, **Firewall**
DB-Gate	No interdependencies
Encryption	**Audit**
Firewall	**Audit**
Password	**Audit**
Password Reset	**Audit**, **Authority on Demand**
Screen	**Audit**

User Profile Requirements

To install iSecurity you must use a user profile that has Security Officer (***SECOFR**) authority, and especially the special authorities listed below:

Authority	Why it is needed
***ALLOBJ**	All object special authority is for users who need to work with system resources. In iSecurity, it is to enable the setting of file journals, access journals and so on.
***AUDIT**	Audit special authority to users who need to perform auditing functions. In iSecurity, it is to set the auditing attribute of the loaded product. For **Audit** - to be able to set related system values.
***IOSYSCFG**	Input/output system configuration special authority to users who need to change system I/O configurations. In iSecurity, it is to help with **DB-Gate** (transparent bridge to Oracle, MS-SQL via standard SQL).
***JOBCTL**	Job control special authority is given to the user. The user is given the authority to change, display, hold, release, cancel, and clear all jobs that are running on the system or that are on a job queue or output queue that has OPRCTL (*YES) specified. The user also has the authority to load the system, to start writers, and to stop active subsystems. In iSecurity, it is to add JOB Schedule Entries.

Authority	Why it is needed
*SAVSYS	Save system special authority to users who need to operate the system. In iSecurity, it is to backup and restore including when Export/Import of definitions.
*SECADM	Security administrator special authority to users who need to create, change, or delete user profiles. In iSecurity, it is to create a user profile who is the owner of the product.
*SERVICE	Service special authority to users who need to perform service functions. In iSecurity, it is to trace jobs if and where there are problems.
*SPLCTL	Spool control special authority to users who need to perform all spool-related functions. In iSecurity, it is to be able to handle spool files when created within another "internal" job after a user swap.

Interaction With Non Raz-Lee Products

If Maxava for HA is installed on the computer, rename the Maxava CRTSAVF command.

Create a New User

New customers should fill in the New User form in URL:
http://www.razlee.com/downloads/create_new_user.php

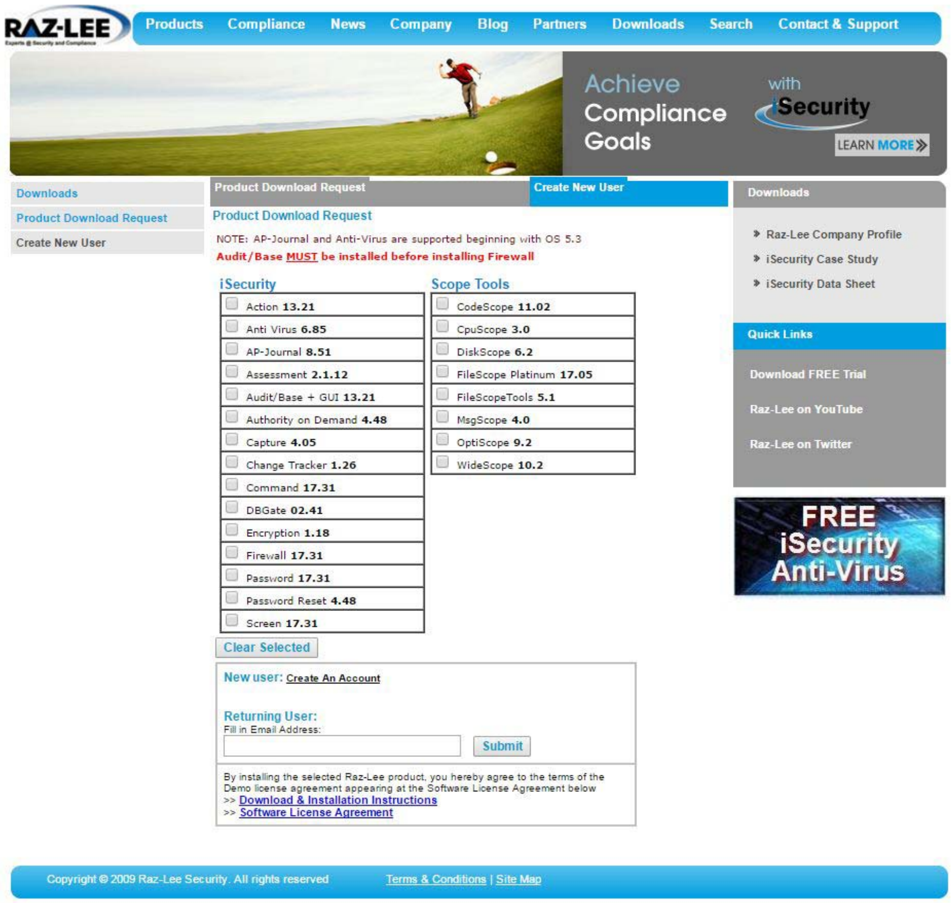
NOTE: *New customers should be instructed to type a Referral's Name field so the request can be assigned to you.*

NOTE: *To receive a Referral Name, please contact* webmaster@razlee.com

Download Request

After creating a new user when necessary, the customer should select products to download at URL:

http://www.razlee.com/downloads/product_download_request.php



Product Download Request

NOTE: AP-Journal and Anti-Virus are supported beginning with OS 5.3

Audit/Base MUST be installed before installing Firewall

iSecurity

- ☐ Action **13.21**
- ☐ Anti Virus **6.85**
- ☐ AP-Journal **8.51**
- ☐ Assessment **2.1.12**
- ☐ Audit/Base + GUI **13.21**
- ☐ Authority on Demand **4.48**
- ☐ Capture **4.05**
- ☐ Change Tracker **1.26**
- ☐ Command **17.31**
- ☐ DBGate **02.41**
- ☐ Encryption **1.18**
- ☐ Firewall **17.31**
- ☐ Password **17.31**
- ☐ Password Reset **4.48**
- ☐ Screen **17.31**

Scope Tools

- ☐ CodeScope **11.02**
- ☐ CpuScope **3.0**
- ☐ DiskScope **6.2**
- ☐ FileScope Platinum **17.05**
- ☐ FileScopeTools **5.1**
- ☐ MsgScope **4.0**
- ☐ OptiScope **9.2**
- ☐ WideScope **10.2**

Clear Selected

New user: Create An Account

Returning User:
Fill in Email Address: ______ Submit

By installing the selected Raz-Lee product, you hereby agree to the terms of the Demo license agreement appearing at the Software License Agreement below
>> Download & Installation Instructions
>> Software License Agreement

Copyright © 2009 Raz-Lee Security. All rights reserved   Terms & Conditions | Site Map

Request Form

Your request to download products must be approved by your distributor or by Raz-Lee.

Upon approval, you will receive an email with a link to a download page (valid for 7 days) that contains the software, appropriate documentation and installation instructions.

Distributor: To view the customer's information, the requested products, and to approve/ decline the request, login at URL: http://www.razlee.com/distributors/partners_login.php

Upgrade or Install

If you are performing a first time installation, you should verify that it is indeed a first time installation and not an upgrade.

To verify a first time installation:

1. Enter the following command:
   ```
   wrklib lib(smz*)
   ```
2. Check for the existence of the libraries shown for the product you are installing in the table in Backup on page 24.

   If the libraries exist, you will be performing an upgrade.

Verify Link

Before you continue with the rest of the process, verify the link you received from Raz-Lee.

De-activation

You must de-activate each product you wish to upgrade. Before starting the de-activation, ensure that no jobs that could be adversely affected are running.

NOTE: If you are upgrading any of the following products, you must also de-activate **Audit**: **Action**, **AOD**, **Change Tracker**, **Command**, **Firewall**, **Password**, **Password Reset**, and **Screen**.

Deactivating Authority on Demand

In Audit:

1. Before upgrading AOD, deactivate Audit via **STRAUD > 2 > 2.**
2. Since Audit’s realtime-detection job locks certain files, the upgrade of AOD can fail because of an object lock. Therefore, before upgrading AOD, check for object locks in SMZO and SMZODTA *LIB.
3. After upgrading AOD, activate Audit via **STRAUD > 2 > 1**.

In AOD:

1. Enter ***STRAOD*** from the command line to start **Authority on Demand**.
2. Select **11. Activation** from the **Authority on Demand** main screen. The **Activation** menu appears.
3. Select **5. Work with Active Jobs** from the **Activation** menu to check if the subsystem **ZAUTH** is active.
4. If it is active, press **F3** and then de-activate the product by selecting **2. De-activate Authority on Demand Now** from the **Activation** screen.

Deactivating Firewall

1. Enter ***STRFW*** into the command line to start **Firewall**.
2. Select **81. System Configuration** in the main **Firewall** menu. The **iSecurity (part I) Global Parameters** menu appears.
3. Select **1. General definitions** in the **iSecurity (part I) Global Parameters** menu. The **Firewall General Definitions** screen appears.
4. Check the **Enable Super Speed Processing** flag.
    - If **Enable Super Speed Processing = ‘Y’**, set the flag to **‘N’**, perform an IPL and continue with this procedure.

■If **Enable Super Speed Processing = 'N'**, continue with this procedure.

5. Press **F3** to return to the main menu.
6. Select **1. Activation and Server Setting** in the main Firewall menu. The **Activation and Server Setting** menu appears.
7. Select **21. Suspend Activity (before upgrade)** in the **Activation and Server Setting** menu. The **Set Firewall Security** screen appears.

   Set the **Restart servers in *INT job** to ***NO**.

   If you intend to send this command as a batch job, then you should set the **Restart servers in *BCH job** to ***NO**.

   After pressing E**nter**, the system will work for a couple of minutes, and will display a message similar to this "Firewall suspended at 01.01.01 10:10:10. Use *RESUME to re-activate".
8. Select **1. Work with Servers**. The secure level of all the servers should be set to **NO**.
9. Press **Enter**. A message will appear telling you that "Subsytem **ZFIREWALL** is Not Active". **Firewall** is now de-activated; access to the computer is not being controlled.

Deactivating Screen

1. Enter ***STRSCN*** from the command line to start **Screen**.
2. Select **41. Activation** in the **Screen** main menu. The **Activation** menu appears.
3. Select **5. Work With Active Monitor Jobs** to check if the subsystem **ZGUARD** is active.
4. If it is active, press **F3** and then de-activate product by selecting **2. De-activate Screen Now** in the **Activation** menu.

Deactivating Password

NOTE: You can skip this procedure if Firewall has already been deactivated.

1. Enter ***STRPWD*** from the command line to start **Password**.
2. Select **1. Activate CHGPWD Validation** in the **Password** main menu. The **Modify Server Security** screen appears.
3. Type **2** in the **Enable validity checking** field and press **Enter**. Do not change any other parameters.

Deactivating Audit/Action

1. Enter ***STRAUD*** from the command line to start **Audit**.
2. To deactivate both **Audit** and **Action** simultaneously, select **2. Activation** from the **Audit** main menu. The **Activation** menu appears.
3. Select **5. Work With Active Jobs** in the **Activation** menu to check if the subsystem **ZAUDIT** is active
4. If it is active, press **F3** and then de-activate product by selecting **2. De-activate ZAUDIT subsystem** in the **Activation** menu.

NOTE: All functions that use the ZAUDIT subsystem will also be deactivated. To check which functions are affected, select **5. Auto start activities in ZAUDIT** in the Configuration menu.

Deactivating Capture

1. Enter ***STRCPT*** from the command line to start **Capture**.
2. Select **11. Activation** in the **Capture** main screen.
3. Select **5. Work With Active Monitor Jobs** to check if the subsystem **ZCAPTURE** is active.
4. If it is active, de-activate the product by selecting **2. De-activate Capture Now** in the **Activation** screen.

Deactivating Anti-Virus

1. Enter ***STRAV*** from the command line to start **Anti-Virus**.
2. Select **11. IFS Viruses, Worms and Trojans** in the **Anti-Virus** main menu The menu **IFS Viruses, Worms and Trojans** appears.
3. Select **1. Activation** in the **IFS Viruses, Worms and Trojans** menu. The **Activation** menu appears.
4. Select **5. Work with Active Jobs** from the **Activation** menu to check if the subsystem **ZANTIVIRUS** is active.
5. If it is active, de-activate the product by selecting **2. De-activate Real-Time Detection** in the **Activation** menu.

Deactivating AP-Journal

1. Enter ***STRJR*** from the command line to start **AP-Journal**.
2. Select **11. Applications, BizAlerts** from the **AP-Journal** main menu. The **Applications, BizAlerts - Definitions** menu appear.
3. Select **11. Activation** from the **Applications, BizAlerts - Definitions** menu. The **Collection to Containers** menu appears.
4. Select **5. Work with Active Jobs** from the **Collection to Containers** menu to check if the subsystem **ZJOURNAL** is active.
5. If it is active, press **F3** and then de-activate the product by selecting **2. De-activate Real-Time Journal Collection (all applications)** from the **Collection to Containers** menu.

Deactivating Encryption

1. Enter ***STRENC*** from the command line to start **Encryption**.
2. Select **51. Activation** in the **Encryption** main screen.
3. Select **5. Work With Active Monitor Jobs** to check if the subsystem **ZENCRPT** is active.
4. If it is active, de-activate the product by selecting **2. De-activate ZENCRPT subsystem** in the **Activation** screen.

Deactivating FileScope

Change the names of the `CHGFC` and `SHWFC` commands in QGPL to ensure that nobody works with **FileScope** during the upgrade.

Data Area Preparation

To better control various aspects of the installation/upgrade process, you can create a data area of 256 bytes in length called ISECCMDLIB in the QGPL library. The data area should contain the following fields:

From	To	Bytes	Field Text	Default	Description
1	10	10	QGPL Alternative Name	QGPL	Where to copy the STR*, RUN* and *INIT commands, so that every user will find them
11	12	2	ASP	01	•Products being installed for the first time will be installed to this ASP. This refers to the product library and data library (for example, SMZ4, SMZ4DTA) •In some products such as AP-Journal, other libraries are created. For example, in the AP-Journal a library is created per application. When created you are prompted with the CRTLIB (Create Library) so that you can set the ASP number. •Change the current ASP of the library. All future upgrades will use this ASP. •All products will try to preserve the current ASP at upgrade time. Due to its sensitivity, you should check it.
13	13	1	Expire Message FRQ*	Not Used	

From	To	Bytes	Field Text	Default	Description
14	14	1	Wait For STROBJCVN	Y	If you are installed the product on an OS400 version which is not the one that it was created for, objects require conversion and this is normally done in a batch job sent to work parallel to the installation. If you want the conversion to run inline, (wait until it ends), this field should be set to Y.
15	20	6	Filler		
21	30	10	Subsytem name for Start at IPL	QSYSWRK	
31	40	10	Subsystem library for Start at IPL	*LIBL	
41	45	5	UDP source port for Audit/Firewall		The port number should be a valid integer, be greater than 1024 and less than 65535.

NOTE: It is the Customer’s responsibility to populate the Data Area.

You can also update the Data Area directly from **Audit**:

1. Enter ***STRAUD*** from the command line to start **Audit**.
2. Select **82. Maintenance Menu** in the Audit main menu.
3. Select **91. Global Installation Defaults** from the Maintenance Menu.

For more details, see the appropriate section in the Audit manual.

Upgrade Considerations

If you are upgrading from a very old version, you may not be able to upgrade directly to the latest version. You will have to upgrade to a later version (the prerequisite version) than your version and then immediately perform a second upgrade to the latest version. You should also make sure that you allocate enough time to do this double upgrade, including a full backup before each upgrade. See the table below for details of products and versions. To obtain the prerequisite version, contact Raz-Lee support staff at support@razlee.com.

Backup

If you are upgrading your iSecurity products, you should backup your iSecurity libraries before starting the upgrade process. Backup each product separately, as shown in the following table:

Product	Libraries
Action	SMZ4 SMZ4DTA
Anti-Virus	SMZV SMZVDTA
AP-Journal	SMZJ SMZJDTA SMZJcmbol SMZJYYMMDD SMZJxxxxx
Audit	SMZ4 SMZ4DTA ISECURITY
Authority on Demand	SMZO SMZODTA
Capture	SMZC SMZCDTA
Change Tracker	SMZT SMZTDTA
Command	SMZ8 SMZTMPA SMZTMPB SMZTMPC

Product	Libraries
DB-Gate	SMZB SMZBDTA
Encryption	SMZE SMZEDTA
Firewall	SMZ8 SMZTMPA SMZTMPB SMZTMPC
Password	SMZ8 SMZTMPA SMZTMPB SMZTMPC
Password Reset	SMZO SMZODTA
Screen	SMZ8 SMZTMPA SMZTMPB SMZTMPC

Check Object Locks

As stated previously, while the process is running, the specific iSecurity product you are working with is unavailable. To avoid object locks and ensure that nobody is working with the products you want to upgrade, do one of the following for the libraries shown in the table above:

1. In the command line, enter the command `SMZ4/CHKSECLCK` *`LibraryName`*, where *`LibraryName`* is the name of the library to be checked. You do not need to check the data libraries SMZxDTA, as the command does this for you.
2. In the command line, enter the command `WRKOBJLCK OBJ(`*`LibraryName`*`), OBJTYPE(*LIB)`, where *`LibraryName`* is the name of the library to be checked.

If the return results that show that the library to be upgraded is locked, you must ensure that all work with the library stops before continuing with the upgrade.

Installing/Upgrading

Before you start the process, ensure that you have carried out all the necessary preparation as described in Preparation on page 12.

Important notes:

- Although you can install/upgrade the products in any order you choose, you must install/upgrade **Audit** first.
- The link in the email is VALID ONLY for SEVEN days; afterwards you will not be able to download the software using the link.
- To use extended logging capability in **Authority On Demand**, you may need installation and licensing for other iSecurity products such as **Capture**, **Audit**, and **AP-Journal**.

Audit Installing/Upgrading

When upgrading Audit 13.22 and above, the Firewall subsystem `ZFIREWALL` needs to be deactivated.

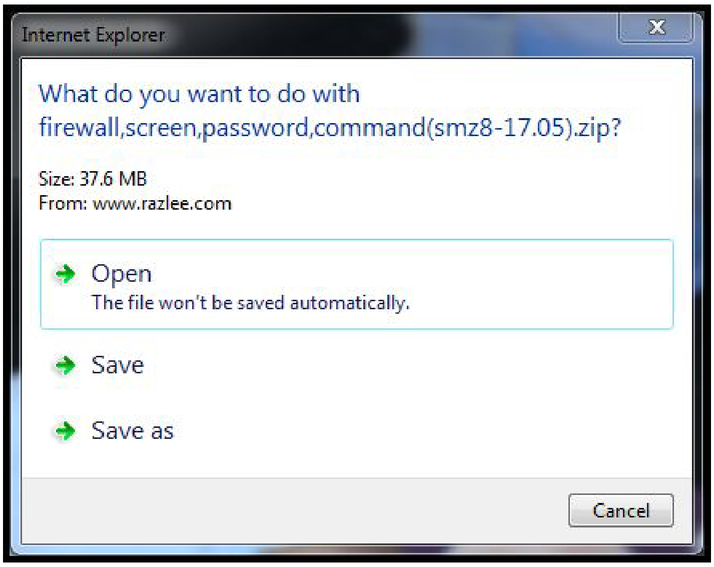
The normal Firewall write-to-log process uses a data queue. If the Firewall data queue fills up during the `ZFIREWALL` subsystem deactivation period, a fall-back program will be activated which will write log records directly into the Firewall log file. This will prevent potential loss of data due to Firewall subsystem deactivation. If the fall-back program is activated, Firewall may have performance issues until the subsystem is reactivated.

Begin the Audit upgrade process by checking if there are any locks on the Audit program library `SMZ4`; to check, enter `WRKOBJLCK SMZ4 *LIB` or `SMZ4/CHKSECLCK SMZ4`. When locks appear which begin with **GS*** (signifying Firewall), do the following:

1. Deactivate the Firewall subsystem `ZFIREWALL` using **STRFW > 1 > 52**.
2. Upgrade Audit.
3. If you intended to upgrade Firewall, do so now.
4. In all cases, activate the Firewall subsystem `ZFIREWALL` using **STRFW > 1 > 51**.
5. If other iSecurity products have been upgraded, activate them now.
6. Activate Audit using **STRAUD > 2 > 1**.

Installing Products Separately

1. Create a temporary directory on your local computer.
2. Click the link in the email you received from Raz-Lee. The **Products Download Page** appears. Do not close it until you have finished installing all products.
3. Click on the product to install, the **File Download** dialog box appears.



Internet Explorer

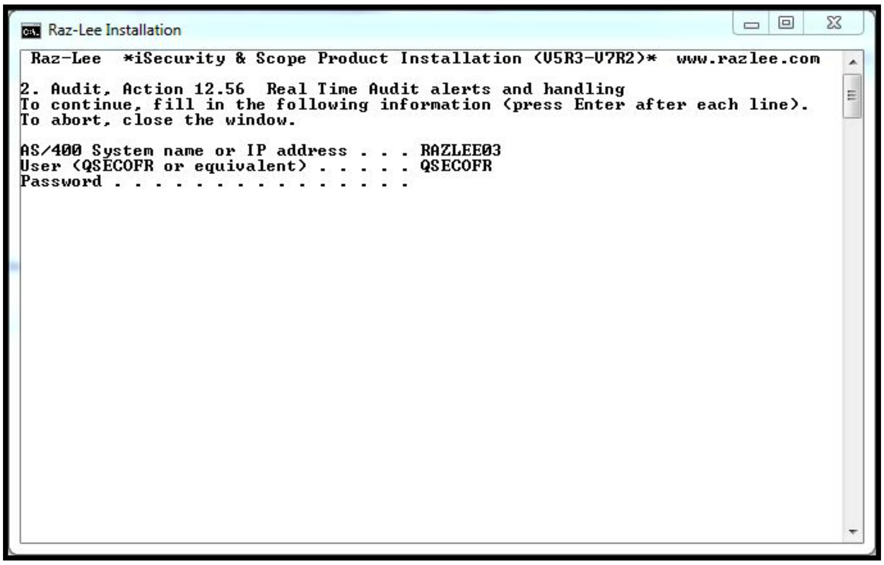
What do you want to do with firewall,screen,password,command(smz8-17.05).zip?

Size: 37.6 MB
From: www.razlee.com

File Download Dialog

NOTE: This dialog box will differ in appearance according to your operating system and browser.

4. Save the zip file to the directory you created in step 1 on page 27 and extract it.
5. Open the extracted directory and run **SETUP**. The **Raz-Lee Installation** dialog box appears.



```
 Raz-Lee   *iSecurity & Scope Product Installation (V5R3-V7R2)*  www.razlee.com

2. Audit, Action 12.56  Real Time Audit alerts and handling
To continue, fill in the following information (press Enter after each line).
To abort, close the window.

AS/400 System name or IP address . . . RAZLEE03
User (QSECOFR or equivalent) . . . . . QSECOFR
Password . . . . . . . . . . . . . . .
```

Install Dialog Box

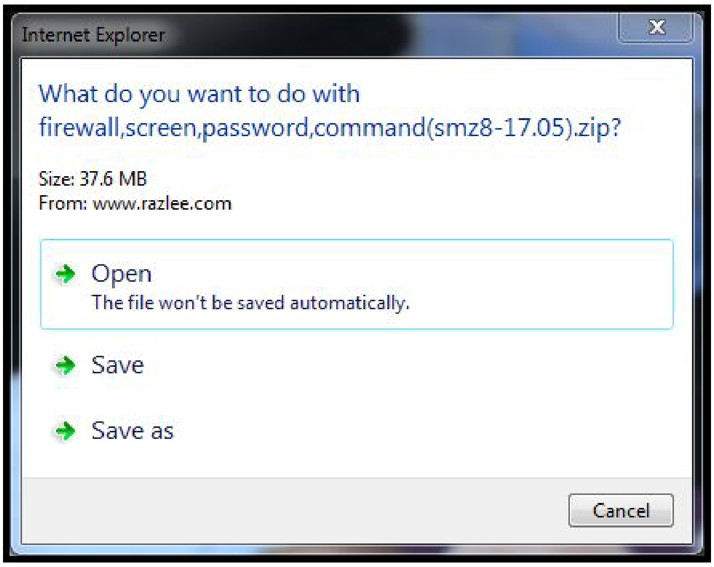
6. Enter either the host system name or IP address, a user name with Security Officer (***SECOFR**) authority, a password for this user, and press **Enter**. The installation process runs.

NOTE: A first time installation will take up to 15 minutes for each product you install. An upgrade installation will take up to 60 minutes for each product you upgrade.

7. Upon completion of the installation routine, close the **Raz-Lee Installation** dialog box.
8. To install additional products, delete the contents of the temporary directory, and return to step 3 on page 27.
9. When you have finished installing/upgrading all products, continue with Post Processing on page 35.

Installing All Products Together

1. Request a single install link from Raz-Lee support staff.
2. Click the link in the email you received from Raz-Lee, the **File Download** dialog box appears.



Internet Explorer

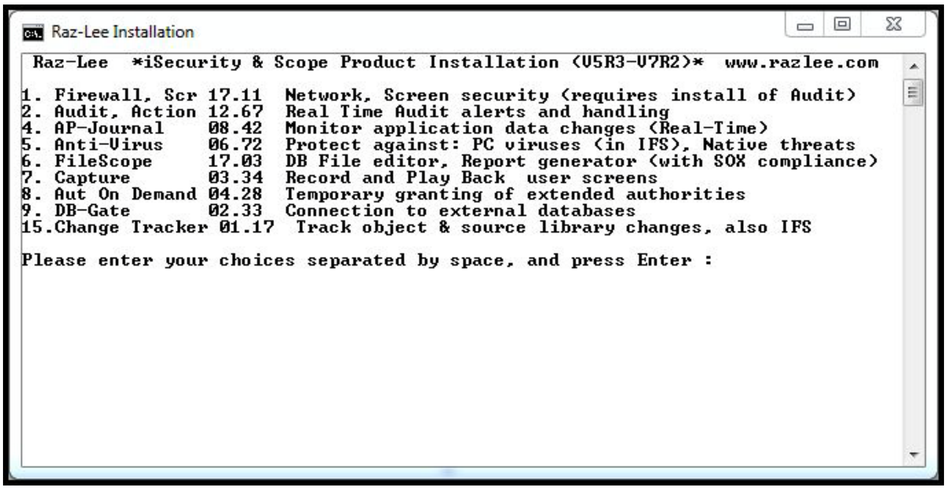
What do you want to do with firewall,screen,password,command(smz8-17.05).zip?

Size: 37.6 MB
From: www.razlee.com

File Download

NOTE: This dialog box will differ in appearance according to your operating system and browser.

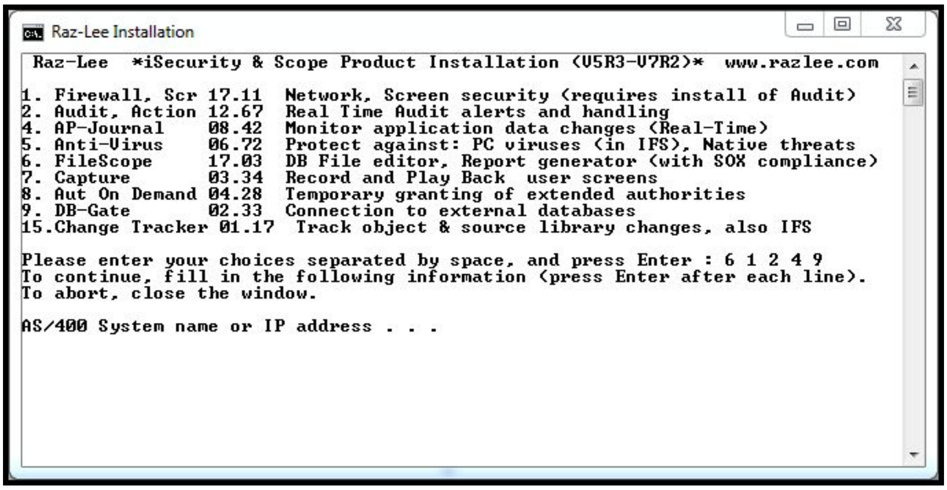
3. Select **Open**. The file will self extract and its folder will open. The file is large, so this process may take some time.
4. Double click on the exe file. The **Raz-Lee Installation** dialog box appears.



```
 Raz-Lee  *iSecurity & Scope Product Installation (V5R3-V7R2)*  www.razlee.com

1. Firewall, Scr 17.11  Network, Screen security (requires install of Audit)
2. Audit, Action 12.67  Real Time Audit alerts and handling
4. AP-Journal    08.42  Monitor application data changes (Real-Time)
5. Anti-Virus    06.72  Protect against: PC viruses (in IFS), Native threats
6. FileScope     17.03  DB File editor, Report generator (with SOX compliance)
7. Capture       03.34  Record and Play Back  user screens
8. Aut On Demand 04.28  Temporary granting of extended authorities
9. DB-Gate       02.33  Connection to external databases
15.Change Tracker 01.17  Track object & source library changes, also IFS

Please enter your choices separated by space, and press Enter :
```

Install Dialog Box

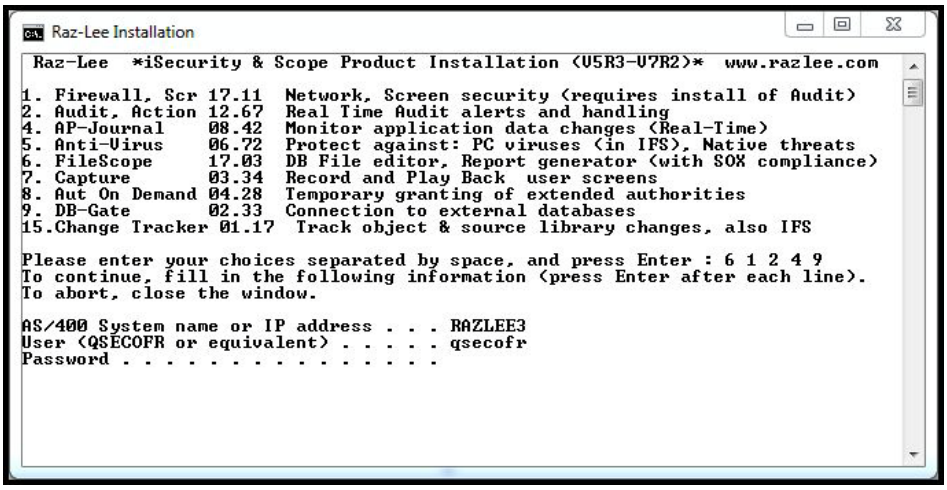
5. Enter the product numbers from the menu (separated by spaces) of the products you wish to install and press **Enter**. The products will be installed in the order you entered them.



```
 Raz-Lee  *iSecurity & Scope Product Installation (V5R3-V7R2)*  www.razlee.com

1. Firewall, Scr 17.11  Network, Screen security (requires install of Audit)
2. Audit, Action 12.67  Real Time Audit alerts and handling
4. AP-Journal    08.42  Monitor application data changes (Real-Time)
5. Anti-Virus    06.72  Protect against: PC viruses (in IFS), Native threats
6. FileScope     17.03  DB File editor, Report generator (with SOX compliance)
7. Capture       03.34  Record and Play Back  user screens
8. Aut On Demand 04.28  Temporary granting of extended authorities
9. DB-Gate       02.33  Connection to external databases
15.Change Tracker 01.17  Track object & source library changes, also IFS

Please enter your choices separated by space, and press Enter : 6 1 2 4 9
To continue, fill in the following information (press Enter after each line).
To abort, close the window.

AS/400 System name or IP address . . .
```

Install Dialog Box

6. Enter either the host system name or IP address, and press **Enter**.



```
 Raz-Lee  *iSecurity & Scope Product Installation (V5R3-V7R2)*  www.razlee.com

1. Firewall, Scr 17.11  Network, Screen security (requires install of Audit)
2. Audit, Action 12.67  Real Time Audit alerts and handling
4. AP-Journal     08.42  Monitor application data changes (Real-Time)
5. Anti-Virus     06.72  Protect against: PC viruses (in IFS), Native threats
6. FileScope      17.03  DB File editor, Report generator (with SOX compliance)
7. Capture        03.34  Record and Play Back  user screens
8. Aut On Demand 04.28  Temporary granting of extended authorities
9. DB-Gate        02.33  Connection to external databases
15.Change Tracker 01.17  Track object & source library changes, also IFS

Please enter your choices separated by space, and press Enter : 6 1 2 4 9
To continue, fill in the following information (press Enter after each line).
To abort, close the window.

AS/400 System name or IP address . . . RAZLEE3
User (QSECOFR or equivalent) . . . . . qsecofr
Password . . . . . . . . . . . . . . .
```

Install Dialog Box

7. Enter a user name with Security Officer (***SECOFR**) authority, a password for this user, and press **Enter**. The installation process runs, installing all products in the sequence you selected.

NOTE: A first time installation will take up to 15 minutes for each product you install. An upgrade installation will take up to 60 minutes for each product you upgrade.

NOTE: If a specific product fails to install, the process continues with the next selected product and a log appears.

8. Upon completion of the installation process, close the The **Raz-Lee Installation** dialog box and continue with Post Processing on page 35.

Interactive (Manual) Installation

Support may ask you to do an interactive (manual) installation

1. Double click on the installation link you received from support.
2. Click the Windows Start button and enter `cmd`.
3. In the Windows Command Window, type the following:
   a. `cd %TMP%`
   b. `dir 7ZipSfx.*`
      The file with the largest number in file type (replaces *nnn* in the command below), is the directory of the planned installation.
   c. `cd 7ZipSfx.nnn`
   The file ending with .A2P is the *SAVF of the product.
4. In the System i, enter the following commands:
   a. `CRTSAVF QGPL/`*`ProductLibrary`*
      where *`ProductLibrary`* is the Product library in the first table below.
   b. Transfer the .A2P file into the *SAVF
   c. `ADDLIBLE QGPL *FIRST`
   d. `RSTOBJ OBJ(`*`ProductObject`*`) SAVLIB(`*`ProductLibrary`*`) DEV(*SAVF) SAVF(QGPL/`*`ProductLibrary`*`) MBROPT(*ALL) ALWOBJDIF(*ALL) RSTLIB(QTEMP)`
      where *`ProductLibrary`* is the Product library in the first table below and where *`ProductObject`* is the three character Product object in the second table below.
   e. `CALL QTEMP/`*`ProductObject`*` *SAVF`
      where *`ProductObject`* is the three character Product object in the second table below.

Product	Library
Anti-Virus	*SMZV*
AP-Journal	*SMZJ*
Audit, Action, Central Admin.	*SMZ4*
Authority on Demand	*SMZO*
Capture	*SMZC*

Product	Library
CodeScope	*SMZ6*
CpuScope	*SMZ3*
DiskScope	*SMZD*
Encryption	*SMZE*
FileScope	*SMZ1*
FileScope Tools	*SMZ2*
Firewall, Screen, Password	*SMZ8*
MsgScope	*SMZM*
OptiScope	*SMZ9*
View	*SMZ5*
WideScope	*SMZ7*

Product	Object
Anti-Virus	*AVI*
AP-Journal	*JRI*
Audit, Action, Central Admin.	*AUI*
Authority on Demand	*ODI*
Capture	*CAI*
CodeScope	*CSI*
CpuScope	*CPI*
DiskScope	*DSI*
Encryption	*ENC*
FileScope	*FSI*
FileScope Tools	*TLI*
Firewall, Screen, Password	*GSI*
MsgScope	*MGI*
OptiScope	*OSI*
View	*VWI*
WideScope	*WSI*

Audit/Firewall Manual Installation

In order to perform manual installation, first extract the AS400 installation file (SAVF) from the PC installation file (zipped).

PC side:

1. Run the installation file, and double-click the link or zipped file.
   A DOS session opens. Keep it open, and do not type anything.
2. Go to `%TMP%`.
3. Find the `7ZipSfx.nnn` folder.
4. Copy the product `XXnnnnV72.A2P` file to a folder on your PC.

AS400:

Audit 13.21

1. `CRTLIB RAZLEE`
2. `CRTSAVF RAZLEE/SMZ4`
3. FTP and upload (bin mode) the `AU1321V72.A2P` into `RAZLEE/SMZ4`.
4. `RSTOBJ OBJ(AUI) SAVLIB(SMZ4) DEV(*SAVF) SAVF(RAZLEE/SMZ4) RSTLIB(RAZLEE)`
5. `CALL RAZLEE/AUI ('*SAVF' 'AU' 'RAZLEE' 'SMZ4').`

Note: Use `QSECOFR` or equivalent user profile.

Apply any required PTFs before activating the products; for further information please contact support@razlee.com .

Firewall 17.31

1. `CRTSAVF RAZLEE/SMZ8`
2. FTP and upload (bin mode) the `GS1731V72.A2P` into `RAZLEE/SMZ8`.
3. `RSTOBJ OBJ(GRI) SAVLIB(SMZ8) DEV(*SAVF) SAVF(RAZLEE/SMZ8) RSTLIB(RAZLEE).`
4. `CALL RAZLEE/GRI ('*SAVF' 'GS' 'RAZLEE' 'SMZ8').`
5. `DLTLIB RAZLEE.`

Note: use QSECOFR or equivalent user profile

Note: Do not forget to apply the Audit/Base 13.21 and Firewall 17.31 ptfs before you activate the products. For further information please contact support.

Post Processing

After your installation/upgrade process has completed, perform the following steps to verify that the process was successful, and to setup your new software for working.

Interaction With Non Raz-Lee Products

If Maxava for HA is installed on the computer, rename back the Maxava `CRTSAVF` command that you renamed before starting the installation procedure.

Start and Verify

To verify that your software was correctly installed and to start working, do the following:

1. At the command line, type the appropriate product start command and press **Enter**.

Product	Product Code
Action	*STRACT*
Anti-Virus	*STRAV*
AP-Journal	*STRJR*
Audit	*STRAUD*
Authority on Demand	*STRAOD*
Capture	*STRCPT*
Change Tracker	*STRCT*
Command	*STRCMD*
DB-Gate	*STRDB*
Encryption	*STRENC*
FileScope	*STRFS*
Firewall	*STRFW*
Password	*STRPWD*
Password Reset	*STRPWDRST*
Screen	*STRSCN*

2. Select **81. System Configuration**. The appropriate **System Configuration** menu appears.

3. Verify that the version number of the product was updated.
4. Press **F22**. The **Authorization Code** field opens.
5. Enter the **Authorization Code** for the product and press **Enter**.
6. To ensure the code was inserted correctly, enter the product's log with the appropriate command (shown in the table below) and select **2. By Entry Type**. An error message will be prompted if the code was entered incorrectly.

Product	Display Log Command
Action	*DSPACLOG*
Anti-Virus	*DSPAVLOG*
AP-Journal	*DSPJRLOG*
Audit	*DSPAULOG*
Authority on Demand	*DSPAODLOG*
Capture	*DSPCPTLOG*
Change Tracker	
Command	
DB-Gate	*DSPDBLOG*
Encryption	*DSPENLOG*
FileScope	*DSPFSLOG*
Firewall	*DSPFWLOG*
Password	*DSPPWDLOG*
Screen	*DSPSCNLOG*

Activation

Each product that was de-activated before starting the upgrade process should now be activated.

NOTE: If you upgraded any of the following products, you must also re-activate **Audit**: **Action**, **AOD**, **Change Tracker**, **Command**, **Encryption**, **Firewall**, **Password**, **Password Reset**, and **Screen**.

Activate Firewall

Before you start the activation of **Firewall**, you should decide if you will be performing an IPL during the procedure.

1. Enter ***STRFW*** into the command line to start **Firewall**.
2. Select **1. Activation and Server Setting** in the main Firewall menu. The **Activation and Server Setting** menu appears.
3. Select **22. Resume Activity (after upgrade)** in the **Activation and Server Setting** menu. The **Set Firewall Security** screen appears.
4. If you will be performing an IPL, do the following:
   a. Set the **Restart servers in *INT job** to ***NO**.

      After pressing **Enter**, the system will work for a couple of minutes, and will display a message similar to this: “Firewall operation resumed based on setting of 15/01/15 16:20:15.”

   b. Select **1. Work with Servers**. The Secure column of all the servers that were suspended should be set to **YES** and press **Enter**.
   c. Perform an IPL after ensuring that all users have signed off and all critical jobs have finished.

NOTE: Until you perform the IPL, unexpected errors may occur on the servers marked with an asterisk in the **Work with Servers** screen

5. If you will not be performing an IPL, do the following:
   a. Set the **Restart servers in *INT job** to ***YES**.
   b. If you intend to send this command as a batch job, then you should set the **Restart servers in *BCH job** to ***YES**.

      After pressing **Enter**, the system will work for a couple of minutes, and will display a message similar to this: “Firewall operation resumed based on setting of 15/01/15 16:20:15.”

   c. Select **1. Work with Servers**. The Secure column of all the servers that were suspended should be set to **YES** and press **Enter**.

Activate Screen

1. Enter ***STRSCN*** from the command line to start **Screen**.
2. Select **41. Activation** in the **Screen** main menu. The **Activation** menu appears.
3. Selecting **1. Activate Screen Now** in the **Activation** menu.

Activate Password

NOTE: You can skip this procedure if Firewall has already been deactivated.

1. Enter ***STRPWD*** from the command line to start **Password**.
2. Select **1. Activate CHGPWD Validation** in the **Password** main menu. The **Modify Server Security** screen appears.
3. Type **1** in the **Enable validity checking** field and press **Enter**. Do not change any other parameters.

Activate Audit/Action

1. Enter ***STRAUD*** from the command line to start **Audit**.
2. To activate both **Audit** and **Action** simultaneously, select **2. Activation** from the **Audit** main menu. The **Activation** menu appears.
3. Select **1. Activate ZAUDIT subsystem** in the **Activation** menu.

NOTE: All functions that use the ZAUDIT subsystem will also be activated. To check which functions are affected, select **5. Auto start activities in ZAUDIT** in the Configuration menu.

NOTE: When reactivating **Audit** after an upgrade, take into consideration that all activity that took place during the upgrade will be written immediately to the **Audit** log files. This could have an adverse affect on performance. You might want to wait until a time of low system activity to perform the reactivation.

Activate Capture

1. Enter ***STRCPT*** from the command line to start **Capture**.
2. Select **11. Activation** in the **Capture** main screen.
3. Select **1. Activate Capture Now** in the **Activation** screen.

Activate Anti-Virus

1. Enter ***STRAV*** from the command line to start **Anti-Virus**.
2. Select **11. IFS Viruses, Worms and Trojans** in the **Anti-Virus** main menu The menu **IFS Viruses, Worms and Trojans** appears.
3. Select **1. Activation** in the **IFS Viruses, Worms and Trojans** menu. The **Activation** menu appears.
4. Select **1. Activate Real-Time Detection** in the **Activation** menu.

Activate AP-Journal

1. Enter ***STRJR*** from the command line to start **AP-Journal**.
2. Select **11. Applications, BizAlerts** from the **AP-Journal** main menu. The **Applications, BizAlerts - Definitions** menu appear.
3. Select **11. Activation** from the **Applications, BizAlerts - Definitions** menu. The **Collection to Containers** menu appears.
4. Select **1. Activate Real-Time Journal Collection** from the **Collection to Containers** menu.

Activate Authority on Demand

1. Enter ***STRAOD*** from the command line to start **Authority on Demand**.
2. Select **11. Activation** from the **Authority on Demand** main screen. The **Activation** menu appears.
3. Select **1. Activate ZAUTH subsystem**.

Activate Encryption

1. Enter ***STRENC*** from the command line to start **Encryption**.
2. Select **51. Activation** in the **Encryption** main screen.
3. Select **1. Activate ZENCRPT subsystem** in the **Activation** screen.

Product Specific Actions

Where relevant, perform the following product specific actions.

Journaling

For every product for which you are tracing iSecurity definition changes, you must recreate the journal for that product. The instructions below are the same for each product:

1. Select **82. Maintenance Menu**. The **Maintenance Menu** appears.
2. Select **71. Add Journal**. The **Create Journal - Confirmation** screen appears.
3. Press **Enter**. The journal for the product is created.

Audit

If you installed **Audit** as a pre-requisite for other modules (that is, you will not be working with **Audit** and you do not have an authorization code for **Audit**), do the following:

1. Enter ***STRAUD*** from the command line to start **Audit**.
2. Select **81. System Configuration** from the **Audit** main menu. The **iSecurity/ Base System Configuration** menu appears.
3. Press **Enter**. The **Audit** main menu appears.
4. Press **F3** to exit from **Audit**.

Screen

If you will be working with **Screen** in stand alone mode, you should run the following command to remove the Firewall auto start job entry:

```
RMVAJE SBSD(QSYS/QSYSWRK) JOB(GS#FIREWAL)
```

Password Reset

Password Reset has an option for users to reset their IBM i passwords on a web browser. They do this by accessing a web application. To install the web application, perform the following:

1. In the extracted installation directory, locate the **pr.war** file.
2. Deploy the **pr.war** file to any Java Application Server (such as Tomcat, WebSphere, and so on) on your network. The Server must run JVM version 6 or higher.
3. In any text editor, open the **web.xml** file in the **WEB-INF** directory and do the following:
   a. In the **JDBC URL** parameter of the file, enter the host name and IP address of the IBM i where **Password Reset** is installed, and the ID and Password of the owner of **Password Reset**. For example:

```
<init-param>
                    <description>JDBC URL</description>
      <param-name>jdbcUrl</param-name>
      <param-value>jdbc:host:IPaddress;naming=system;prompt=false;errors=full;date format=iso;translate binary=true;user=user;password=password</param-value>
                 </init-param>
```

b. In the **Questions Plugin Config**, **Crypt Plugin Config**, **IInitialQuestionsPlugin Config**, and **IInitialAnswersCheckerPlugin Config** sections of the file, enter the IP address of the IBM i where **Password Reset** is installed, and the ID and Password of the owner of **Password Reset** For example:

```
<init-param>
    <description>Questions Plugin Config</description>
    <param-name>questionsPluginConfig</param-name>
    <param-value>IPaddress,User,Password</param-value>
  </init-param>
```

c. Save and close the file.

4. Ensure that all users know the URL to access this option. The URL will be in the format **http://<*serverName*>:<*portNumber*>/pr** (for example, http://localhost:8080/pr).

   Instructions for using the web application can be found in the ***Password Reset User Guide***.

Libraries and Special Users

For each product that you install, specific product libraries are installed and special user profiles, authorization lists, and Job Schedule Entries are created.

Product	Libraries	Special Users	Authorization Lists	Job Schedule Entries
Action	SMZ4 SMZ4DTA /iSecurity /Smz4 /snmp	SECURITY2P	SECURITY1P	AU#MNT AU@DAILY AU@DAILYGU AU@DAILYHT
Anti-Virus	SMZV SMZVDTA /smzvdta /snmp	SECURITY5P	SECURITY5P	AV$UPDDFN AV#MNT AV@NTV
AP-Journal	SMZJ SMZJDTA SMZJcmbol SMZJ*yymmdd*, where *yymmdd* is the date the library was created for reports.	SECURITY4P	SECURITY4P	JR#MNT JR@DAILY
Audit	SMZ4 SMZ4DTA /iSecurity /Smz4 /snmp	SECURITY2P	SECURITY1P	AU#MNT AU@DAILY AU@DAILYGU AU@DAILYHT
Authority on Demand	SMZO SMZODTA	SECURITY8P FORGOT	SECURITY8P	OD#MNT OD@RMVEM
Capture	SMZC SMZCDTA	SECURITY7P	SECURITY7P	CP#MNT

Product	Libraries	Special Users	Authorization Lists	Job Schedule Entries
Change Tracker	SMZT SMZTDTA SMZT*yymmdd*, where *yymmdd* is the date the library was created for reports.	SECURITYTP	SECURITYTP	CT#MNT
Command	SMZ8 SMZTMPA SMZTMPB SMZTMPC	SECURITY1P	SECURITY1P	GS#MNT GS@DAILY GS@DAILYGU GS@DAILYHT
DB-Gate	SMZB SMZBDTA	SECURITYBP		DB#MNT
Firewall	SMZ8 SMZ8SYS SMZTMPA SMZTMPB SMZTMPC /smz8 /snmp	SECURITY1P	SECURITY1P	GS#MNT GS@DAILY GS@DAILYGU GS@DAILYHT
Password	SMZ8 SMZTMPA SMZTMPB SMZTMPC	SECURITY1P	SECURITY1P	GS#MNT GS@DAILY GS@DAILYGU GS@DAILYHT
Password Reset	SMZO SMZODTA	SECURITY8P FORGOT	SECURITY8P	OD#MNT OD@RMVEM
Screen	SMZ8 SMZTMPA SMZTMPB SMZTMPC	SECURITY1P	SECURITY1P	GS#MNT GS@DAILY GS@DAILYGU GS@DAILYHT

When you run *xx*QRY, where *xx* is the product name, library SMZR*yymmdd* is created, where *yymmdd* is the date the library was created for reports.

Comments

We hope you found this guide informative; your comments are important to us.

Raz-Lee Security wants its user manuals to be as helpful as possible; please send your comments about this user manual to docs@razlee.com.