Command™

The Command Filtering and Notification Component of iSecurity

iSecurity

User Manual

Version 17.22

RAZ-LEE™

The iSeries Security Experts

Updated: December 3, 2015

Copyright Notice

Visit our website at http://www.razlee.com .

Record your Product Authorization Code Here:

Computer Model:	
Serial Number:	
Authorization Code	

Table of Contents

About This Manual

This user guide is intended for system administrators and security administrators responsible for the implementation and management of security on System i (AS400) systems. However, any user with basic knowledge of System i (AS400) operations will be able to make full use of this product after reading this book.

Product Documentation Overview

Raz-Lee takes customer satisfaction seriously. Our products are designed for ease of use by personnel at all skill levels, especially those with minimal System i experience. 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 main printed documentation necessary for understanding **Command**. 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

- Menu options, field names, and function key names are written in **Bold**.
- References to chapters or sections are written in *Italic*.
- IBM i (OS/400) commands and system messages are written in ***Bold Italic***.
- Key combinations are separated by a dash, for example**:** Shift-Tab.
- Emphasis is written in **Times New Roman bold**.

Other iSecurity Products

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.

Other iSecurity products include:

Action

Action automatically intercepts and responds to security breaches, system activity events, QHST contents, and other message queues. Inquiring messages can be automatically answered. Alerts are sent by e-mail, SMS, pagers, or the message queues. Command scripts with replacement variables perform customized corrective actions, such as terminating a user session or disabling a user profile.

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.

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 production libraries, at both the object and source levels. It does not require any special actions by programmers, relying solely on the changes actually made to libraries as logged in QAUDJRN.

DB Gate

DB Gate lets users open concurrent and transparent SQL connections to numerous types of remote data sources and databases, on any IBM or non-IBM platform, using STRSQL and compile using CRTSQL for programs which refer to these databases.

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.

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.

Chapter 1: Introducing Command

Raz-Lee Security’s **Command**, part of the iSecurity suite, provides total control over CL commands, command parameters, their qualifiers and elements, as well as the users who are permitted to issue specific commands and change parameters.

Command filters the use of specific commands–both IBM supplied and user-defined– by specific users. It also includes a variety of industry-unique parameter selection criteria which enable adding, replacing or removing qualifiers, elements and lists of values used as command parameters.

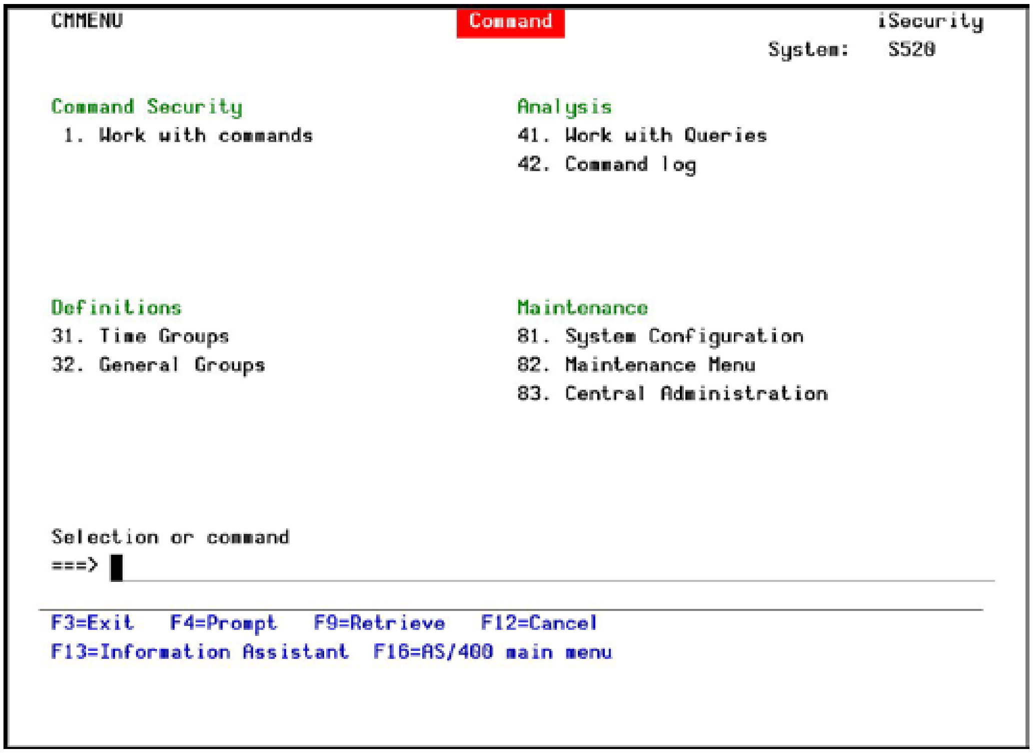
As **Command** is totally integrated into the infrastructure of products in the iSecurity suite, it can send real-time alerts as event-specific e-mails or SMS, Syslog, Twitter and other forms of messages. In addition, **Command** can execute corrective CL command scripts in response to specific command-related situations. **Command**’s iSecurity-based “look and feel” relates to print command log options as well.

To start the **Command** program, type ***STRCMD*** on any command line.

NOTE: If a system password is requested, type QSECOFR

The main screen is displayed which provides access to the different features of the product. The various feature groups are described in the following chapters:

- Command Security
- Definitions
- Analysis
- Maintenance



```
CMMENU                          Command                            iSecurity
                                                          System:    S520

Command Security                      Analysis
 1. Work with commands                41. Work with Queries
                                      42. Command log




Definitions                           Maintenance
31. Time Groups                       81. System Configuration
32. General Groups                    82. Maintenance Menu
                                      83. Central Administration




Selection or command
===>

F3=Exit   F4=Prompt   F9=Retrieve   F12=Cancel
F13=Information Assistant   F16=AS/400 main menu
```

Command MainScreen

The Need for Command

The IBM i (AS/400) has traditionally been used as an “application server”, accessed by users via menu-driven interfaces. Such an interface reduces the risk of users entering potentially damaging commands; however these facilities are not “air-tight” and can easily be bypassed.

As the need for full compliance with industry and “best practice” regulations has become the norm, companies worldwide demand greater control of command-line access. At the same time, companies and their auditors must be able to log and monitor command-line usage more effectively in order to ensure its proper business use.

Indeed, all regulations–SOX, HIPAA, PCI, BASEL II, and auditor-mandated regulations–require auditing and traceability of commands issued by users, whether they be system or database administrators, help desk or application users.

Feature Overview

- Designed and implemented based upon specific customer requests for a “total” solution to command-line control and monitoring
- Incorporates easy-to-define rules for controlling both command and parameter usage.
- Includes advanced features, such as displaying the programs in the command stack which generated the command and displaying the program library from which the command was entered.
- Displays and enables replacing or changing qualified parameters, element parameters and parameters which contain a list of values.
- Log File
- Protects commands from all sources:
  - Command line
  - CL Programs
  - QSH
  - SSH
  - SQL
  - REXEC
  - FTP

Benefits

- Easy to use and even easier to set up!
- Totally protects and monitors command usage
- Flexible and dynamic support of command parameters

- Wide variety of parameter selection criteria
- Indicates Qualified & Element parameters as well as a “list of values” parameter
- Enables replacing Based on a popular signature file used in the Open Source (Linux) environment

System Requirements

- Disk space: 110MB
- **PASE** (Portable Application Solutions Environment), a special Linux-like environment installation: required
  For further details, see : http://en.wikipedia.org/wiki/IBM_System_i
- Operating System: V5R3 or higher.

Native OS/400 Text Based User Interface

Command is designed to be a user-friendly product. The user interface follows standard System i CUA (Common User Access) conventions. All product features are available via the menus, so users are never required to memorize arcane commands. Many features are also accessible via the command line, for the convenience of experienced users.

Menus

Product menus allow for easy access to all features with a minimum of keystrokes. Menu option numbering and terminology are consistent throughout this product as well as other Raz-Lee products. To select a menu option, simply type the option number and press Enter. The command line is available from nearly all product menus. If the command line does not appear (and your user profile allows use of the command line), press F10 to display it.

Data Entry Screens

Data entry screens include many convenient features such as:

- Pop-up selection windows
- Convenient option prompts
- Easy-to-read descriptions and explanatory text for all parameters and options
- Search and filtering with generic text support.

The following describes the different data entry screens.

- To enter data in a field, type the desired text and then press **Enter** or **Field Exit**
- To move from one field to another without changing the contents press **Tab**
- To view options for a data field together with an explanation, press **F4**

- To accept the data displayed on the screen and continue, press **Enter.**

These function keys may appear on data entry screens.

Function Key	Description
F1 - Help	Display context-sensitive help
F3 - Exit	End the current task and return to the screen or menu from which the task was initiated
F4 - Prompt	Display a list of valid options for the current field or command. For certain data items, a pop-up selection window appears
F6 - Add New	Create a new record or data item
F8 - Print	Print the current report or data item
F9 - Retrieve	Retrieve the previously-entered command
F12 - Cancel	Return to the previous screen or menu without updating

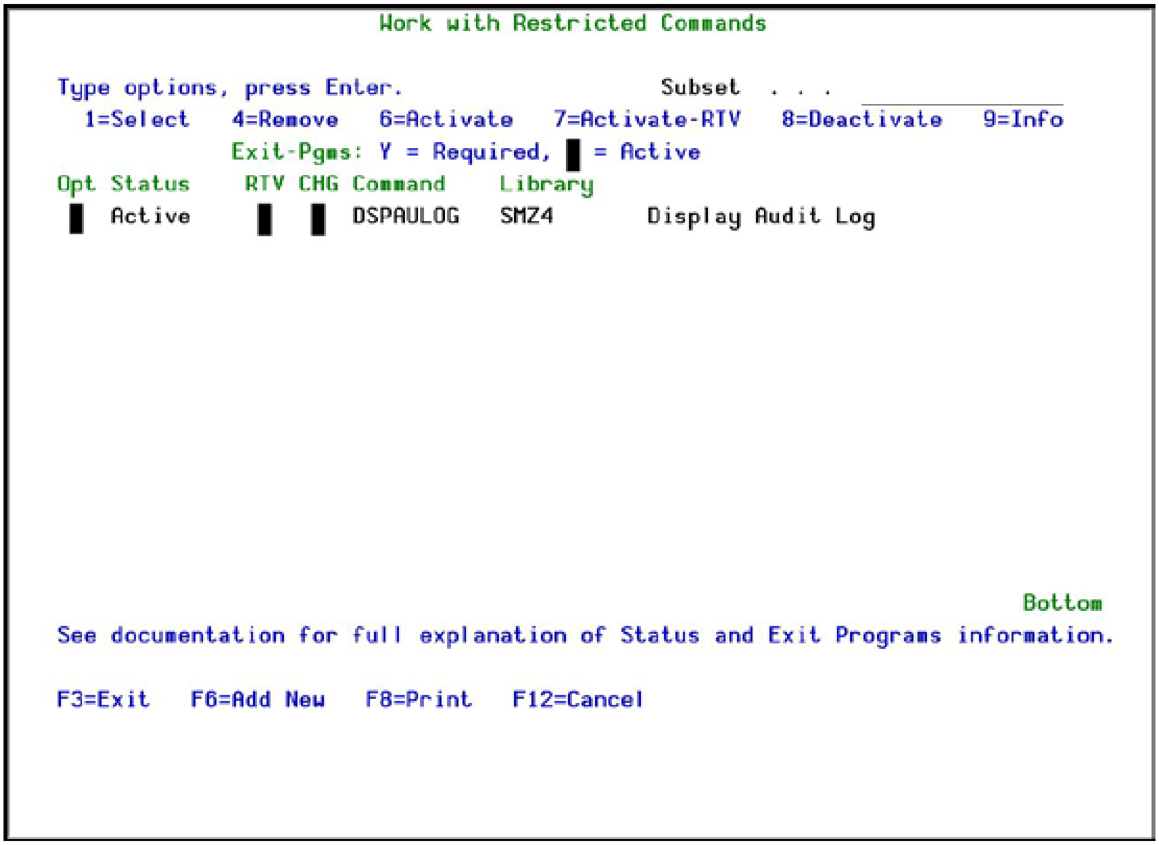
Chapter 2: Command Security

This chapter describes the various features that are central to **Command** security.

Work with Restricted Commands

Restricted commands are the basis for the rules that one creates and associates with specific libraries to control user activity on the system.

To work with restricted commands, select **1. Work with commands** from the main menu. The **Work with Restricted Commands** screen appears. It displays each command rule that has been entered into the system, the associated library in which it resides, if it has a rule and its description. If **Command** is currently tracking a specific command, its status is marked as **Active**.



```
                             Work with Restricted Commands

 Type options, press Enter.                          Subset  . . .  ______________
   1=Select    4=Remove    6=Activate    7=Activate-RTV   8=Deactivate    9=Info
               Exit-Pgms: Y = Required, █ = Active
 Opt Status     RTV CHG Command     Library
 █   Active     █   █   DSPAULOG    SMZ4       Display Audit Log

                                                                            Bottom
 See documentation for full explanation of Status and Exit Programs information.

 F3=Exit   F6=Add New   F8=Print   F12=Cancel
```

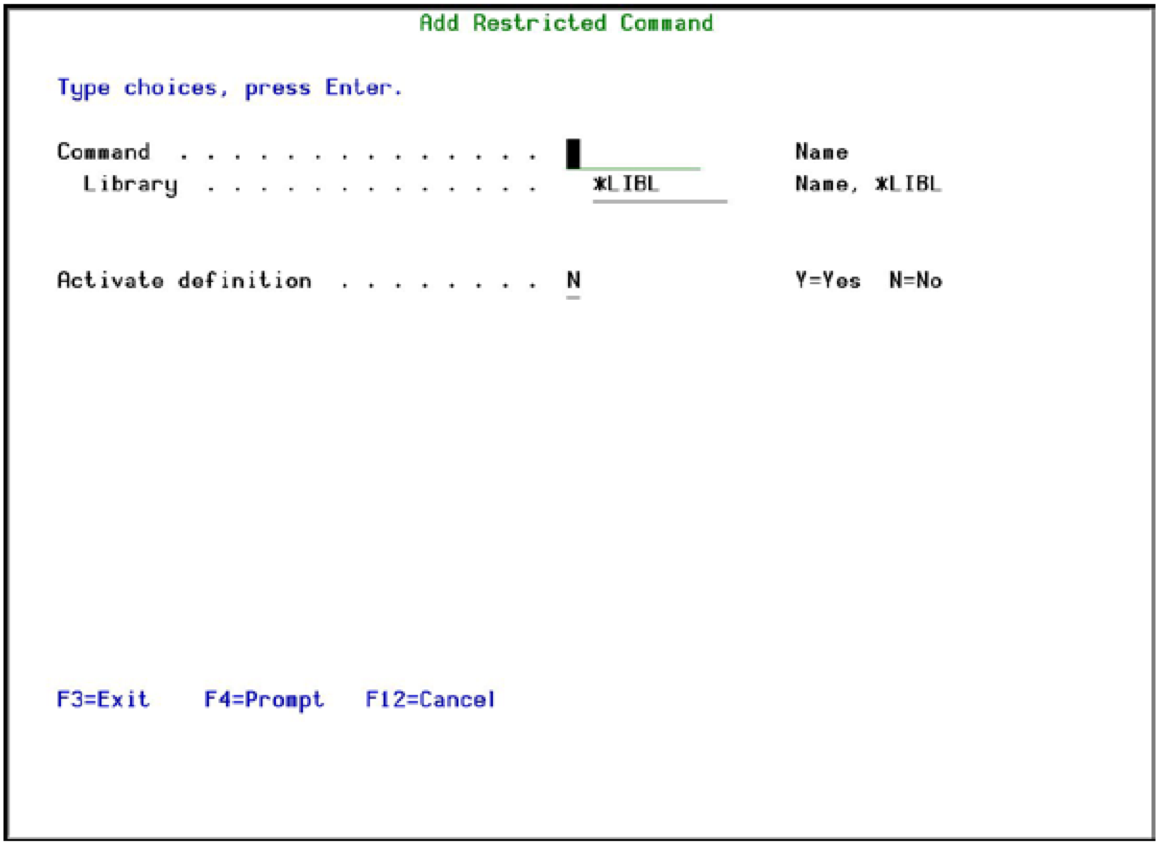
Work with Restricted Commands Screen

Parameter	Description
Option 1	Edit the selected command rule

Parameter	Description
Option 4	Remove the selected command rule
Option 6	Activate the selected command rule when the command is changed
Option 7	Activate-RTV the selected command rule when the command is retrieved
Option 8	Deactivate the selected command
Option 9	Display information about the selected command
F6	Opens the Add Restricted Command screen

Adding a New Command Restriction

To create a new command restriction, select **F6** from the **Work with Restricted Commands** screen. The **Add Restricted Command** screen is displayed.



```
                        Add Restricted Command

 Type choices, press Enter.

 Command  . . . . . . . . . . . . . .   _                Name
   Library  . . . . . . . . . . . . .    *LIBL           Name, *LIBL


 Activate definition  . . . . . . . .   N                Y=Yes  N=No











 F3=Exit    F4=Prompt   F12=Cancel
```

Add Restricted Command Screen

After completing the various fields described below, press **Enter** to continue. The new command restriction is added to the list on the **Work with Restricted Commands** screen.

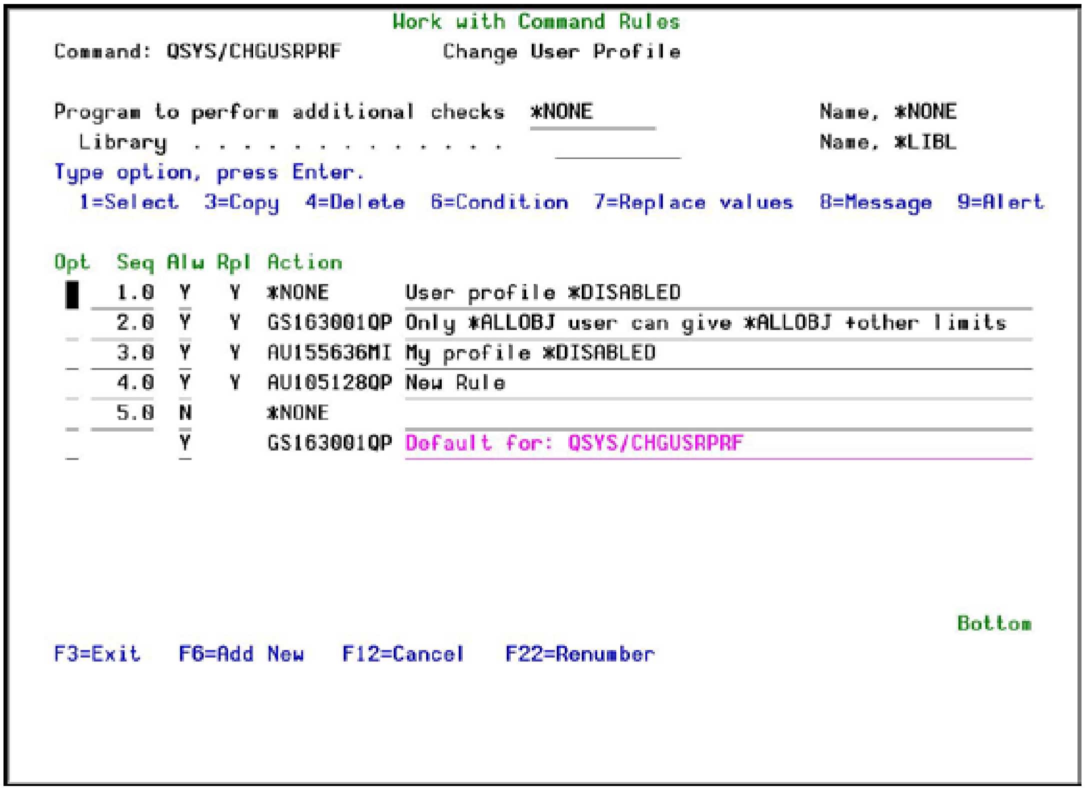
Parameter	Description
Command	Enter the name of the command to restrict. If a specific library has already been defined, press **F4** to display a prompt with the existing commands available to choose from in the library.
Library	Enter the name of the specific library where the command will run. If entering a command when *LIBL is displayed, Portable Application Solutions Environment will automatically insert the first library from the Library List that includes this command.

Parameter	Description
Activate Definition	**Y**=Yes **N**=No

Work with Command Rules

From the **Work with Restricted Commands** screen, choose **1. Select** to view a command's rules and edit them. The **Work with Command Rules** screen is displayed with each rule numbered according to the sequence in which it runs.

To update the position of a rule in the sequence, give it a new number and press return. The rules are resorted according to their numbers, but the actual numbers in the sequence are not updated. To update the numbers, press **F22**. The final item in the sequence cannot be moved and runs only when all items higher in the sequence are completed successfully.



```
                        Work with Command Rules
Command: QSYS/CHGUSRPRF        Change User Profile

Program to perform additional checks  *NONE              Name, *NONE
  Library . . . . . . . . . . . . .                      Name, *LIBL
Type option, press Enter.
  1=Select  3=Copy  4=Delete  6=Condition  7=Replace values  8=Message  9=Alert

Opt  Seq Alw Rpl Action
 _   1.0  Y   Y  *NONE      User profile *DISABLED
 _   2.0  Y   Y  GS163001QP Only *ALLOBJ user can give *ALLOBJ +other limits
 _   3.0  Y   Y  AU155636MI My profile *DISABLED
 _   4.0  Y   Y  AU105128QP New Rule
 _   5.0  N      *NONE
 _        Y      GS163001QP Default for: QSYS/CHGUSRPRF




                                                                      Bottom
F3=Exit   F6=Add New   F12=Cancel   F22=Renumber
```

Work with Command Rules Screen

Parameter	Description
Library/Command	The specific library where the command will run and the name of the command.
Sequence	The order in which the command rule will run
Run	If the command rule will run (**Yes**/**No**)
Action	Action that will run and a description of the Action.
F6	Opens a new **Add Command Rule** screen (see the **Work with a Command Rule** screen)
F22	To change the order that command rules run, change the Sequence number and press **Enter**. The rows are re-ordered according to the correct sequence, but may not begin at 1 or increment uniformly (for example, 2, 4, 5). Select option **22. Renumber** to reset the first command rule in the sequence to 1, incrementing by +1 for each new row.

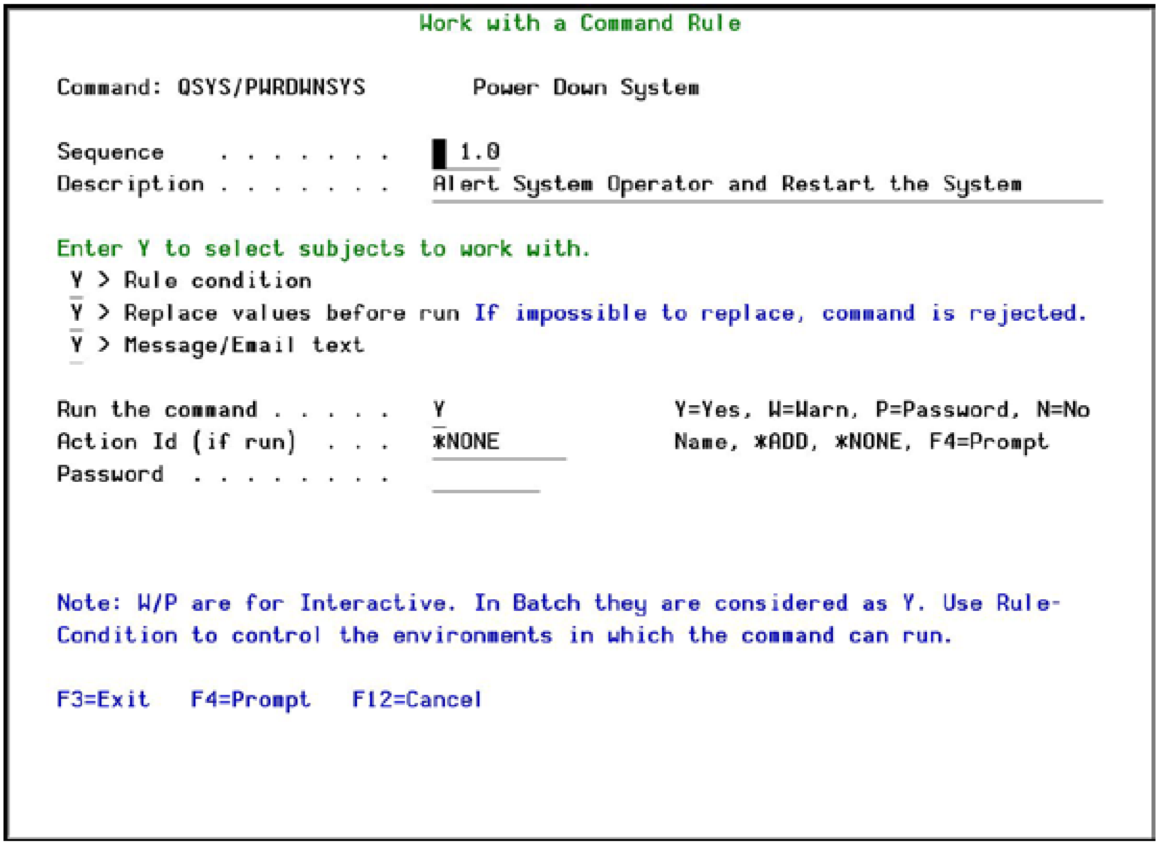
To edit a specific command rule row, choose **1. Select**. The **Work with a Command Rule** screen appears. When done, press **Enter**, and then press **Enter** again to confirm the update.

Work with a Command Rule

A command rule triggers an action and/or sends a message to a defined list of recipients. It appears as a single row above the actual command in the **Work with a Command Rule** screen.

To create a new command rule, press **F6**.

To edit a specific command rule, choose **1. Select**. The **Work with a Command Rule** screen opens.



```
                              Work with a Command Rule

  Command: QSYS/PWRDWNSYS        Power Down System

  Sequence  . . . . . . .    1.0
  Description . . . . . .    Alert System Operator and Restart the System

  Enter Y to select subjects to work with.
   Y > Rule condition
   Y > Replace values before run If impossible to replace, command is rejected.
   Y > Message/Email text

  Run the command . . . . .   Y                  Y=Yes, W=Warn, P=Password, N=No
  Action Id (if run)  . . .   *NONE              Name, *ADD, *NONE, F4=Prompt
  Password  . . . . . . . .


  Note: W/P are for Interactive. In Batch they are considered as Y. Use Rule-
  Condition to control the environments in which the command can run.

  F3=Exit   F4=Prompt   F12=Cancel
```

Work with a Command Rule Screen

Parameter	Description
Command	Command name and description (not editable)
Sequence Id	The number of this rule in the complete sequence of rules
Description	An editable description for the command rule. If the **Run the command** parameter is **W**, this is the message that is displayed to the user.
Rule condition	**Y=Yes** (or empty) When updating the rule, if Yes is selected (a rule condition exists), displays the Filter Condition screen when cycling through the different rule screens. **Note:** For the actual command (the final command rule row), this option is called Default and is empty.

Parameter	Description
Replace values before run	**Y=Yes** (or empty) When updating the rule, if Yes is selected (a replacement value exists), displays the **Replace Values** screen when cycling through the different rule screens. **Note:** If the values cannot be replaced, the command will be rejected.
Message/Email text	**Y=Yes** (or empty) When updating the rule, if Yes is selected (a message text exists), displays the **Message to Send** screen when cycling through the different rule screens.
Run the command	**Y=Yes** (with/out changes) **W=Warn** (when the command is run, displays the text in the **Description** field as a warning message) **P=Password** (when the command is run, the user will be asked to enter a password. Define the password in the **Password** field below) **N=No** (reject it) **W** and **P** are only relevant for interactive commands. If the command is used in batch mode, the parameter is assumed to be **Y**.
Action ID (if run)	When updating the rule, displays the Add/Modify Alert screen when cycling through the different rule screens. If the option ***NONE** is selected, the Add/Modify Alert will not be displayed **Name** = Name of an action ***ADD** (default) = Define a new action for this rule ***NONE** = no action is defined **F4** = Prompt to display a list of pre-defined messages. Pre-defined messages are stored in a special message file and are identified by their unique message ID.
Password	If the **Run the command** parameter is **P**, type the password that allows access to the command.
>	This symbol appears if a definition already exists

NOTE: Each time **Enter** is pressed, the next screen in the Command Rule cycle is displayed if it was previously enabled (Default=Yes) in the Work with a Command Rule screen.

To access each of these screens directly from the Work with a Command Rule screen, select its option number (6, 7, 8, 9) in the Work with Command Rules screen.

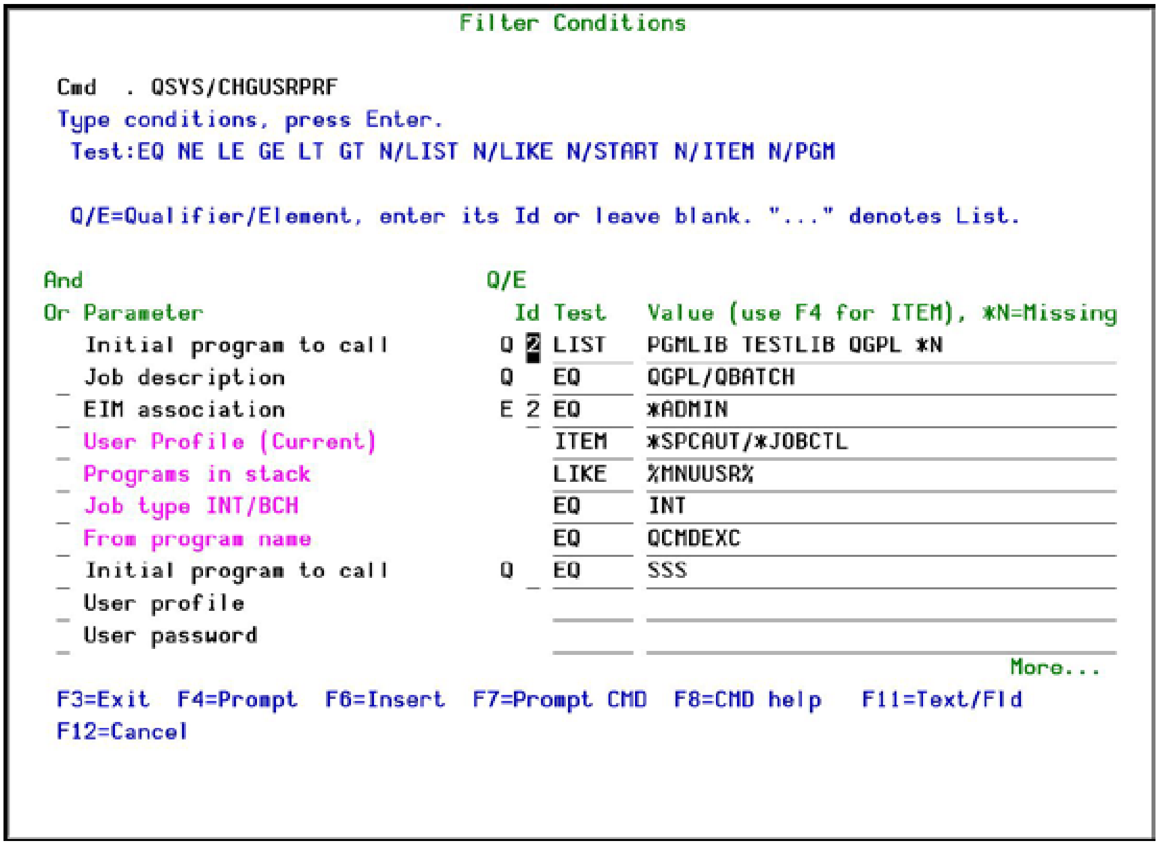
Filter Conditions

Filter conditions are the criteria that must be matched when a command is entered by a user in order to trigger the command's alerts, messages and changes. Each filter condition consists of a comparison test applied against one of the fields in the journal record, such as a parameter, originator (job, user, IP) or context (from which program, environment).

The **Filter Conditions** screen appears immediately after completing the **Work with a Command Rule** screen. To open it directly, choose a rule and select **6. Condition in the Work with Command Rules**.

NOTE: Filter conditions are optional. If no filter condition is defined, the command rule will permit all attempts to run the specified command.

Press **Enter** to complete and save this screen.



```
                                 Filter Conditions

   Cmd  . QSYS/CHGUSRPRF
   Type conditions, press Enter.
    Test:EQ NE LE GE LT GT N/LIST N/LIKE N/START N/ITEM N/PGM

    Q/E=Qualifier/Element, enter its Id or leave blank. "..." denotes List.

  And                              Q/E
  Or Parameter                       Id Test   Value (use F4 for ITEM), *N=Missing
     Initial program to call      Q 2  LIST   PGMLIB TESTLIB QGPL *N
  _  Job description              Q    EQ     QGPL/QBATCH
  _  EIM association              E 2  EQ     *ADMIN
  _  User Profile (Current)            ITEM   *SPCAUT/*JOBCTL
  _  Programs in stack                 LIKE   %MNUUSR%
  _  Job type INT/BCH                  EQ     INT
  _  From program name                 EQ     QCMDEXC
  _  Initial program to call      Q    EQ     SSS
  _  User profile
  _  User password
  _                                                                      More...
   F3=Exit  F4=Prompt  F6=Insert  F7=Prompt CMD  F8=CMD help   F11=Text/Fld
   F12=Cancel
```

Filter Conditions Screen

Parameter	Description□
And/Or□	**A or Blank** = And **O** = Or Combine multiple filter conditions in one rule using Boolean AND/OR operators to create complex rules that produce precise results. When using ‘Or’ operators in filter conditions, the order in which each condition appears in the list of conditions is critical. The ‘Or’ operator allows grouping of several conditions together because it includes all ‘And’ conditions that follow it until the next ‘Or’ operator, or until the end of the list. ‘And’ condition groups the ‘Or’ condition which was defined before it. **Example:** This rule will apply to all events meeting **either** the conditions listed in Group 1 **or** the conditions listed in Group 2. Group 2 includes the ‘Or’ condition and all of the ‘And’ conditions that follow it.
Parameter□	Parameters “…” denotes a list of additional values **Pink** fields are part of the generic header common to all journal types **Green** fields represent data specific to this journal type□
Q/E	Qualifier/Element of the parameter – enter its ID or leave it blank. **Example 1:** Reference to a specific qualifier or element enables one to differentiate between “PAYROLL” as part of the file name or the library name itself. **Example 2:** Some of the Change User Profile (CHGUSRPRF) parameters are: · Qualifier, such as INLPGM(library / program) · Composed of elements, such as EIMASSOC(admin *ADMIN *REPLACE) · Include a list of values, such as SUPGRPPRF(grpprf1 grpprf2 gprpprf3)
Test□	Comparison test type (see table below for details)
Value□	Comparison value text. **Note:** This filed is case sensitive.□
F4□	Displays explanatory information and/or options applicable to the data field on the line where the cursor is located □
F6□	Select another comparison test from a pop-up window and insert it at the current cursor position□
F7□	Prompt CMD – to display the command parameters

Parameter	Description□
F8	Change Caps Lock from lower to upper case. An indicator appears on the screen.

Comparison Test Operators

Comparison test operators help pinpoint specific conditions and users, for example ensuring the existence of a specific user in an external table and verifying that the user has special authority.

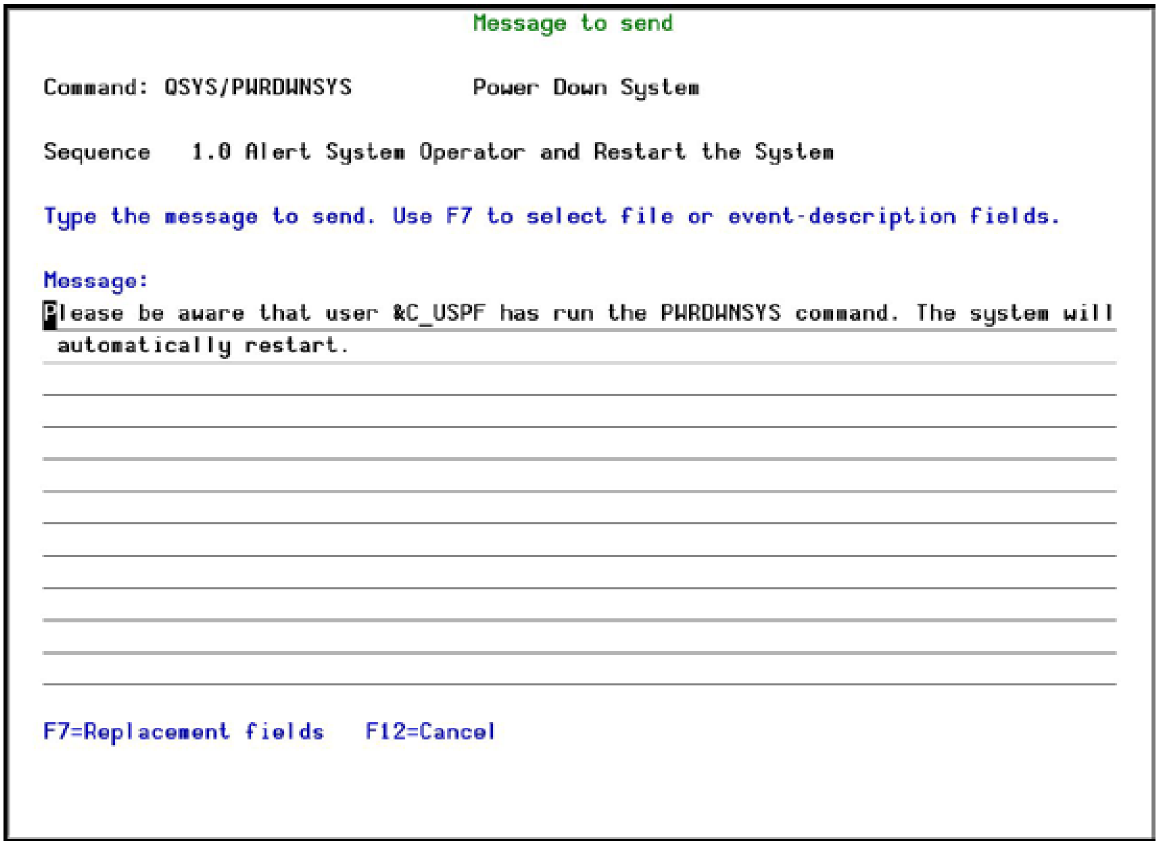
Several different types of comparison test operators are available:

Test□	Description□	Value Field Data
EQ,NE□	Equal to, Not equal to□	Value□
LT, LE□	Less than, Less than or equal to□	Value
GT, GE□	Greater than, Greater than or equal to	Value
LIST, NLIST□	Included in list, Not included in list□	Values separated by a space□
LIKE, NLIKE□	Substring search□	Value preceded and/or followed by **%**
ITEM/NITEM	Item in a group checks if the value is among the groups' members. The General group is an external value list that can be extended by creating new types.	***USER** – Check that the value is a user in a **%GROUP** of users ***GRPPRF** – Check that the value is a user in an **OS/400 Group Profile** ***USRGRP** – USER and all user profiles which are members of same user groups as USER ***ALL** – For both ***GRPPRF** and ***USRGRP** cases If the **TYPE** is missing, ***USER** or ***USRGRP** is assumed based on the appearance of % sign as the first character in the **GROUP**. ***SPCAUT** – Check that the value is in the users Special-Authority
START	Starts with, Does not start with	Starting characters of string
PGM, NPGM	Calls a specific user program to conduct a comparison which replies with True or False	The user program name (library/program)

Message to Send

When a command rule is matched, a message can be generated to alert different users. Enter the text of the message in this screen.

To automatically insert a system parameter within the body of the text, select **F7. Replacement Fields**. The **Select Parameter** screen opens. Move to the parameter you want to insert and choose **1. Select**. The screen closes and the parameter appears within the message.



```
                                Message to send

 Command:  QSYS/PWRDWNSYS         Power Down System

 Sequence   1.0 Alert System Operator and Restart the System

 Type the message to send.  Use F7 to select file or event-description fields.

 Message:
 Please be aware that user &C_USPF has run the PWRDWNSYS command. The system will
  automatically restart.

 F7=Replacement fields   F12=Cancel
```

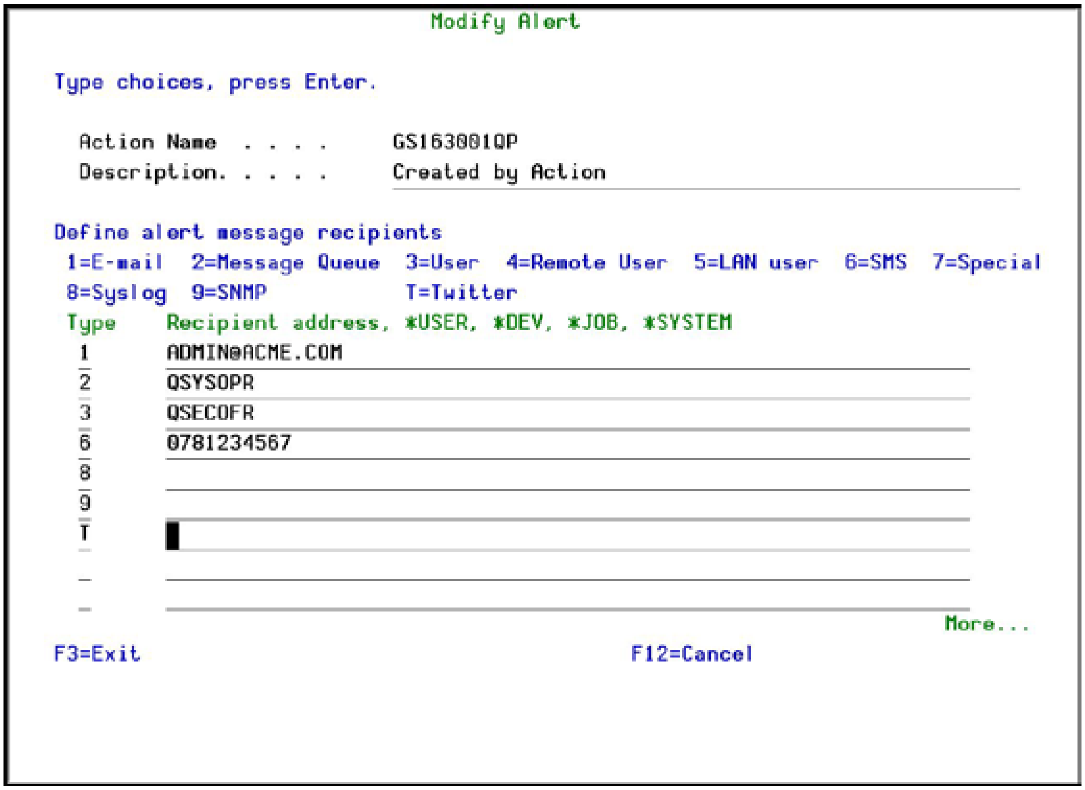
Message to Send Screen

Adding a Command Alert

The **Modify Alert** screen enables users to define how to send a command rule message that is already defined in the **Message to Send** screen and the recipients of the message.

To define alerts and alert recipients, choose the command rule in the **Work with Command Rules** screen and select **9. Alert**. The **Modify Alert** screen appears. This screen also appears after completing the **Work with a Command Rule** screen.

To specify a specific alert, enter its number in the **Type** column, and then define its recipient address types and formats as described in the table below.



```
                              Modify Alert

 Type choices, press Enter.

   Action Name  . . . .      GS163001QP
   Description. . . . .      Created by Action

 Define alert message recipients
  1=E-mail  2=Message Queue  3=User  4=Remote User  5=LAN user  6=SMS  7=Special
  8=Syslog  9=SNMP           T=Twitter
  Type    Recipient address, *USER, *DEV, *JOB, *SYSTEM
   1      ADMIN@ACME.COM
   2      QSYSOPR
   3      QSECOFR
   6      0781234567
   8
   9
   T
   _
   _
                                                                     More...
 F3=Exit                                    F12=Cancel
```

Add Alert Screen

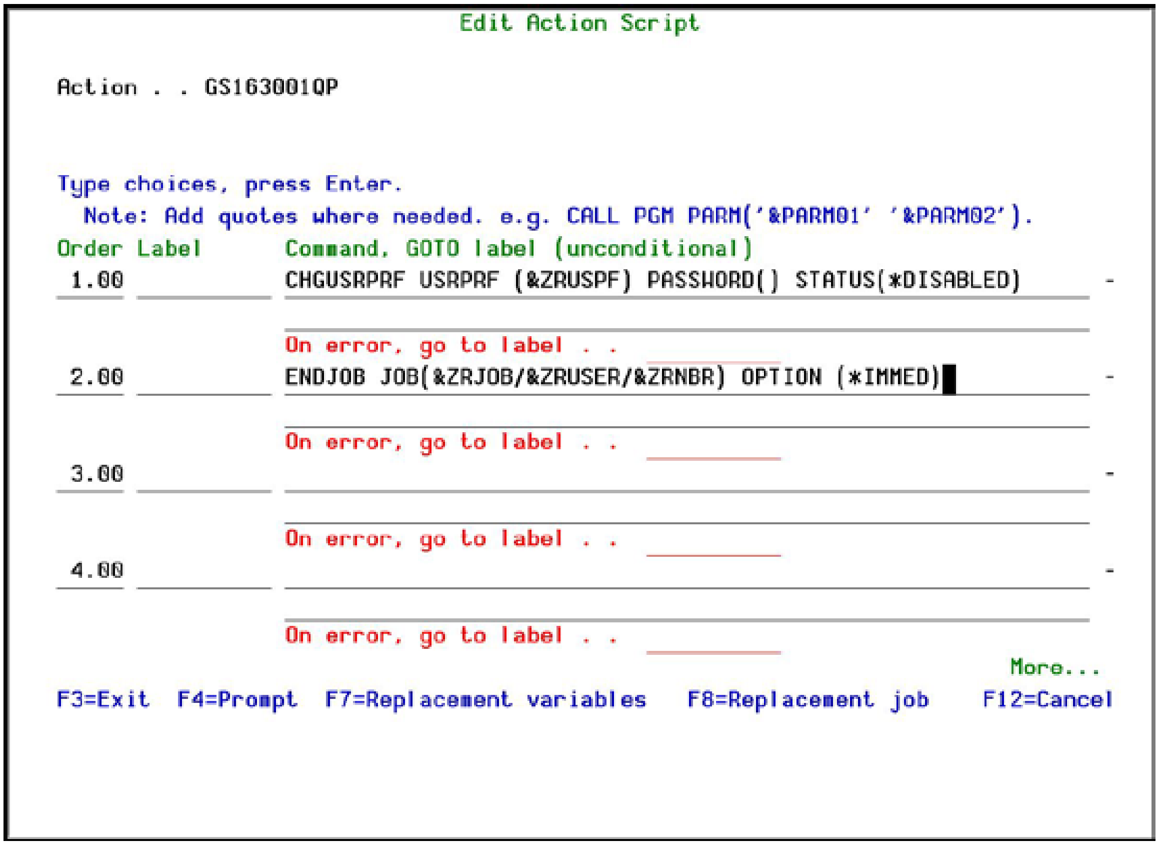
Parameter	Description□
Action Name	ID of the alert message
Description	Description of the alert
E-mail□	E-mail address in standard format (user@company.com)□
Message Queue	Fully qualified name of the message queue or *SYSOPR. For further details, see Audit User Manual, *Working with Message Queues* section.
User	User profile or AS/400 group profile
Remote User	Remote system user (*SNDNETMSG*)
LAN User	Valid network user name or *DOMAIN for all users on your domain□
SMS	Phone number including country code and area code as necessary□
Special	Phone number and access codes for the pager service□
Syslog	As defined in 81. System Configuration > 71. Syslog

Parameter	Description
SNMP	As defined in 81. System Configuration > 81. iSecurity/Base > 32. SNMP
Twitter	As defined in 81. System Configuration > 81. iSecurity/Base > 33. Twitter

Edit Action Script

Once an alert is completed, the Edit Action Script screen appears. Use this screen to define one or more command scripts to run whenever the command rule’s conditions are met.

Commands execute sequentially according to a user-defined order. They may include replacement variables that extract data from the history log record and insert it as command parameters. **Command** also supports conditional branching in the event that an error occurs during script execution.



```
                                  Edit Action Script

 Action . . GS163001QP


 Type choices, press Enter.
   Note: Add quotes where needed. e.g. CALL PGM PARM('&PARM01' '&PARM02').
 Order Label      Command, GOTO label (unconditional)
  1.00            CHGUSRPRF USRPRF (&ZRUSPF) PASSWORD() STATUS(*DISABLED)      -

                  On error, go to label . .
  2.00            ENDJOB JOB(&ZRJOB/&ZRUSER/&ZRNBR) OPTION (*IMMED)            -

                  On error, go to label . .
  3.00                                                                         -

                  On error, go to label . .
  4.00                                                                         -

                  On error, go to label . .
                                                                       More...
 F3=Exit  F4=Prompt  F7=Replacement variables  F8=Replacement job   F12=Cancel
```

Edit Action Script Screen

Parameters / Options	Description
Order	Order in which the commands are executed
Label	Optional alphanumeric label for the current line. Used for the On Error Go To Feature.
Command	Command text including all parameters
On Error, Go to Label	Conditional branch to the line indicated by the label in the event a script error results from the command on the current line
F4	Open prompt window for command parameters and options
F7	Select a variable from pop-up window and insert it at the current cursor position. Variables insert contents of journal entry data fields as command parameters.
F8	Inserts the 3 job variables (User, Job and Number) that are to be replaced when the command runs

Replacement Variables

Replacement variables allow users to extract data from the history log record and insert it into command scripts as parameters. For example, in a command script intended to terminate a suspicious job, the **Job Name**, **Job User** and **Job Number** information would be extracted from the journal entry and inserted into the appropriate parameter fields for the ***ENDJOB*** command. The command with replacement values would appear as follows:

ENDJOB JOB(&ZRJOB/&ZRUSER/&ZRNBR) OPTION(*IMMED)

NOTE: Replacement variables are always preceded by the '**&**' character. When selecting the data field from a list using **F7**, this character is inserted automatically.

To insert a replacement parameter:

1. Move the cursor to the appropriate location in the command script within the Edit Action Script window.
2. Press **F7** to display the **Select Parameter** screen.
3. Select the desired parameter from which to extract data, and press **Enter**.

Conditional Branching

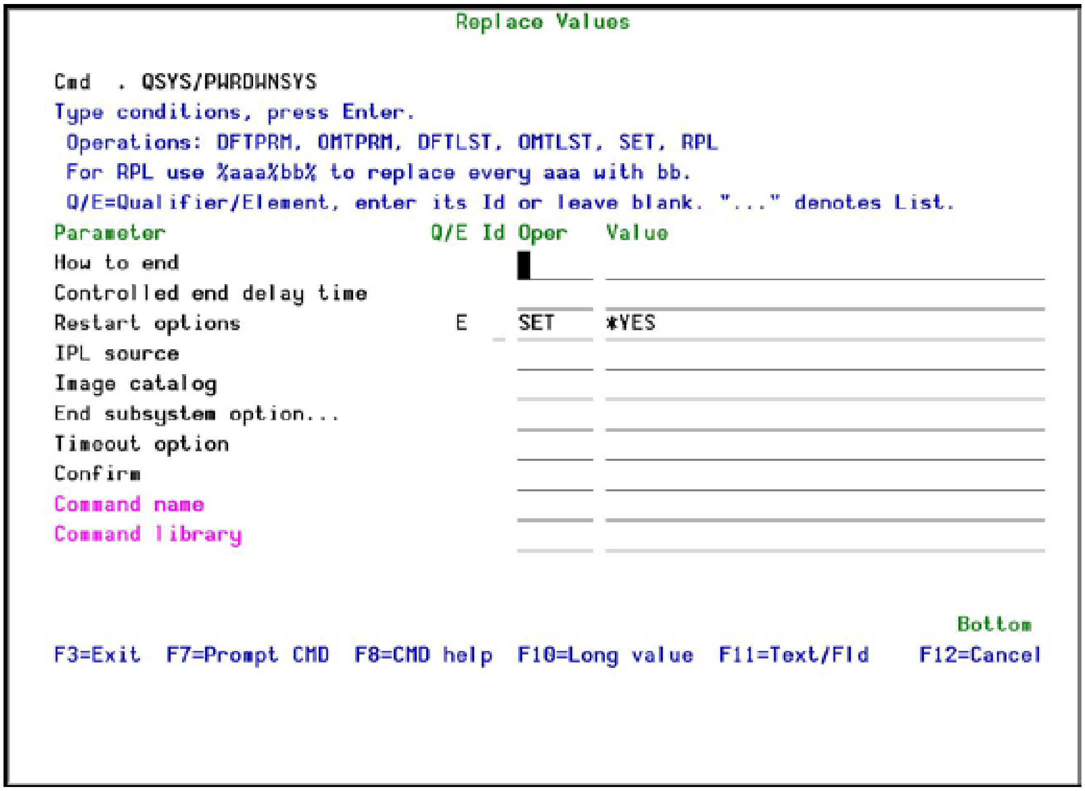
Action command scripts support conditional branching in the event of a script error. The Label field identifies a command line for branching purposes. The **On Error Go To Label** field instructs the script to branch to the line indicated by the label in the event that an error is generated by the command.

To end script processing in the event of a script error, insert a label on a blank line following the last command. Enter that label in the **On Error Go To Label** field on each active command line.

Replace Values

The **Replace Value** screen enables users to define what to replace, prior to execution of a command, any element, qualifier, an entire parameter or the CL command itself.

To define replacement values, choose the command rule in the **Work with Command Rules** screen and select **7. Replace Values**. The **Replace Values** screen appears. This screen also appears when cycling though the screens after the **Work with Command Rule** screen.



```
                                  Replace Values

  Cmd  . QSYS/PWRDWNSYS
  Type conditions, press Enter.
   Operations: DFTPRM, OMTPRM, DFTLST, OMTLST, SET, RPL
   For RPL use %aaa%bb% to replace every aaa with bb.
   Q/E=Qualifier/Element, enter its Id or leave blank. "..." denotes List.
  Parameter                     Q/E Id Oper    Value
  How to end                           _______ ___________________________
  Controlled end delay time            _______ ___________________________
  Restart options                E  _  SET     *YES
  IPL source                           _______ ___________________________
  Image catalog                        _______ ___________________________
  End subsystem option...              _______ ___________________________
  Timeout option                       _______ ___________________________
  Confirm                              _______ ___________________________
  Command name                         _______ ___________________________
  Command library                      _______ ___________________________



                                                                     Bottom
  F3=Exit  F7=Prompt CMD  F8=CMD help  F10=Long value  F11=Text/Fld   F12=Cancel
```

Replace Values Screen

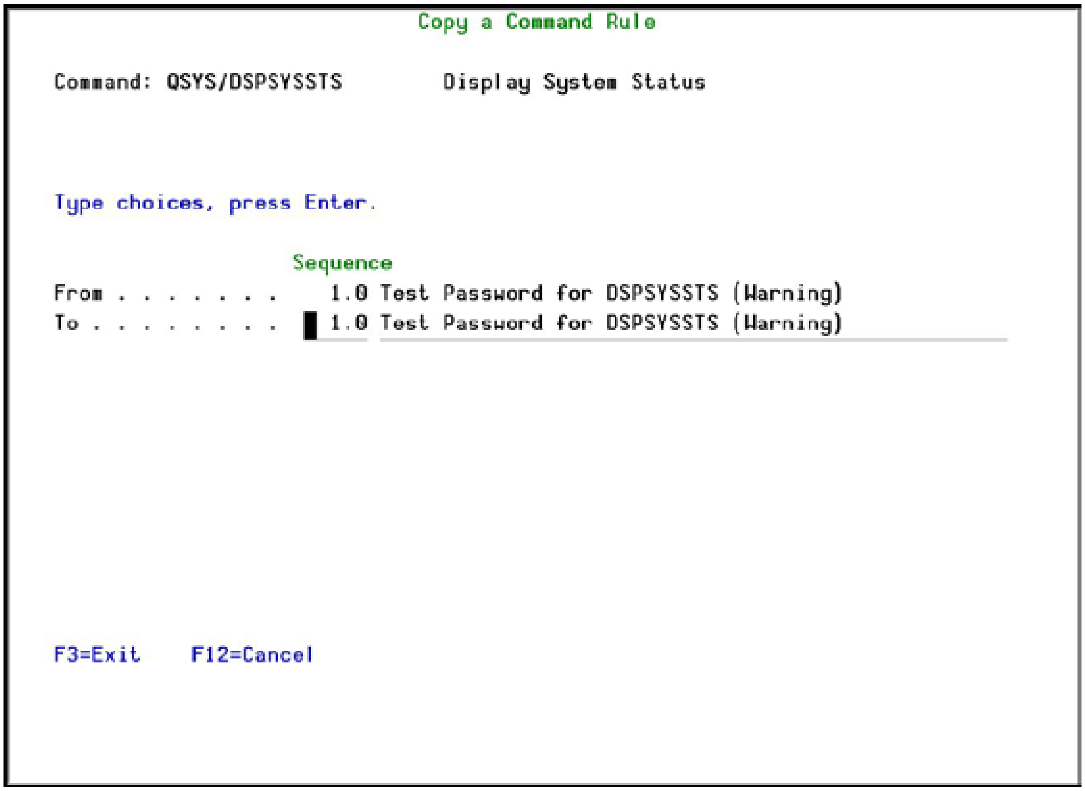
Parameters / Options	Description
Parameter	Parameters associated with the current command rule
Q/E	Qualifier or Element to replace
ID	ID of the Qualifier or Element

Parameters / Options	Description□
Oper	Action to take (as defined in the Operations line above) DFTPRM – Default Parameter OMTPRM – Omit Parameter DFTLST –Default List OMTLST – Omit List SET – Set Parameter RPL – Replace Parameter
Value	Replacement value
F7	Prompt CMD– to display the command parameters
F10	Long Value
F11	Toggles the parameter's descriptive name and field name

Copying a Command Rule

To make a copy of a command rule, choose the rule in the **Work with Command Rules** screen and select **3. Copy.** The **Copy a Command Rule** screen appears.

Update the changes as described in the table below and press **Enter.** The command rule is displayed with the new rule added in the sequence defined.



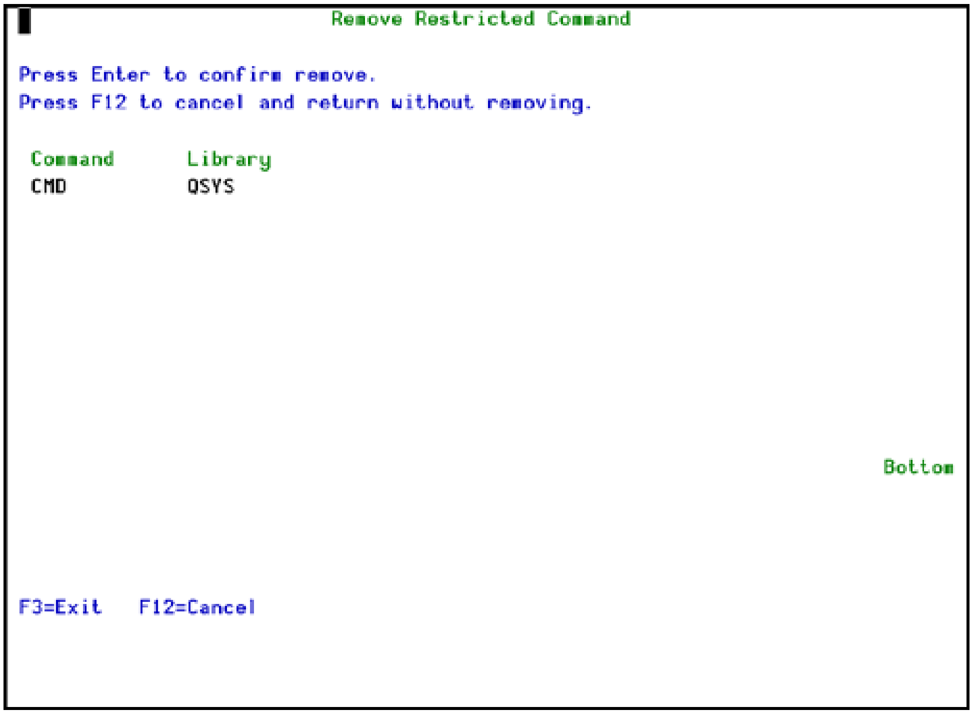
```
                         Copy a Command Rule

 Command: QSYS/DSPSYSSTS        Display System Status



 Type choices, press Enter.

                   Sequence
 From . . . . . . .    1.0 Test Password for DSPSYSSTS (Warning)
 To . . . . . . . .    1.0 Test Password for DSPSYSSTS (Warning)









 F3=Exit    F12=Cancel
```

Copy a Command Rule Screen

Parameter	Description
From	**Filter** = Sequence ID of the current rule **ID** = Description of the rule
To	**Filter** = Enter a new sequence number for the new rule **ID** = Change the description of the rule

Removing a Restricted Command

To remove a command, choose it and select **4. Remove**. The **Remove Restricted Command** screen appears. Press **Enter** to confirm its removal.



```
                          Remove Restricted Command

Press Enter to confirm remove.
Press F12 to cancel and return without removing.

 Command      Library
 CMD          QSYS









                                                                       Bottom






F3=Exit   F12=Cancel
```

Remove Restricted Command Screen

Chapter 3: Definitions, Analysis and Maintenance

In addition to the unique features of **Command**, there are powerful functions included from the **Audit**, **Firewall** and **Password** products. During the initial setup, **Command** also installs the required libraries from these external products. For inherited Definitions, Analysis and Maintenance screens that appear within **Command** and require a pre-set product type, **Command** is the default.

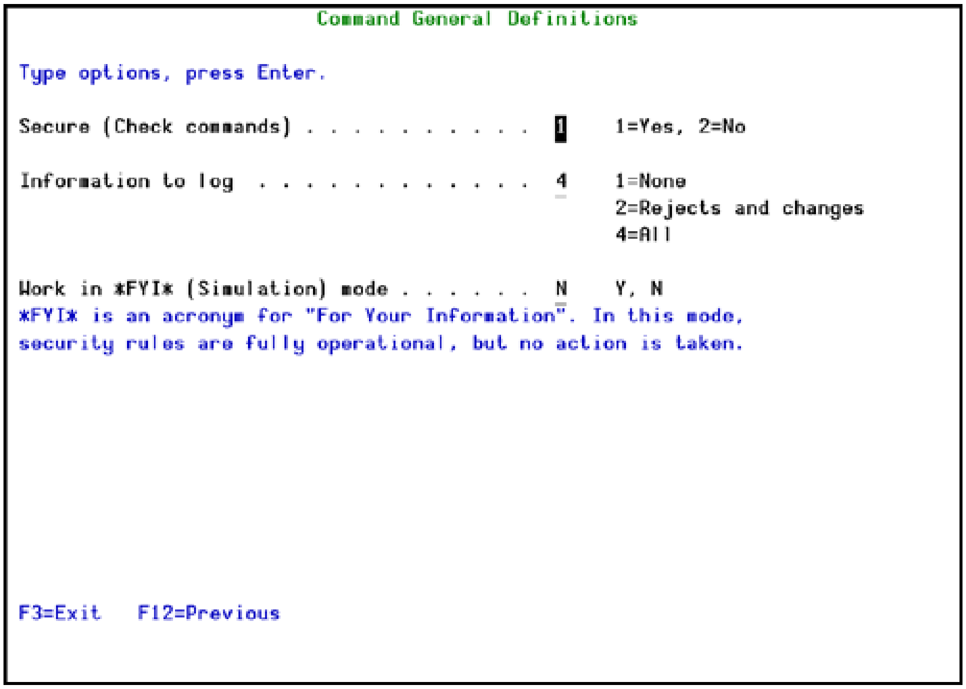
For a full explanation of the inherited functionality, please see the latest version of the documentation.

Functionality	Reference
Definitions	
31. Time Groups	Audit User Manual
32. General Groups	Audit User Manual
Analysis	
41. Work with Queries	Audit User Manual
42. Command log	Audit User Manual
Maintenance	
81. System Configuration	Firewall User Manual
	21. Password Dictionaries – see Password User Manual
	31. General Definitions – see *Command General Definitions* on page *27*
	81. iSecurity/Base – see Audit User Manual
82. Maintenance Menu	Firewall User Manual
83. Central Administration	Audit User Manual
83. Base Support	Audit User Manual

Command General Definitions

The **Command General Definitions** is a unique Maintenance screen that enables users to disable the product completely, determine which mode to run it in and what data to log.

To open the **Command General Definitions** screen, select **81. System Configuration** from the main screen, then **31. General Definitions**.



```
                         Command General Definitions

 Type options, press Enter.

 Secure (Check commands) . . . . . . . . . . .  1     1=Yes, 2=No

 Information to log  . . . . . . . . . . . . .  4     1=None
                                                      2=Rejects and changes
                                                      4=All

 Work in *FYI* (Simulation) mode . . . . . . .  N     Y, N
 *FYI* is an acronym for "For Your Information". In this mode,
 security rules are fully operational, but no action is taken.









 F3=Exit   F12=Previous
```

Command General Definitions Screen

Parameter	**Description**
Secure (Check commands)	**1 = Yes** – enables Command **2 = No** – disables Command
Information to log	**1 = None** **2 = Rejects and changes** **4 = All**

Parameter	Description
Work in *FYI* (Simulation) mode	*FYI* is an acronym for "For Your Information". In this mode, command rules are fully operational, but no action is actually taken. This allows you to review the History Log for analysis, and create valid security rules at a later time. **Y= Enable FYI** **N = Do not enable FYI**

Comments

We hope you found this user manual 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.