

RouteMagic

RouteMagic Controller

RMC-MP200 / MP1200

Quick Reference

- Version 3.5 -

Introduction

Thank you very much for choosing our RouteMagic Controller (RMC). This document describes CLI (Command Line Interface) commands of RMC. For specifications and general usage refer to "RouteMagic Controller Users Guide Version 3.5".

This document is for RMC Software Version 3.5. The latest software and manuals can be downloaded from the following URL:

<http://www.routrek.co.jp>

Related Documents

The following documents are available for RMC

- **RouteMagic Controller MP1200 / MP200 Installation Guide**
- **RouteMagic Controller MP1200 / MP200 Users Guide**
- **RMC Setup-server guide**
- **RouteMagic Controller Release Note**

RMC Command Notation

This document describes the commands for RouteMagic Controller (RMC) according to the notation stated below.

- **{ }**

An essential argument. (You do not need to describe the braces.)

Example: `set mailto {mail_address}`

Enter a mail address as an argument, e.g., a character string "operator@routrk.co.jp". You must not omit to describe the address.

- **[]**

An optional argument or element in the command. (You do not need to describe the brackets.)

Example: `set [no] exec`

You can specify "set exec" or "set no exec" as the command name.

Example: `set date {MMDDhhmm[YYYY]}`

This example shows a command to set a date and time in the system clock. "MMDDhhmm" (month, day, hour, minute) is an essential argument, but YYYY (year) is an optional argument.

- **|**

Shows several options as argument. You can select one of them and describe it.

Example: `set speed {2400|4800|9600|19200|38400}`

This example shows a command to set a communication speed of serial port. You can select one of five kinds of communication speed from 2400 bps to 38400 bps and specify it.

You must not omit to describe the communication speed.

- **Italicized Argument**

The italicized argument request you to specify a suitable character string or numerical value. If the arguments shown together with a command are not italic, select one of those arguments and describe as shown.

Example: `set hostname {hostname}`

Describe "rnc10"(RMC hostname) as an argument. Do not describe the character string "hostname".

Example: `set port {com N|ml N|eth N}`

Describe "com1", "com2", "ml0", "eth0", etc. as an argument.

Example: `set parity {none|odd|even}`

Describe any of "none", "odd" and "even" as an argument.

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1. System Commands

Command	Privileged Mode	Description
connect (Changed at Ver2.2)		<p>connect {comN}</p> <p>Connects a specified port to a terminal in use. If the command is executed in normal mode, user authorization is required which can be set by "set connect-users".</p> <p>To quit connection enter escape-character('ctrl - ¥') following to 'x'. Refer to "15 . Escape Character List of "connect"" for detail.</p>
copy (Changed at Ver3.5)		<p>copy {from} {to}</p> <p>Copies RMC configuration information.</p> <p>The following arguments can be specified:</p> <p>log:comN : Log of serial port running-config : Current RMC configuration startup-config : Saved RMC configuration target-config:comN : Device configuration connected to comN terminal : Console tftp : ftp server xmodem [-c] : XMODEM file transfer (-c for CRC check)</p> <p>copy log:comN {terminal tftp xmodem [-c]}</p> <p>Send serial port log to terminal/tftp server/XMODEM file transfer</p> <p>copy running-config {startup-config terminal tftp xmodem [-c]}</p> <p>Let the current configuration to save in RMC / send via tftp or XMODEM.</p> <p>copy startup-config {running-config terminal tftp xmodem [-c]}</p> <p>Let the saved configuration to overwrite to current configuration / show on terminal / send via tftp or XMODEM.</p> <p>copy target-config:comN {terminal tftp xmodem [-c]}</p> <p>Let the configuration of device connected by comN to show on terminal / send via tftp or XMODEM</p> <p>copy terminal running-config</p> <p>Overwrite current configuration via terminal.</p> <p>copy tftp {running-config startup-config terminal}</p> <p>Let the configuration in tftp server to overwrite to current configuration / save in RMC / show on terminal.</p> <p>copy xmodem [-c] {running-config startup-config terminal}</p> <p>Let the configuration received via XMODEM to overwrite to current configuration / save in RMC / show on terminal.</p>

Command	Privileged Mode	Description
disconnect (Supported from Ver2.1)		disconnect {com/M} Disconnects a specified "connected" port.
enable		enable Enters the privileged mode.
disable		disable Returns to a normal mode from the privileged mode.
exit (Changed at Ver2.1)		exit Logs out RMC.
quit (Changed at Ver2.1)		quit Logs out RMC.
reload		reload [-f] Restarts RMC. This command also saves serial-port log and device configuration into RMC. '-f' option to skip the save.
shutdown		shutdown [-f] Shuts down RMC. RMC is not restarted. This command also saves serial-port log and device configuration into RMC. '-f' option to skip the save.
upgrade (Changed at Ver3.5)		upgrade http [url [proxy]] Upgrade RMC Software by receiving upgrade file from http server. upgrade tftp [host:filename] Upgrade RMC Software by receiving upgrade file from tftp server. upgrade {xmodem [-c] zmodem} Upgrade RMC Software by receiving upgrade file via XMODEM/ZMODEM file translation ('-c' for XMODM CRC check). In either case, the system is restarted automatically when the upgrade has been completed. And the saved serial port logs and device configurations are cleared.
write erase		write erase Deletes the setting information saved in the configuration file. RMC is initialized after it is restarted. This command also clears saved serial port logs and device configurations.

Command	Privileged Mode	Description
write log (Supported from Ver3.0)		write log Saves serial-port logs and device configurations into RMC.
write memory		write memory Saves the current configuration about RMC in the configuration file.
clear log (Supported from Ver3.0)		clear log {com/N} Clears specified serial port log and device configuration.
set [no] banner (Supported from Ver2.1)		set banner [text] Sets a banner character string displayed when you log in RMC. Describe the displayed banner character string as the argument. If this command is executed without specifying any argument, the system waits for your entry. Enter any character string to be displayed as banner and press the [Enter] key. Then, the character string entered by you is set as the banner character. set no banner Deletes a banner character string set already.
set date		set date {MMDDhhmm[YYYY]} Perform the initial setting for the system clock held by RMC. Available arguments are MM (month), DD (day), hh (hour), mm (minute) and YYYY (year).
show date		show date Shows a value of the system clock held by RMC.
set timezone (Supported from Ver2.1)		set timezone [zonename] Specifies a timezone used by RMC. If this command is executed without specifying any argument, available timezones are listed. (Refer to “19. List of Timezones Supported by RMC”.) A default timezone is JST (Japan Standard Time).
set lang (Supported from Ver2.1)		set lang {en-ascii ja-euc ja-sjis} Sets a language and character code for the message of RMC. The setting can be performed per terminal. Any of “en-ascii” (English), “ja-euc”(Japanese EUC) and “ja-sjis” (Japanese Shift JIS).
set escape-character		set escape-character {character} Sets an escape character used for the connect command. “ctrl-?”, “control-?” (“?” is one arbitrary character) or “esc” can be specified as the argument. A default argument is “ctrl-¥”.

Command	Privileged Mode	Description
set [no] exec-timeout		<p>set exec-timeout {N} If any command is not entered for N minute(s), log-out is performed automatically. By default, three minutes are specified. (If the connect command is used, this timer is disabled.)</p> <p>set no exec-timeout Log-out is not performed automatically. (This is the same as “set exec-timeout 0”.)</p>
set [no] options (Changed at Ver3.0)		<p>set options {option1} [option2] ... Set RMC Option. For available options refer to “12 . Option Parameter List“</p> <p>set no options{option1} [option2] ... Unset specified option. Unset all options if no argument specified.</p>
show port		<p>show port {port_name}... Shows the status of a specified port and its setting information. Several arguments can be specified. For available port names, refer to “11. Port Name List”.</p>
end (Supported from Ver2.1)		<p>end Cancels the designation of a current port. To enter “CTRL-Z” without entering any character is the same as this command.</p>
set [no] prompt		<p>set prompt Shows a prompt to confirm the execution of critical commands for shutdown, restart, etc. This command is enabled by default. The “write memory” command does not apply to this setting item. This item is initialized to a default value whenever you log in.</p> <p>set no prompt Does not show a prompt for confirmation.</p>

Command	Privileged Mode	Description
set [no] terminal (Supported from Ver2.1)		<p>set terminal [{M} {M}]</p> <p>Performs paging when command results cover two or more pages. During paging, the screen is scrolled page by page at every pressing the [Space] key and line by line at every pressing the [Enter] key. When you press the [Q] key, scrolling is terminated and no more pages are displayed.</p> <p>The number of lines and the number of columns displayed on a terminal can be specified by the arguments. If no argument is described, default system values are used. This command is enabled by default and the number of lines and the number of columns are system default values. The “write memory” command does not apply to this setting item. This item is initialized to a default value whenever you log in</p> <p>set no terminal</p> <p>Does not perform paging.</p>
set [no] terminal (Supported from Ver2.1)		<p>set terminal [{M} {M}]</p> <p>Performs paging when command results cover two or more pages. During paging, the screen is scrolled page by page at every pressing the [Space] key and line by line at every pressing the [Enter] key. When you press the [Q] key, scrolling is terminated and no more pages are displayed.</p> <p>The number of lines and the number of columns displayed on a terminal can be specified by the arguments. If no argument is described, default system values are used. This command is enabled by default and the number of lines and the number of columns are system default values. The “write memory” command does not apply to this setting item. This item is initialized to a default value whenever you log in</p> <p>set no terminal</p> <p>Does not perform paging.</p>
set [no] spy (Changed at Ver2.1)		<p>set spy {comN} rmc targetM [tflM] {comN} mlN terminal}</p> <p>Establishes a unidirectional connection from a port to another port. For available ports, refer to “11. Port Name List”. For example, if “set spy com1 ml1” is executed, input of com1 is sent from ml1 (mail port 1). A filter is specified as the second argument, the input of com1 is filtered and then sent from a mail port. A filter is tflN can be specified by the “set target-filter”. (Refer to “8. Command for Customization of Target Device.”)</p> <p>set no spy {comN} rmc targetM [tflM] {comN} mlN terminal}</p> <p>Cancels the connection set by “set spy”. If the second and third arguments are omitted, all the connections from comN are canceled.</p>
show spy		<p>show spy</p> <p>Shows the status of connection set by “set spy”.</p>

Command	Privileged Mode	Description
set [no] user-name		set user-name {login_name} [password] ◦ Adds a user name to log in RMC. set no user-name {login_name} Deletes a user of specified log-in name.
show user-names		show user-names Lists user names registered in RMC.
set user-password		set user-password {login_name} {password} Changes a password of specified log-in user.
show users		show users Shows users, who are logging in, and elapsed time.
show configuration		show configuration [system serial ether mail mailport ip] Shows the details saved in a configuration of RMC. Fields of setting to be shown can be specified by the arguments. If any argument is not described, all the field of setting are shown. To show all the settings, use the "copy startup-config terminal" command.
show running-config		show running-config [system serial ether mail mailport ip] Shows the details of current setting of RMC. Fields of setting to be shown can be specified by the arguments. If any argument is not described, all the field of setting are shown. To show all the settings, use the "copy running-config terminal" command.
show memory		show memory Shows the status of memory in use.
show tech-support		show tech-support [N] Shows various logs necessary for technical support by a maximum of N lines. (By default, a log is shown by 50 lines.)
show target-config (Changed at Ver3.5)		show target-config {com/M} Shows configuration of device connecte to specified serial port.◦ The configuration is taken by running network-info script.
show version		show version Shows a hardware version of RMC, MAC address, memory information, software version, supported device types by default, uptime, load to CPU, etc.

2 . Local Commands for Serial Port

When executing the commands below, execute the “set port” command to select the serial ports (com1, com2, ...) in advance.

Command	Privileged Mode	Description
set csize		set csize {5 6 7 8} Sets the number of bits per character in a current port. A default argument is “8”.
set flowcontrol		set flowcontrol {none software hardware} Specifies whether to perform the flow control by software (XON/OFF) or by hardware (RTS/CTS). A default argument in any case other than a modem port is “none”.
set parity		set parity { none odd even } Sets a parity for a current port. A default argument is “none”.
set speed		set speed { 2400 4800 9600 19200 38400 57600 115200 } Sets a communication speed of a current port. A default argument is “9600”.
set stopbits		set stopbits {1 2} Sets a stop bit of a current port. A default argument is “1”.
set [no] description (Supported from Ver2.1)		set description [text] Sets user comment for current serial port. The command can be shown by “show port” command. set no description Deletes the user comment for current serial port.
set [no] exec		set exec Allows to use a current port as a serial console. This command can be executed only for COM2 in RMC-MP200 and COMA in RMC-MP1200. set no exec Forbids to use a current port as a serial console.

Command	Privileged Mode	Description
set [no] modem		<p>set modem [modem_name] [tone pulse none] [modem_init_string] Specifies a type of modem connected to a current port and informs the system that a modem has been connected. The arguments "modem_name", "tone pulse none" and "modem_init_string" specify a modem name, dialing system and modem initialization command, respectively. A default argument is "generic tone". Only if "custom" is specified as a modem name, a modem initialization command (AT command) can be used. This command is available only for COM2 in RMC-MP200 and COMB in RMC-MP1200.</p> <p>set no modem Cancels the modem connection. When using as a serial console, execute "set exec" after that.</p>
set [no] ppp-username		<p>set ppp-username {name} {password} {phone_number} Specifies a user name, password and phone number necessary for the PPP connection to the outside. You must not omit the arguments.</p> <p>set no ppp-username {name} Delete the PPP connection information about a user name specified by the argument.</p>
set [no] ppp-server		<p>set ppp-server {rmc_pppaddress} {client_pppaddress} Enables the PPP connection from the outside to RMC. The arguments specify a PPP address of RMC for the PPP connection and another PPP address given to a client.</p> <p>set no ppp-server Disables the PPP connection from the outside to RMC.</p>
set [no] target-login-name (Supported from Ver2.1)		<p>set target-login-name {login_name} Specifies a user name to log in a target device.</p> <p>set no target-login-password Delete a log-in name for a target device registered in RMC.</p>
set [no] target-login-password		<p>set target-login-password {password} Specifies a password to log in a target device.</p> <p>set no target-login-password Delete a log-in password for a target device registered in RMC.</p>
set [no] target-enable-password		<p>set target-enable-password {password} Sets a password to use the privileged mode in a target device.</p> <p>set no target-enable-password Erase a privileged mode password for a target device registered in RMC.</p>

Command	Privileged Mode	Description
set [no] connect-log		<p>set connect-log Outputs an operation log of a port connected by the “connect” command to the port “targetN”.</p> <p>set no connect-log Does not output an operation log of a port connected by the “connect” command. By default, “set no connect-log” is enabled. (No log is output.)</p>
set [no] connect-users (Supported from Ver2.2)		<p>set connect-users {login_name} [login_name]... Sets authorized users who can “connect” for current serial port in normal mode.</p> <p>set no connect-users Deletes “connect” command authorization for current serial port. All user can user “connect” command for current serial port. (By default “set no connect-users” is enabled.)</p>
set [no] network-info-time		<p>set network-info-time {h [,h]...} {m[,m]...} Specifies time to send network information collected from a target device. The collected network information is output to the port “targetN”. The first argument and second argument specify hour and minute, respectively. Several hours and minutes can be specified by separated several arguments with commas. If “8,20 00,30” is described as argument, transmission is executed at 08:00, 08:30, 20:00 and 20:30.</p> <p>set no network-info-time Stops sending network information. By default, “set no network-info-time” is enabled. (Network information is not sent.)</p>
set [no] target-check		<p>set target-check [M] Uses a function to check whether a target device is enabled. A message whether a target device is enabled is output to the port “targetN”. If the argument N is specified, check is performed at every N minute(s). If the argument N is omitted, check is performed at every 15 minutes.</p> <p>set no target-check Does not use a function to check whether a target device is enabled. (By default, “set no target-check” is enabled.)</p>

Command	Privileged Mode	Description
<p>set [no] target-ping-check (Supported from Ver3.0)</p>		<p>set target-ping-check {address} [interval [count [min]]]</p> <p>Uses a function to check whether a target device for current serial port is enabled by ping. A message whether a target device is enabled is output to the port "targetN". The argument "address" is device's IP address or hostname. If the argument interval is specified, check is performed at every "interval" minute(s). The argument "count" is to specify number of ping packets by each check. The argument "min" is number of returned ping packets to assume the target is alive. (By default the ping check is performed at every 5 minutes, send 3 ping packets, and assume the target is alive if more than 1 ping packet is returned.)</p> <p>set no target-check</p> <p>Does not use a function to check whether a target device is enabled by ping. (By default, "set no target-ping-check" is enabled.)</p>
<p>set target-type (Changed at Ver2.1)</p>		<p>set target-type {cisco custom user_target} [arg1] [arg2] [arg3] [arg4]</p> <p>Specifies a type of target device connected to RMC. By default, "cisco" is specified.</p> <p>An arbitrary device type defined by "set user-target-type" also can be specified. In this case, a filter of device message and a script to acquire information on check whether a target device is enabled and network information must be defined per device by the "set target-filter" and "set target-script" commands. (Refer to "8. Command for Customization of Target Device".) The second or later arguments are passed as the arguments for the filter and script.</p> <p>A device type "custom" is for maintaining compatibility with Ver. 2.0. If this is set, a script to acquire information on check whether a target device is enabled and network information must be defined per com port by the "set script" command.</p>

Command	Privileged Mode	Description
set [no] script		<p>set script {login network-info target-check}</p> <p><u>This command is for maintaining compatibility with Ver. 2.0. It is advisable to use the "set target-script" command for Ver. 2.1 or later versions.</u></p> <p>You can define a script specified the argument. After the command is executed, input a script and terminate the input by "CTRL-D". For the specifications for script, refer to RMC Command Reference. This command can be executed only if a target device type (target-type) is "custom".</p> <p>Available scripts are as follows:</p> <p>"login": A script to log in a target device when a command mail is executed.</p> <p>"network-info": A script to acquire network information.</p> <p>"target-check": A script whether a target device is enabled. (If this argument is specified, the status of serial signal line is examined to check whether a target device is enabled.)</p> <p>set no script {login network-info target-check}</p> <p>Deletes a specified script.</p>

3. Local Commands for Ethernet Port

When executing the commands below, execute the “set port” command to select the Ethernet ports (eth0, eth1) in advance.

Command	Privileged Mode	Description
set [no] address		<p>set address {<i>IP_address</i>} {<i>net_mask</i>} [<i>default_gateway</i>] Sets the IP address of interface, netmask and default gateway. The default gateway can be omitted. The default gateway can be specified only in eth0.</p> <p>set address auto When booting, investigates the status of network, selects the IP address automatically and sets it. If “set dhcp” is already set, priority is given to an address acquired from a DHCP server. This command is enabled only in RMC-MP200.</p> <p>set no address Discards an address set by “set address”. This setting is enabled when the system has been restarted after such setting is saved. By default, no IP address is set.</p>
set [no] broadcast-address (Changed at Ver2.1)		<p>set broadcast-address {<i>broadcast_address</i>} Specifies a broadcast address.</p> <p>set no broadcast-address Returns the broadcast address to a default address 255.255.255.255. If a DHCP client function is enabled, priority is given to an address acquired from a DHCP server. This setting is enabled when the system has been restarted after such setting is saved.</p>
set [no] dhcp (Changed at Ver3.0)		<p>set dhcp [<i>timeout</i>] Enables a DHCP client function. By default, this function is enabled. This setting is enabled when the system has been restarted after such setting is saved. If “set address” is already set, priority is given to the setting of “set address”. This command is enabled only in the eth0 port.</p> <p>set no dhcp Disables a DHCP client function. This setting is enabled when the system has been restarted after such setting is saved.</p>
set speed (Supported from Ver2.1)		<p>set speed {<i>auto</i> <i>10</i> <i>100</i>} [<i>full</i> <i>half</i>] Sets a speed (auto negotiation / 10BaseT / 100BaseTx) of an Ethernet port and specifies full duplex or half duplex. This command is enabled only in RMC-MP1200.</p>

4. Commands for Electronic Mail

Command	Privileged Mode	Description
set [no] filter-list		<p>set filter-list {f1N} [filter_pattern]</p> <p><u>This command is for maintaining compatibility with Ver. 2.0 or older versions. It is advisable to use the “set target-filter” command for Ver. 2.1 or later versions.</u></p> <p>Sets a filter specified by the arguments.</p> <p>The first argument specifies a name of filter to be set and the second argument specifies a character string to be set as the filter. If this command is executed without specifying any argument, the system waits for your entry. Enter any character string to be set as a filter and press the [Enter] key. Then, the character string entered by you is set as a filter.</p> <p>“f10”, “f11”, “f12” and “f13” have a default value for the Cisco products (router, switch). (Refer to “List of System Set Values”.)</p> <p>set no filter-list {f1N}</p> <p>Deletes a filter specified by the argument.</p>
set [no] keep-alive-time		<p>set keep-alive-time {h [,h]...} {m[,m]...}</p> <p>Specifies time to send a “keep-alive” message. The “keep-alive” message is output to the port “rnc”. The first argument and second argument specify hour and minute, respectively. Several hours and minutes can be specified by separated several arguments with commas.</p> <p>If “8,20 00,30” is described as argument, transmission is executed at 08:00, 08:30, 20:00 and 20:30.</p> <p>By default, the time of transmission specific to each RMC is set.</p> <p>set no keep-alive-time</p> <p>Stops sending a “keep-alive” message.</p>
set [no] mail-certification		<p>set mail-certification</p> <p>Authenticates a mail received from RMS (RouteMagic Server). By default, authentication is enabled. A PGP public key for RMS must be set, excluding the RES encryption setting.</p> <p>set no mail-certification</p> <p>Does not authenticate a mail received from RMS.</p>
set [no] mail-origin		<p>set mail-origin {domain_name}</p> <p>Sets a domain part of “From” address of a mail sent by RMC.</p> <p>set no mail-origin</p> <p> Cancels domain assignment. (This is default setting.) In this case, the “From” address of mail sent by RMC is “rnc@[IP address]”.</p>

Command	Privileged Mode	Description
set [no] mail-relayhost		<p>set mail-relayhost {relayhost} Specifies a relay host name for mail transmission. By default, no host name is specified. (Direct transmission)</p> <p>set no mail-relayhost Cancels the relay host setting.</p>
set [no] mail-service		<p>set mail-service Starts the electronic mail service.</p> <p>set no mail-service Stops the electronic mail service. A default setting is "no". (Transmission is not performed)</p>
set [no] public-key		<p>set public-key Sets a PGP public key used to authenticate and encrypt a mail. After executing this command, paste a public key of text format, which was created separately, from a terminal and enter "CTRL-D". The ID of public key may be a destination address of a mail specified by "set mailto". This command can be executed only when you logged in RMC through a serial port or by using ssh.</p> <p>set no public-key {key_id} Deletes a PGP public key which has the ID (a destination address of mail) specified by the argument.</p>
show public-keys		<p>show public-keys Shows the details of PGP public keys set in RMC in a text format.</p>
show key-list		<p>show key-list Shows a list of PGP public keys set in RMC.</p>
show mail		<p>show mail Shows the contents of a mail which RMC received last. Uses to check the contents of an error mail.</p>
set [no] pop-username	○	<p>set pop-username {name} {password} {server_name} Specifies a user name, password and server name to acquire mails through POP. You must not omit to describe the argument.</p> <p>set no pop-username Deletes the connection information on POP.</p>
set [no] pop-before-smtp	○	<p>set pop-before-smtp [M] Acquires mails through POP before sending a mail. The argument N specifies a period in units of second from the acquisition of a mail through POP to the next mail transmission. The range of the argument N is 1 to 5. If this argument is omitted, a default value "1" is set.</p> <p>set no pop-before-smtp Does not performs authentication through POP before mail transmission. (This is a default setting.)</p>

Command	Privileged Mode	Description
mail-pop (Supported from Ver2.1)	○	mail-pop Acquires mails through POP. You need to set mail account information for POP by “set pop-username” in advance.
set [no] pop-interval	○	set pop-interval {N} Acquires mail through POP at intervals of N minutes. A value in a range between 5 and 1500 can be specified as an argument. If “set pop-before-smtp” is set, whether a setting of this command is enabled or not, or regardless of set intervals, mail acquisition through POP is executed at mail transmission. set no pop-interval Stops acquiring mails through POP. (This is default setting.)
mail-test (Changed at Ver2.1)		mail-test [setupinfo] {ml0 ml1...ml7} Sends a test mail to a mail port specified by the argument. This mail can be sent even when the electronic mail service is disabled. If “setupinfo” is set as the first argument, the “Setup information” is sent instead of the test mail.
set [no] mail-subject (Supported from Ver2.2)	○	set mail-subject {keep-alive network-info operation-log rmc-message setup-info target-message target-responds target-not-respond} [text] Customizes mail subject from RMC. Type of mail subject is specified by the first argument. User defined mail subject string is specified by the second argument. (Refer to “20 .List of Mail Subjects” and “21 .Mail Subject Customization” for more detail.) set no mail-subject {keep-alive network-info operation-log rmc-message setup-info target-message target-responds target-not-respond} Cancels mail subject customization and uses default subject. (Refer to “21 . Mail Subject Customization” for default subject string.)

5. Local Commands for Electronic Mail Port

When executing the commands below, execute the “set port” command to select the mail ports (ml0, ml1) in advance.

Command	Privileged Mode	Description
hook [no]		<p>hook {[!f]0...[!f]7} {[!f]0...[!f]7}...</p> <p><u>This command is for maintaining compatibility with Ver. 2.0 or older versions. It is advisable to specify a filter with the “spy” command for Ver. 2.1 or later versions.</u></p> <p>Specifies a filter used in a current mail port. If several filters are specified, a character string which matches all the filters is sent. If a filter name begins with “!”, a character string which does not match the filter is sent.</p> <p>hook no</p> <p> Cancels a filter specified for a current mail port.</p>
set [no] mailto		<p>set mailto { <i>mail_address</i> }</p> <p>Sets a destination address of a main in a current mail port.</p> <p>set no mailto</p> <p>Deletes a destination address set in a current mail port.</p>
set [no] errors-to		<p>set errors-to {<i>mail_address</i>}</p> <p>Sets a destination address of an error mail. By default, no destination address is set.</p> <p>set no errors-to</p> <p>Deletes a destination address of an error mail.</p>
set [no] inactivity-timer		<p>set inactivity-timer {<i>N</i>}</p> <p>If the number of characters output from a target device is less than a value specified by “max-nmr-of-chars”, a mail is sent unless the next output is made within N second(s) set by this timer value. A default setting is 10 second.</p> <p>set no inactivity-timer</p> <p>Cancels a timer setting for a current mail port. Any mail is not sent until the number of characters output from a target device reaches a value specified by “max-nmr-of-chars”. (This is the same as “set inactivity-timer 0”.)</p>

Command	Privileged Mode	Description
set [no] mail-encryption		<p>set mail-encryption [res] Performs the PGP encryption to the contents of mail sent from a current mail port if any argument is not specified. To encrypt a mail, execute "set public-key" to set the PGP public key of which ID is a mail address.</p> <p>If the argument "res" is specified, Routrek's own encryption method (RES: Routrek Encryption Scheme) is used to encrypt the mails exchanged with RMS (RouteMagic Server). Routrek's own encryption method is enabled only in the mail port ml0. In this case, the mail address of RMS must be set and any mail can be received directly from RMS without using POP.</p> <p>set no mail-encryption Does not encrypt any mail sent from a current mail port. This is a default setting.</p>
set max-nmr-of-chars		<p>set max-nmr-of-chars {N} Specifies the maximum number (N) of characters per mail sent from a current port. A default value is 64,000.</p>
set max-nmr-of-lines		<p>set max-nmr-of-lines {N} Specifies the maximum number (N) of lines per mail sent from a current port. A default value is 10,000.</p>

6 . IP Service Commands

Command	Privileged Mode	Description
set [no] access-list (Changed at Ver3.0)		<p>set access-list {allow deny} {smtp snmp ssh telnet tftp connect-port all} {IP_address/mask}[,IP_address/mask]}</p> <p>Restricts access to RMC at the TCP/IP level. The arguments “allow” and “deny” mean to permit and to prohibit the access, respectively. Specify any of “smtp” (mail), “snmp”, “ssh”, “telnet”, and “tftp” as a target protocol.</p> <p>To specify the IP address, for example, describe “192.168.0.1” or “192.168.0.0/24” (i.e., 192.168.0.*). To specify several addresses, describe those address and separate them by a comma (,) without inserting any space between them. To permit or prohibit the access to all the IP addresses, specify “0.0.0.0”.</p> <p>If neither permission nor prohibition of access is set, the access is permitted. (This is a default setting.)</p> <p>set no access-list {allow deny} {smtp snmp ssh telnet tftp connect-port all } {IP_address/mask}[,IP_address/mask]}</p> <p>Deletes specified permission/prohibition of access from an access restriction list.</p>
show access-list		<p>show access-list</p> <p>Shows an access restriction list.</p>
set arp		<p>set arp {xx.xx.xx.xx}{yy.yy.yy.yy.yy}</p> <p>Adds an ARP entry. Describe the IP address and MAC address as the first argument and the second argument, respectively.</p>
show arp		<p>show arp</p> <p>Shows the current ARP cache.</p>
clear arp		<p>clear arp {xx.xx.xx.xx}</p> <p>Deletes an ARP entry of a specified IP address.</p>
set connect-port (Supported from Ver3.0)		<p>set connect-port [port_number]</p> <p>Assigns telnet port to serial port for direct connection. For example if port 6001 is specified, telnet to port 6001 directory connects to com1, telnet to port 6002 to com2. If no argument is specified, port 2001 is used by default.</p> <p>set no connect-port</p> <p>Cancel assignment of telnet port to serial port. (By default “set no connect-port” is enabled)</p>

Command	Privileged Mode	Description
set [no] domain-name		set domain-name {domain_name} Sets a domain name of RMC itself. set no domain-name Cancels the setting of domain name.
set hostname		set hostname {hostname} Sets a host name of RMC itself.
show hostname		show hostname Shows a host name and domain name of RMC itself.
set [no] hosts		set hosts {hostname} {xx.xx.xx.xx} Sets a conversion table for host name and IP address just in case of unusable DNS. set no hosts {hostname} Deletes a specified host name form a conversion table.
show hosts		show hosts Shows a conversion table for host name and IP address.
set [no] name-servers		set name-servers {xx.xx.xx.xx}[yy.yy.yy.yy] Specifies an IP address of the primary (xx.xx.xx.xx) name server and secondary (yy.yy.yy.yy) name server. set no name-servers {xx.xx.xx.xx} Deletes a name server of a specified address.
set [no] ntp-server		set ntp-server {ntp_server} Specifies a name of NTP server to set the RMC system clock periodically. When it has been specified, the NTP server is accessed and the system clock is set. set no ntp-server Deletes a NTP server setting.
set snmp-community (Supported from Ver2.1)	○	set snmp-community {community} Enables an access with snmp and, at the same time, sets a community name. A host which can access can permit or restrict an access by the "setaccess-list" command. set no snmp-community Disables an access with snmp.
set snmp-traps (Supported from Ver2.1)	○	set snmp-traps {host_name} {community} Starts sending a snmp trap and sets a host name at trap destination and a trap community name. set no snmp-traps Stops sending a snmp trap.
show tcp		show tcp Shows the status of current TCP connection.

7. Commands for SSH (Secure SHell)

ssh クライアント機能 ("ssh" コマンド) に関しては、「9 .」参照。

Command	Privileged Mode	Description
set ssh-protocol		set ssh-protocol {ssh1 ssh2}... Specifies ssh protocol(s) for connection. Two argument can be described. Both protocols are enabled by default.
set ssh-authentication		set ssh-authentication {password public-key}... Specifies the ssh authentication method. Two arguments can be described, i.e., "password" for password authentication and "public-key" for public key authentication. Both authentication methods are specified by default.
set [no] ssh-public-key		set ssh-public-key Sets a public key for ssh authentication. After executing this command, paste a ssh public key of text format, which was created separately, from a terminal and enter "CTRL-D". This command can be executed only when you logged in RMC through a serial port or by using ssh. set no ssh-public-key {key_id} Deletes a ssh public key which has the ID (a comment given to the public key) specified by the argument.
show ssh-public-keys		show ssh-public-keys Shows the details of ssh public keys set in RMC in a text format.
show ssh-key-list		show ssh-key-list Shows a list of ssh public keys set in RMC.
show ssh-hostkey		show ssh-hostkey Shows a ssh host key of RMC.

8. Command for Customization of Target Device

Command	Privileged Mode	Description
set [no] user-target-type (Supported from Ver2.1)		set user-target-type {target_type} Allows a user to define a new type of target device. Any character string can be specified as an argument (e.g., "unix-server"). A device type must be defined before executing the commands below for customization. A type of device connected to each com port can be set by specifying the device type, which has been defined this command, by the "set target-type" command. set no user-target-type {target_type} Deletes a target device type defined by a user.
set [no] target-filter (Supported from Ver3.5)		set target-filter {target_type} {tfl config} Allows a user to define a filter for a specified device. A maximum of eight filters "tfl0" to "tfl7" can be specified per device type. After the command is executed, enter a filter in a awk program format and quit the entry with "CTRL-D". To enable the filter, the "spy" command (set spy comN tflN mIN) must be executed separately. For a filter for the device type "cisco", "tfl0" is reserved for communication with RMS and it must not be changed. set no target-filter {target_type} {tfl config} Deletes a filter for a specified device.
show target-filter (Supported from Ver3.5)		show target-filter {target_type} [tfl config] Shows a filter for a specified device. If any filter is not specified, all the filters for the device are shown.
set [no] target-script (Supported from Ver2.1)		set target-script {target_type} {command login network-info target-check} Allows a user to define a script for a device specified by the argument. After the command is executed, enter a script and quit the entry with "CTRL-D". For the specifications for script, refer to applicable information. Available scripts are as follows: "command" - A script to execute a routine command from RMS. "login" - A script to log in a target device. "network-info" - A script to acquire network information. "target-check" - A script to check whether a target device is enabled. (If this argument is specified, the status of serial signal line is examined to check whether a target device is enabled.) For a script for the device type "cisco", the "network-info" script only can be set. set no target script {target_type} {command login network-info target-check} Deletes a script for a specified device.

Command	Privileged Mode	Description
show target-script (Supported from Ver2.1)		show target-script {target_type} [command login network-info target-check] Shows a script for a specified device. If any script is not specified, all the scripts for the device are shown.
script-test (Changed at Ver2.1)		script-test {com/N} {command login network-info target-check} Try to execute a script to a specified port as a test. The operating status of the script and the details of serial I/O at the execution are shown. Before executing this command, execute "set target-type" in advance to specify a type of target device connected to a COM port. If a device type of a specified COM port is "cisco", this command cannot be executed.
filter-test (Supported from Ver3.5)		filter-test {target_type} {tfl config} Test a filter specified by the argument. After executing this command, enter a character string to be tested and press the [Enter] key. Then, a filtered character string is shown after ">". Several lines can be tested. To quit the test, press "Ctrl-D" at the beginning of a line.
target-test (Supported from Ver3.0)		target-test {com/N} [target-check target-ping-check network-info] Performs actual target-check and network-info function to a specified port. Result is also mailed.

9. Tools Command

Command	Privileged Mode	Description
host		host {host_name} Searches a specified host name using a DNS server.
ping		ping {host_name} Try to connect to a specified host as a test.
tracert		tracert {host_name} Examine routing to a specified.
ppp-on		ppp-on Start the ppp connection. (A command to test the ppp connection.)
ppp-off		ppp-off Quit the ppp connection. (A command to test the ppp connection.)
telnet (Supported from Ver3.0)		telnet {host_name} [port] Opens telnet connection from RMC to specified host. By default the telnet function is disabled. To enable the function "set options client=telnet" command is required. To close telnet connection enter escape-character('ctrl - ') followed by 'e'.
ssh (Supported from Ver3.0)		ssh [-2dv] {[user@] host_name } [port] Opens SSH connections from RMC to specified host. Add "-2" option for SSH2 protocol, "-d" option for deleting host public key stored in RMC, "-v" option for verbose mode. Only password authentication is supported by the SSH client. By default the SSH function is disabled. To enable the function "set client=ssh" command is required. To close SSH connection enter escape-character('~') followed by '!'.

10 . Commands for RouteMagic Power Management(RPM)

Command	Privileged Mode	Description
set target-type rpm (Supported from Ver3.5)		<p>set target-type rpm</p> <p>Specifies RPM(Routrek Power Management) as a device for current serial port.</p> <p>* The command is a local command for serial port.</p>
set [no] pmport (Supported from Ver3.5)		<p>set pmport {comN} {outlet#} [outlet#]...</p> <p>Assigns a power management and its outlet for a device of current serial port.</p> <p>Argument "comN" is a serial port that the power management is connected. Multiple "outlet#" can be specified</p> <p>* The command is a local command for serial port.</p> <p>set no pmport</p> <p>Cancels assignment of power management for a device of current serial port.</p>
target-power (Supported from Ver3.5)		<p>target-power {comN} {on off reboot status}</p> <p>Changes status of power management. Argment "comN" is a serial port of a device to change power status.</p>

11 . Port Name List

Port Name	Description
com1, com2, ...	Serial ports (COM1 port, COM2 port, ...) MP200 has the serial ports COM1 to COM2 and MP1200 has COM1 to COM12.
coma, comb	The COMA port is only for a serial console and the COMB port is only for a modem. Any target device cannot be connected to those ports. MP1200 only has those ports.
ml0,ml1, ...	Mail ports. MP200 has the mail ports ml0 to ml7 and MP1200 has ml0 to ml15.
eth0, eth1	Ethernet ports. (MP200 has the Ethernet port eth0 only.)
rmc	A virtual port which means output of the RMC setup information and "keep-alive" message. Such information and message are sent to a mail port specified by "set spy rmc <mail port>".
target1, target2,...	A virtual port which means output of the network information, information on check whether a target device is enabled, and operation log of a target device connected to com1, com2, ... Such information and log are sent to a mail port specified by "set spy targetN <mail port>".
terminal (Supported from Ver2.1)	A log-in terminal. When "set spy com1 terminal" is executed, input of com1 is shown on the log-in terminal.

Port which can be specified as an argument when executing "connect"

Port Name	Description
com1, com2, ...	Serial ports (COM1 port, COM2 port, ...) MP200 has the serial ports COM1 to COM2 and MP1200 has COM1 to COM12.

Port which can be specified as an argument when executing "set port"

Port Name	Description
com1, com2, ...	Serial ports (COM1 port, COM2 port, ...) MP200 has the serial ports COM1 to COM2 and MP1200 has COM1 to COM12.
coma, comb	The COMA port is only for a serial console and the COMB port is only for a modem. MP1200 only has those ports.
ml0,ml1, ...	Mail ports. MP200 has the mail ports ml0 to ml7 and MP1200 has ml0 to ml15. ml0 is only for communication with RMS when RMS (RouteMagic Server) is used.
eth0, eth1	Ethernet port. (MP200 has the Ethernet port eth0 only.)

Port which can be specified as an argument when executing “show port”

Port Name	Description
com1, com2, ...	Serial ports (COM1 port, COM2 port, ...) MP200 has the serial ports COM1 to COM2 and MP1200 has COM1 to COM12.
coma, comb	The COMA port is only for a serial console and the COMB port is only for a modem. Any target device cannot be connected to those ports. MP1200 only has those ports.
ml0, ml1, ...	Mail ports. MP200 has the mail ports ml0 to ml7 and MP1200 has ml0 to ml15. ml0 is only for communication with RMS when RMS (RouteMagic Server) is used.
eth0, eth1	Ethernet port. (MP200 has the Ethernet port eth0 only.)

Port/filter which can be specified as an argument when executing “set spy”

Connected From	Filter	Connected To	Description
com1, com2, ...	tf10 ~ tf17	ml0, ml1...	Used to send input of a com port to a mail port. A filter tfIN can be specified as the second argument. Related command: set target-filter
com1, com2, ...	tf10 ~ tf17	com1, com2...	Used to send input of a com port to another com port. A filter tfIN can be specified as the second argument. Related command: set target-filter
com1, com2, ...		terminal	Used to show input from a com port in a terminal.
rmc		ml0, ml1...	Specifies a mail port to send the setting information and “keep-alive” information about RMC. Related command: set keep-alive-time
target1, target2, ...		ml0, ml1...	Specifies a mail port to send various items of information about the target devices connected to com1, com2, ... Related commands: set network-info-time, set target-check, set connect-log

12 . Option Parameter List

List of parameters specified by “set options” command

Parameter	Description
autohalt	Shuts down RMC by itself when the temperature exceeds 70C. (MP1200 only)
autoreload	Restarts RMC when unrecoverable internal error occurs (Default OFF)
client=telnet,ssh	Enables telnet/ssh client function.
disp=noip	Disables IP address display on LED/LCD.
linemax=[100-950]	Sets maximum number of characters by line of mail (250 characters by default).
mlcharset=iso2022	Sets encoding of mail body to ISO2022(JIS).
pppinterval=<0-9999>	Sets PPP dialup minimum interval (300 seconds by default)
pppmail	Always send mail via PPP connection.
pppretry=<0-9>[,<0-99>]	Sets PPP retry count and interval
swlock	Disables function switch of RMC *

* If you disable the function switch, don't forget password to login. You have no recovery method.

13 . List of Key Operations When Entering Command

Key	Function
Enter	Executes an entered command. If you press the [Enter] when a part of command has entered, the command is corrected automatically and executed. Example: If "show run" is entered and the [Enter] key pressed, "show running-config" is executed. If a part of command matches several commands, those commands are listed.
Ctrl - I Tab	Corrects a part of entered command and shows the command completely. (Any argument cannot be corrected.) Example: If you enter "ena" and press the [Tab] key, "enable" is shown. (The "enable" command is not executed.)
?	Simplified HELP message is shown. If you enter a part of command and press the [?] key, the applicable commands are shown. Example: If you enter "set ?", simplified HELP messages for all the commands beginning with "set" are shown.
Ctrl - B,	Moves a cursor to the left.
Ctrl - F,	Moves a cursor to the right.
Ctrl - A	Moves a cursor to the beginning of the line.
Ctrl - E	Moves a cursor to the end of the line.
Ctrl - D	Deletes one character at the cursor position.
Ctrl - H BackSpace	Deletes one character at the left side of the cursor position.
Ctrl - K	Deletes the characters from the cursor position to the end of the line.
Ctrl - C (Supported from Ver2.1)	Cancels the entry.
Ctrl - U	Deletes all the entered lines.
Ctrl - P,	Shows the history (of executed commands) from the present to the past.
Ctrl - N,	Shows the history (of executed commands) from the past to the present.
Ctrl - Z (Supported from Ver2.1)	Cancels the designation of a current port.



14. Key Operations List of Pager

Key	Function
g, <	Jump to the line number (default: top of the file)
G, >	Jump to the line number (default: bottom of the file)
p	Jump to the percentage position in line numbers (0 - 100)
b, Ctrl - b	Previous page
u, Ctrl - u	Previous half page
k, Ctrl - k, y, Ctrl - y, Ctrl - p	Previous line
j, Ctrl - j, e, Ctrl - e, Ctrl - n, CR	Next line
d, Ctrl - d	Next half page
f, Ctrl - f, Ctrl - v, SP	Next page
/<string>	Find a string in the forward direction (regular expression)
?<string>	Find a string in the backward direction (regular expression)
n	Repeat previous search in forward direction
N	Repeat previous search in backward direction.
q, Q	Quit

15 . Escape Character List of “connect”

Character	Action
x	Disconnect and back to RMC shell
b	Send a “BREAK” signal
?	Show this help
t	Transparent mode (Disables the escape character function. BREAK to back to normal mode)
Ctrl- \	Send the escape character itself to the device
Other Character	Send the character itself

16. List of System Set Values

Item		Default Value (工場出荷時)	Corresponding command	
Restriction of access at TCP/IP level		Enables all the accesses.	set access-list	
Escape character		 	set escape-character	
RMC log-in timeout		Three minutes	set exec-timeout	
RMC log-in password		Nil	set password	
RMC privileged mode password		Nil	set enable-password	
Target device log-in password		Nil	set target-login-password	
Target device privileged mode password		Nil	set target-enable-password	
Serial port I/O (com1 ~ com12 comA , comB)	Number of bits	8bits	set csize	
	Parity	none	set parity	
	Baud rate	9600 bps (38400 bps for comb only)	set speed	
	Stop bit	1 bit	set stopbits	
	Flow control	none(Hardware for comb only)	set flowcontrol	
Use of DHCP		Uses DHCP. (eth0 only)	set dhcp	
IP address, netmask, default gateway		eth 0	No default setting. (Uses DHCP.)	set address
		eth 1	No default setting	
Ethernet speed setting		auto (Automatic setting))	set speed	
Broadcast address		No default setting	set broadcast-address	
Electronic mail service		No transmission	set mail-service	
Electronic mail port setting (ml0 ~)	Mail address	No default setting 1	set mailto	
	Error mail address	No default setting	set errors-to	
	Maximum length of mail	64,000 characters, 10,000 lines	set max-nmr-of-chars set max-nmr-of-lines	
	Transmission timer	10 seconds	set inactivity-timer	
	Encryption	No encryption	set mail-encryption	
	Applicable filter	No default setting 2	hook	
Filter setting 2	fl0 (For RMS)	%[-a-zA-Z0-9_]*-[0-7]	set filter-list	
	fl1 (Urgency: High)	%[-a-zA-Z0-9_]*-[0-2]		
	fl2 (Urgency: Middle)	%[-a-zA-Z0-9_]*-[3-5]		
	fl3 (Urgency: Low)	%[-a-zA-Z0-9_]*-[6-7]		
	fl4 ~ fl7	No default setting		

Item	Default Value (工場出荷時)	Corresponding command
Authentication of received mail from RMS	Authenticates the mail.	set mail-certification
Domain name of "From" of transmitted mail	No default setting ([IP address])	set mail-origin
Domain name of "From" of transmitted mail	No default setting	set mail-relayhost
POP mail acquisition intervals	No acquisition (Receiving directly)	set pop-interval
POP mail acquisition before sending mail	No acquisition	set pop-before-smtp
Port connection	set spy rmc ml0, 3 set spy target1,2... ml0	set spy
"keep-alive" transmission time	Time specific to each RMC	set keep-alive-time
Network information transmission time	No default setting (No transmission)	set network-info-time
Check whether target device is enabled	No check	set target-check
Transmission of operation log of target device	No transmission	set connect-log
RMC domain name	No default setting (Uses DHCP)	set domain-name
RMC user name	rmc	set user-name
RMC host name	myrmc	set hostname
Name server address	No default setting (Uses DHCP)	set name-servers
NTP time synchronization server name	No default setting	set ntp-server
SNMP agent	Not start by default	set snmp-community
SNMP trap	Disabled by default	set snmp-trap
ssh protocol	SSH1, SSH2 protocol	set ssh-protocol
ssh authentication system	Password/public key authentication	set ssh-authentication
Confirmation of critical command execution	Confirms 4	set prompt
Screen display paging	Performs paging. A screen size is acquired automatically.	set terminal
Language/character code of message	English (ASCII)	set lang
Timezone	JST (Japan Standard Time)	set timezone

- 1 A mail address of RMS is set in ml0 when RMS (RouteMagic Server) is used.
- 2 Setting for maintaining compatibility with Ver. 2.0 or older versions. Do not change usually.
- 3 Do not delete it when RMS is used.
- 4 It is always initialized to a default value at log-in.

17. List of Supported Device Types

装置名	target-type 名
Cisco Route / Switch	cisco (default)
Extreme	extreme
Foundry	foundry
NEC IP8800	ip8800
Juniper	juniper
NetScreen	netscreen
RouteMagic Power Management	rpm
Solaris8	solaris
Windows NT (1)	windows
YamahaRT	yamaha-rt

1 “RouteMagic Agent for Windows” is required

18 . List of Filter/Script for Cisco

Item		Default Value (工場出荷時)	Corresponding command
Filter setting 2	tfl0 (Severity: All / For RMS)	%[-a-zA-Z0-9_]*-[0-7]	set target-filter cisco tflN
	tfl1 (Severity: High)	%[-a-zA-Z0-9_]*-[0-2]	
	tfl2 (Severity: Middle)	%[-a-zA-Z0-9_]*-[3-5]	
	tfl3 (Severity: Low)	%[-a-zA-Z0-9_]*-[6-7]	
	tfl4 ~ tfl7	No default setting	
	config	Filters contents of "show config" result	set target-filter cisco config
Script setting	network-info	show version enable 2 show config 2 write terminal 2 show interface show stack show buffers show controllers show process show ip route 2 show ip traffic show ip interface disable	set target-script cisco network-info

- 1 Do not delete this filter when RMS (RouteMagic Server) is used. "set spy comN tfl0 ml0" must be set.RMS (RouteMagic Server) .
- 2 Do not delete these commands when RMS is used.

19. List of Timezones Supported by RMC

Argument	Timezone
CST6CDT	Central Daylight Time
EST5EDT	Eastern Standard Time
JST	Japan Standard Time (Default setting)
KST	Korea Standard Time
MST7MDT	Mountain Standard Time
PST8PDT	Pacific Standard Time
UCT	Universal Coordinated Time
GMT	Greenwich Mean Time
GMT \pm N	Specifies time difference from Greenwich Mean Time

20 . List of Mail Subjects from RMC

The e-mail subjects below are sent from RMC. And these subjects can be customized by the “set mail-subject” command. Refer to “21 . Mail Subject Customization” for detail.

Mail Subject	Description
Target message	A console message of target device. A result of execution of “spy” to a com port is sent. (If any filter is set, a filtered result only is sent.)
RMC message	RMC message. A test mail also sent by “mail-test” has this subject.
Network information	Cisco router setting information and network information acquired from a router. Sent at time specified by “set network-info-time” to a mail port specified by “set spy targetN mIN”
Target operation log	An operation log of target device. Enabled when “set connct-log” is executed. An operation log during the execution of “connect comN” is sent to a mail port specified by “set spy targetN mIN”.
Target not respond	Notice that a target device does not send back any response. (If you cannot log in the target device due to password error, that is regarded as non-response.) Enabled when “set target-check” is executed. Sent to a mail port specified by “set spy targetN mIN”.
Target responds	Notice that a target device has recovered from non-response. Sent to a mail port specified by “set spy targetN mIN”.
RMC keep-alive	Information whether RMC is enabled. (“keep-alive” information) Sent to a mail port specified by “set spy rmc mIN” at time specified by “set keep-alive-time” or at the execution of “set [no] keep-alive-time” command.
Setup information	Notice of setting information on RMC and target device. Sent to a mail port specified by “set spy rmc mIN” at RMC start-up and the execution of a setting command which has influence on mailing operation.

21 . Mail Subject Customization

The following list describes the type of e-mail subjects from RMC, argument for “set mail-subject” command and default subject-string.

Mail Subject	1 st argument of set mail-subject	Default mail subject string (as 2 nd argument)
Target message	target-message	%m(%n): Target message(%c)
RMC message	rmc-message	%m(%n): RMC message
Network information	network-info	%m(%n): Network information(%c)
Target operation log	operation-log	%m(%n): Target operation log(%c)
Target not respond	target-not-respond	%m(%n):Target not respond(%c)
Target responds	target-responds	%m(%n):Target responds(%c)
RMC keep-alive	keep-alive	%m(%n): RMC keep-alive
Setup information	setup-info	%m(%n): Setup information

Variables for subject string

The following list describes variables for subject string which can be set as the 2nd argument of “set mail-subject” command.

変数名	Description
%b	String set by “set banner” command
%c	Serial port name (e.g. “com1”) Available for “Target message”, “Network information”, “Target operation log”, “Target responds” and “Target not respond” subjects.
%d	String set by “set description” command Available for “Target message”, “Network information”, “Target operation log”, “Target responds” and “Target not respond” subjects
%m	Mail port name (e.g. “ml0”)
%n	Mail count number (mail port independent)
%r	Hostname of RMC (set by “set hostname” command)

Command List

C

clear arp	18
clear log	3
connect	1
copy	1

D

disable	2
disconnect	2

E

enable	2
end	4
exit	2

F

filter-test	22
-------------------	----

H

hook [no]	16
host	23

M

mail-pop	15
mail-test	15

P

ping	23
ppp-off	23
ppp-on	23

Q

quit	2
------------	---

R

reload	2
--------------	---

S

script-test	22
set [no] target-login-password	8
set [no] access-list	18
set [no] address	12
set [no] banner	3
set [no] broadcast-address	12
set [no] connect-log	9
set [no] connect-users	9
set [no] description	7
set [no] dhcp	12
set [no] domain-name	19
set [no] errors-to	16
set [no] exec	7
set [no] exec-timeout	4
set [no] filter-list	13
set [no] hosts	19
set [no] inactivity-timer	16
set [no] keep-alive-time	13

set [no] mail-certification	13
set [no] mail-encryption	17
set [no] mail-origin	13
set [no] mail-relayhost	14
set [no] mail-service	14
set [no] mail-subject	15
set [no] mailto	16
set [no] modem	8
set [no] name-servers	19
set [no] network-info-time	9
set [no] ntp-server	19
set [no] options	4
set [no] pmpport	24
set [no] pop-before-smtp	14
set [no] pop-interval	15
set [no] pop-username	14
set [no] ppp-server	8
set [no] ppp-username	8
set [no] prompt	4
set [no] public-key	14
set [no] script	11
set [no] spy	5
set [no] ssh-public-key	20
set [no] target-check	9
set [no] target-enable-password	8
set [no] target-filter	21
set [no] target-login-name	8
set [no] target-ping-check	10
set [no] target-script	21
set [no] terminal	5
set [no] user-name	6
set [no] user-target-type	21
set arp	18
set connect-port	18
set csize	7
set date	3
set escape-character	3
set flowcontrol	7
set hostname	19
set lang	3
set max-nmr-of-chars	17
set max-nmr-of-lines	17
set parity	7
set snmp-community	19

Command List

set snmp-traps	19	show ssh-key-list	20
set speed.....	7, 12	show ssh-public-keys.....	20
set ssh-authentication	20	show target-filter	21
set ssh-protocol	20	show target-script.....	22
set stopbits.....	7	show tcp	19
set target-type.....	10	show tech-support	6
set target-type rpm.....	24	show user-names	6
set timezone	3	show users	6
show access-list.....	18	show version	6
show arp.....	18	shutdown	2
show configuration	6	ssh	23
show date	3	<i>T</i>	
show hostname	19	target-power	24
show hosts.....	19	target-test	22
show key-list	14	telnet	23
show mail.....	14	traceroute.....	23
show memory	6	<i>U</i>	
show port.....	4	upgrade	2
show public-keys.....	14	<i>W</i>	
show running-config.....	6	write erase	2
show spy	5	write log	3
show ssh-hostkey	20	write memory.....	3

Product Support

For any questions, technical support and manuals refer to the following our home page.

<http://www.routrek.co.jp/support/>

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