

# **NEC ESMPRO Manager Ver.7**

## **User's Guide**

### **Command Line Interface for NEC ExpressUpdate**

**Chapter1 About Command Line Interface**

**Chapter2 XML interface**

**Chapter3 Component management**

**Chapter4 Group management**

**Chapter5 ExpressUpdate**

**Chapter6 Log management**

**Chapter7 Troubleshooting**

**Chapter8 Terminology**

**Chapter9 Appendix**

# Contents

---

Contents.....	1
Trademarks.....	3
About This Document .....	4
Chapter1 About Command Line Interface .....	5
1.1 Overview .....	5
1.2 System Requirements .....	5
1.3 Configuring examples.....	6
1.4 Using the command line .....	7
1.4.1 Shell mode.....	7
1.4.2 One liner mode .....	9
1.4.3 XML scripting mode .....	10
1.4.4 Encrypting of the password .....	11
1.5 Basic commands .....	12
1.5.1 Target.....	14
1.5.2 Basic options .....	14
1.5.3 Specific options .....	15
1.6 Example of command output.....	16
1.7 Diagram of the entire address space .....	17
Chapter2 XML interface .....	20
2.1 Execution of XML.....	20
2.1.1 Overview .....	20
2.1.2 XML elements .....	20
2.1.3 Examples .....	21
2.1.4 Override process.....	23
2.1.5 Include process.....	24
2.2 Output XML data.....	25
2.2.1 Overview .....	25
2.2.2 XML elements .....	25
2.2.3 XML format for each basic commands .....	26
Chapter3 Component management .....	29
3.1 Component information.....	29
3.1.1 Showing a list of components.....	29
3.1.2 Showing component information .....	30
Chapter4 Group management .....	31
4.1 Group information .....	31
4.1.1 Showing a list of groupset .....	31
4.1.2 Showing information of groupset .....	32
4.1.3 Showing information of group .....	33
Chapter5 ExpressUpdate.....	35
5.1 ExpressUpdate information .....	35
5.1.1 Displaying ExpressUpdate information.....	35
5.1.2 Displaying a list of modules supporting automatic update .....	37
5.1.3 Displaying a list of modules not supporting automatic update .....	39
5.1.4 Information of module supporting automatic update .....	41
5.1.5 Information of module not supporting automatic update .....	43
5.2 Update, install and uninstall.....	45
5.2.1 Update modules supporting automatic update.....	45
5.2.2 Install commands.....	48
5.2.3 Uninstall commands .....	49
5.2.4 Cancelling update commands.....	50
5.2.5 Update modules not supporting automatic update.....	51
5.3 Repository and Update package management .....	54

5.3.1	Repository settings .....	54
5.3.2	Adding update packages to repository.....	58
5.3.3	Removing update packages from repository .....	59
5.3.4	Saving update packages.....	61
5.3.5	Update packages information .....	62
Chapter6	Log management .....	66
6.1	Logging.....	66
6.1.1	Application log list .....	66
6.1.2	Application log.....	67
6.1.3	NEC ExpressUpdate Agent log .....	68
Chapter7	Troubleshooting.....	69
7.1	Error message .....	69
Chapter8	Terminology .....	70
Chapter9	Appendix .....	71
9.1	XML Schema.....	71
9.1.1	XML Schema for request file .....	71
9.1.2	XML Schema for response file.....	74

## Trademarks

---

NEC EXPRESSBUILDER, NEC ESMPRO and EXPRESSSCOPE are registered trademarks of NEC Corporation.

Microsoft, Windows, Windows Vista, Windows Server are registered trademarks or trademarks of Microsoft Corporation in the United States and other countries.

Intel and Pentium are registered trademarks of Intel Corporation in the United States.

Xeon is registered trademarks of Intel Corporation in the United States.

Linux is registered trademarks or trademarks of Linus Torvalds in the United States and other countries.

AT is registered trademarks or trademarks of International Business Machines Corporation in the United States and other countries.

Adobe, Adobe Logo and Acrobat are registered trademarks of Adobe Systems Incorporated.

All other company, or product names used in this document are registered trademarks or trademarks of their respective trademark owners.

### ■ Notes

- (1) No part of this document may be reproduced in any form without the prior written permission of NEC Corporation.
- (2) The contents of this document may be revised without prior notice.
- (3) The contents of this document shall not be copied or altered without the prior written permission of NEC Corporation
- (4) All efforts have been made to ensure the accuracy of all information in this document. If you notice any part unclear, incorrect, or omitted in the document, contact your authorized NEC sales representative.
- (5) NEC assumes no liability for damages arising from the use of this product, nor any liability for incidental or consequential damages arising from the use of this document regardless of (4)

## About This Document

---

This document introduces command line interface of NEC ExpressUpdate. It is a function of the component management utility "NEC ESMPRO Manager".

Before attempting to operate the command line interface, read this document so as to gain an adequate understanding of the contents.

### ■ Attention

This document is intended for persons who are familiar with the operating system's functions and operations and the network's functions and setup. For operations and inquiries about the operating system, see its online help information.

This document covers universal information about generally managed components. The notes and restrictions on use of each product as a managed component are explained in the user's guide provided with the managed component.

Names used with screen images in this document are fictitious. They are unrelated to existing product names, names of organizations, or individual names. The setting values on the screen images are shown as examples, so setting values such as IP addresses on screen images are not guaranteed for operation.

### ■ About Symbols in This Document

The following explains three symbols that are used in this document:

IMPORTANT:	Points that are mandatory or require attention when using the software or the component.
CHECK:	Points that are require confirmation when using the software or the component.
TIP:	Helpful and convenient piece of information.

### ■ About Font in This Document

The *Italic* font shows the option of command in this document.

### ■ For other information about the NEC ESMPRO Manager

See the documents below.

NEC ESMPRO Manager Ver.7 Installation Guide  
NEC ESMPRO Manager Ver.7 Setup Guide  
NEC ESMPRO Manager Ver.7 Command Line Interface  
NEC ESMPRO Manager Ver.7 User's Guide RESTful API Reference

# Chapter1 About Command Line Interface

---

## 1.1 Overview

This document provides information about a Command Line Interface to NEC ExpressUpdate. All ExpressUpdate command-line operations, except those for iLO devices, are executed using the 'esmcli' command. ExpressUpdate functions for iLO devices are not covered by this command-line interface.

.....  
**IMPORTANT:**

- 'esmcli' command does not have a function to registering a component to NEC ESMPRO Manager. In case of registering a component, please use NEC ESMPRO Manager's Web interface.
  - In case of CLI, following characters are not available in group name.  
" ¥ < > & “ ( ) ^"
  - Using NEC ExpressUpdate, "Updates via NEC ExpressUpdate Agent" or "Updates via Management controller" of the component must be enabled.
- .....

## 1.2 System Requirements

Supported OS conforms to NEC ESMPRO Manager.

NEC ESMPRO Manager command line interface requires following user level of operating system:  
Administrator

.....  
**CHECK:**

- You need to set the permission to access to the directory including Command Line Interface execution file (esmcli.exe). After setting the permission, the standard user can also use Command Line Interface.
- .....

.....  
**TIP:**

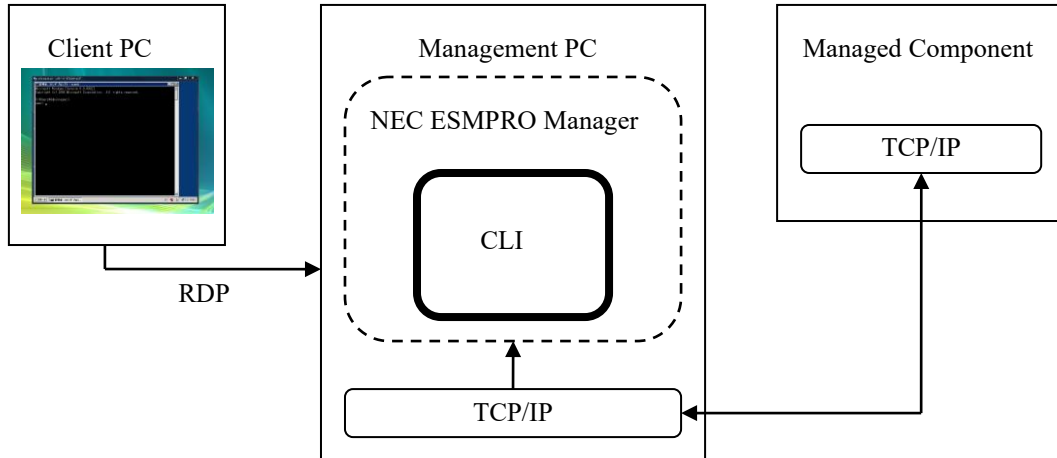
- See "NEC ESMPRO Manager Ver.7 Installation Guide" for information about system requirements of NEC ESMPRO Manager.
- .....

### 1.3 Configuring examples

When the client PC is different from the management PC, log in to the management PC using remote desktop.

#### Examples

When NEC ESMPRO Manager is installed on Windows environments



## 1.4 Using the command line

All commands in this document are executed by 'esmcli' command. When you install NEC ESMPRO Manager, 'esmcli' command is also installed on the following directories.

C:\Program Files\ESMPRO\ESMSM\bin

This path is added to the system environment variable "PATH".

.....  
**CHECK:**

- The Windows path varies if NEC ESMPRO Manager is not installed in the default location.
- .....

'esmcli' has two mode, interactive "shell mode" and non-interactive "one liner mode".

### 1.4.1 Shell mode

In this mode, you can execute CLI commands interactively.

#### 1.4.1.1 Logging in to the shell mode

To start the shell mode, enter the following command from a command line. Then input a user name and password of NEC ESMPRO Manager.

Please refer to "1.5Basic commands" for information about CLI commands.

esmcli *[Option]*

esmcli	The NEC ESMPRO Manager command line interface command
Option	<p>Input an option. There are following options.</p> <p><i>-h</i>   <i>-help</i>            Display the syntax of esmcli commands.            When this option is specified, the shell mode does not start.</p> <p><i>-u</i>   <i>-user &lt;user name&gt;</i>            Specifies an user name of NEC ESMPRO Manager.            At the time of login, the input of the user name is omitted.</p> <p><i>-p</i>   <i>-pswd &lt;password&gt;</i>            Specifies an user password of NEC ESMPRO Manager.            At the time of login, the input of the user password is omitted.</p>

.....  
**TIP:**

- The password at the time of the login can input the password that encrypted in "1.4.4Encrypting of the password".
- .....

#### Examples

If username and password are not specified at command line options, enter them at following prompts.

```
> esmcli
user:
passwd:
```

#### Examples

When you specify the user name and the password at command line, please input as follows.

```
esmcli -u Administrator -p password
```

#### Examples

When you specify the encrypted password, please input as follows. See 1.4.4Encrypting of the password.

```
esmcli -u Administrator -p {ENC}c10f239c9f7d203fa4424bffb06b6713
```

When the log in is successful, 'esmcli' prompt is displayed.

```
NEC ESMPRO Manager Version6
Copyright (C) 2004-2015 NEC Corporation. All Rights Reserved.
```

```
->
```

#### 1.4.1.2 Logging out of the shell mode

To exit the shell mode, enter the exit command or input Ctrl + C.

```
-> exit
```

#### 1.4.1.3 Keyboard Shortcuts

This section describes keyboard shortcuts list.

**Table 1-1 Keyboard Shortcuts**

<b>Keyboard Shortcuts</b>	<b>Description</b>
Enter	Decision.
BackSpace	Erase one character.
Tab	Autocompletes from the cursor position.
←	Moves the cursor backward one character.
→	Moves the cursor forward one character.
↑	Recalls the prior command.
↓	Recalls the next command.
Ctrl + B	Moves the cursor backward one character. (equivalent to the key "←")
Ctrl + F	Moves the cursor forward one character. (equivalent to the key "→")
Ctrl + A	Moves the cursor to the line start.
Ctrl + E	Moves the cursor to the line end.
Ctrl + G	Move the cursor to the top of the word before one. Because there are space and hyphen ("-") and directory separator ("/"or"¥"), the word is discerned.
Ctrl + P	Recalls the prior command. (equivalent to the key "↑")
Ctrl + N	Recalls the next command. (equivalent to the key "↓")
Ctrl + I	Autocompletes from the cursor position. (equivalent to the key "Tab")
Ctrl + V	Paste. (Supported only in Windows OS.)
Ctrl + J	Decision. (equivalent to the key "Enter")
Ctrl + M	Decision. (equivalent to the key "Enter")
Ctrl + H	Erase one character. (equivalent to the key "BackSpace")
Ctrl + K	Delete the line after the cursor position.
Ctrl + U	Delete the line before the cursor position.
Ctrl + W	Delete all the letters from the cursor to the directory separator before one.
Ctrl + D	When there is an input, delete one character of the position of the cursor. When there is not an input, finish the shell mode.
Ctrl + C	Finish the shell mode.

## 1.4.2 One liner mode

The one liner mode executes only specified CLI command without starting the shell function of esmcli. To execute the one liner mode, enter a CLI command following to a username and password from a command line as shown below. And please input user name and password of NEC ESMPRO Manager. Please refer to "1.5Basic commands" for the CLI command to execute.

```
esmcli [Option] '{CLI Command}'
```

esmcli	Indicates the NEC ESMPRO Manager command line interface command
Option	Input an option. There are following types of option. <i>-h   -help</i> Display the command syntax of the esmcli command. When this option is appointed, the shell mode does not start. <i>-u   -user &lt;user name&gt;</i> Input user name of NEC ESMPRO Manager. At the time of login, the input of the user name is omitted. <i>-p   -pswd &lt;password&gt;</i> Input user password of NEC ESMPRO Manager. At the time of login, the input of the user password is omitted.
'{CLI Command}'	Surround the CLI command to execute with '.

.....  
**TIP:**

- The password at the time of the login can input the password that encrypted in "1.4.4Encrypting of the password".
- .....

### Examples

Following command enables you to execute 'show /' command.

```
esmcli -u Administrator -p password 'show /'
```

### Examples

Using an encrypted password, please input it as follows.

```
esmcli -u Administrator -p {ENC}c10f239c9f7d203fa4424bffb06b6713 'show /'
```

### 1.4.2.1 Notes on executing one liner mode

(1) When entering special characters

When input double quotation (") in CLI command, please set ¥ before double quotation.

The following shows examples.

```
esmcli 'show /cmps/¥"server 01¥"/map/expup'
```

### 1.4.3 XML scripting mode

XML scripting mode enables you to write esmcli commands and some arguments in an XML file and execute it. To obtain the information of XML format, refer to "9.1.1 XML Schema for request file".

```
esmcli -f <XML file name> [Option]
```

esmcli	Indicates the NEC ESMPRO Manager command line interface command
<XML file name>	Specifies XML file in which esmcli commands are written.
Option	<p>Input an option. There are following types of option.</p> <p><i>-h   -help</i> Display the command syntax of the esmcli command. When this option is appointed, the shell mode does not start.</p> <p><i>-u   -user &lt;user name&gt;</i> Input user name of NEC ESMPRO Manager. At the time of login, the input of the user name is omitted.</p> <p><i>-p   -pswd &lt;password&gt;</i> Input user password of NEC ESMPRO Manager. At the time of login, the input of the user password is omitted.</p> <p><i>-x   examine</i> Validate contents of XML file but not to execute it.</p> <p><i>-override &lt;Name&gt;=&lt;Value&gt;</i> Replaces the value of XML element whose name equals &lt;Name&gt; with &lt;Value&gt;. To obtain more information, refer to "2.1.4 Override process".</p>

.....  
**TIP:**

- The password at the time of the login can input the password that encrypted in "1.4.4 Encrypting of the password".
- .....

#### Examples

Following command enables you to execute sample.xml.

```
esmcli -f sample.xml -u Administrator -p password
```

#### Examples

Using an encrypted password, please input it as follows.

```
esmcli -f sample.xml -u Administrator -p {ENC}c10f239c9f7d203fa4424bffb06b6713
```

### 1.4.4 Encrypting of the password

The esmclipasswd command is used for encrypting of the password.

To encrypt the password, enter the command following the command prompt as shown below.

```
esmclipasswd [Option] <Password>
```

esmclipasswd	Indicates the NEC ESMPRO Manager command line interface command
Option	Input an option. There are following types of option. <i>-h</i>   <i>-help</i> Display the command syntax of the esmclipasswd command. When this option is appointed, the password doesn't encrypt.
<Password>	Input a password to encrypt.

#### Examples

When you encrypt the password, please input it as follows.

```
>esmclipasswd password  
{ENC}c10f239c9f7d203fa4424bffb06b6713
```

The encrypted password is displayed on the screen.

## 1.5 Basic commands

This section describes basic commands. These basic commands are based on SMASH style proposed by DMTF (Distributed Management Task Force).

Help string, command syntax, of each command appears when "-h | -help" option is specified as the <options> of the command. The argument placed between "[" and "]" is omissible.

.....  
**TIP:**

- In the case of the user authority is Administrator, the user can execute all basic commands.
  - In the case of the user authority is Operator, the user can execute cd, exit, help and show commands. Other commands become executable by setting of the user level. The details please identify a chapter of each operation.
  - help, cd, exit and show commands are supported at all of targets.
- .....

### help

**Syntax**

help [*<options>*] [*<target>*]

**Description**

The help command is used to request information related to the use of the CLP.

When you omit <target>, the help command will display information about the use of current target.

### cd

**Syntax**

cd [*<options>*] [*<target>*]

**Description**

The cd command is used to change the current default target to the target specified by the <target> argument.

You can shorten a command by changing current target.

When you omit <target>, the cd command will display current target.

### exit

**Syntax**

exit [*<options>*]

**Description**

The exit command terminates and logs out the user session.

### show

**Syntax**

show [*<options>*] [*<target>*]

**Description**

The show command is used to display information about <target>.

When you omit <target>, the show command will display information about current target.

### create

**Syntax**

create [*<options>*] <target>

**Description**

The create command is used to create new target objects.

## **delete**

### **Syntax**

delete [*<options>*] [*<target>*]

### **Description**

The delete command is used to remove a target.

When you omit *<target>*, the delete command will delete current target.

## **load**

### **Syntax**

load [*<options>*] [*<target>*]

### **Description**

The load command is used to take a binary image from a specific source location and place it at the specified target address.

## **reset**

### **Syntax**

reset [*<options>*] [*<target>*]

### **Description**

The reset command resets the target's state.

## **set**

### **Syntax**

set [*<options>*] [*<target>*] *<propertyname>*=*<value>*...

### **Description**

The set command is used to set the value of one or more of a target's properties.

## **start**

### **Syntax**

start [*<options>*] [*<target>*]

### **Description**

The start command starts the target.

## **stop**

### **Syntax**

stop [*<options>*] [*<target>*]

### **Description**

The stop command stops the target.

## **dump**

### **Syntax**

dump *-destination <path>* [*<options>*] [*<target>*]

### **Description**

The dump command is used to take a binary image from the target and send it to a specific location.

### 1.5.1 Target

Each basic command functions to a specified target. The target points the managed element by address path much like the path to a file in a file system.

Both absolute path, which is started from "/", and relative path are available for pointing the target. Specifically, "." and ".." are supported. The "." means the current default target and the ".." means the parent target.

Specifying the target, enter <target> following to each basic command. If it is not specified, commands functions to a current default target. The current default target can be changed by the cd command. The current default target is "/"(root) when the command line interface session is started.

### 1.5.2 Basic options

This section describes basic options based on SMASH style.

#### **-h | -help**

##### **Description**

Displays documentation about the command verb.  
When this option is specified, the command is not executed.  
This option is supported by all basic commands.

#### **-x | -examine**

##### **Description**

Checks the syntax of the command.  
When this option is specified, the command is not executed.  
This option is supported by all basic commands.

#### **-d | -display <type>[,<type>,...]**

##### **Description**

Shows information of the selected <type>.  
This option is supported by show command.  
Type can specify the following items. If there are multiple types, they must be separated by commas.

##### ***targets*[(<name>, ...)]**

Shows the target.  
When <name> is specified, the target that matches <name> is displayed.  
If there are multiple <name>, they must be surrounded by parenthesis and separated by commas.

##### ***properties*[(<name>, ...)]**

Shows properties.  
When <name> is specified, the property that matches <name> is displayed.  
If there are multiple <name>, they must be surrounded by parenthesis and separated by commas.

##### ***verbs***

Shows supported commands.

## Examples

(1) Shows only targets

```
Show -d Targets
```

(2) Shows target whose name is “server01” and supported commands.

```
show -d targets=server01,verbs
```

(3) Shows property whose name is “Name” or “Status”, and shows supported commands.

```
show -d properties=(Name,Status),verbs
```

### **-o | -output <arg>(,<arg>...)**

#### **Description**

Specifies a format of output data.

*format=text | clpxml*

If set to "text", output is in text format.

If set to "clpxml", output is in XML format.

## 1.5.3 Specific options

This section describes NEC ESMPRO Manager specific options.

### **-exclude <arg>[,<arg>,...]**

#### **Description**

Specifies exceptional items. This option is effective when the target is group.

*cmp="(("<name>,<name>, ...,<name>")"*

Specifies exceptional items using component names.

If there are some <name>, they must be separated by comma and surrounded by parentheses.

*grp="(("<name>,<name>, ...,<name>")"*

Specifies exceptional items using group names.

If there are some <name>, they must be separated by comma and surrounded by parentheses.

*ufit="(("<name>,<name>, ...,<name>")"*

Specifies exceptional items using UFiT.

If there are some <name>, they must be separated by comma and surrounded by parentheses.

.....  
**TIP:**

- UFiT is displayed at the result of show command.
- .....

### **-outputfile <path>**

#### **Description**

Saves command result to a file of specified path.

When the file of specified path is not existing, new file is created and output it.

When the file of specified path exists and the file is not an output file of esmcli, the command result will be error.

This option is supported by all basic commands.

## 1.6 Example of command output

All commands shows results as following format.

```
-> <CLI command>
<status>
results

->
```

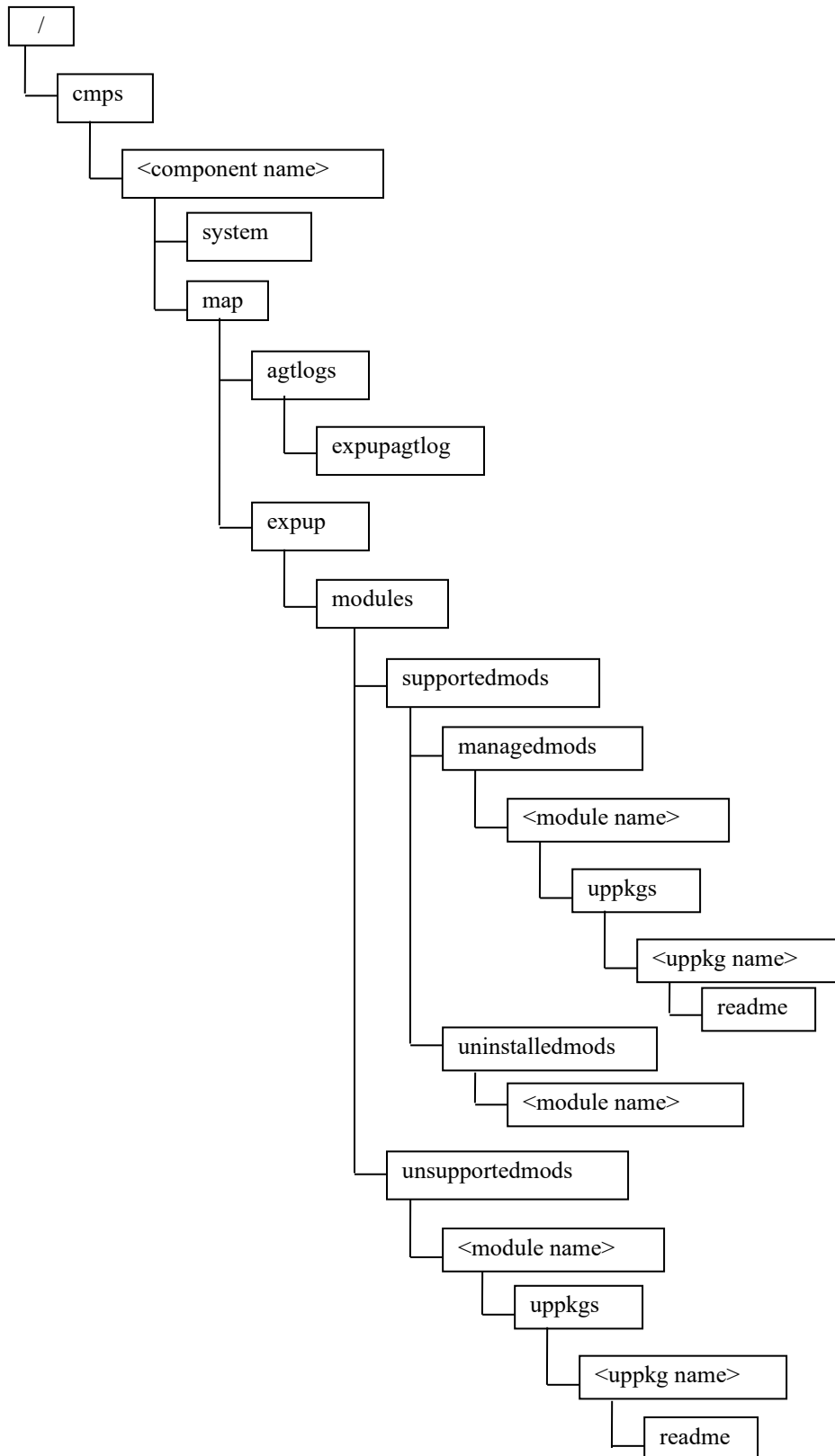
Each status is listed in below table.

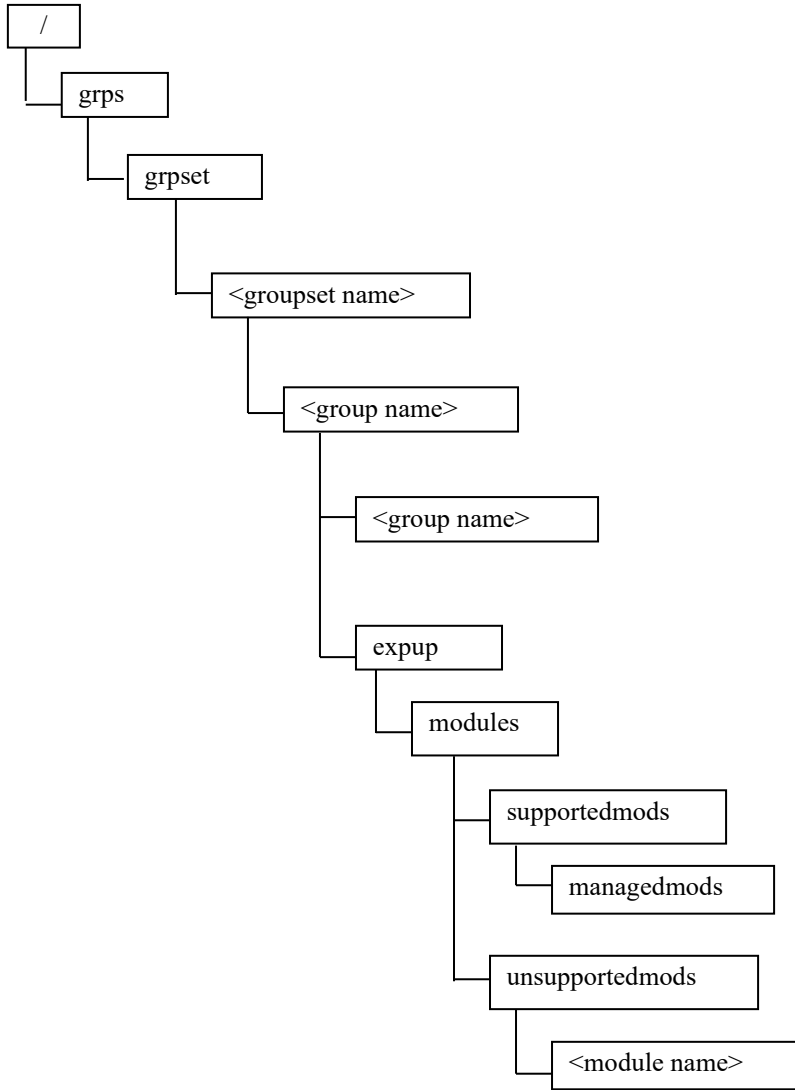
**Table 1-2 Statuses**

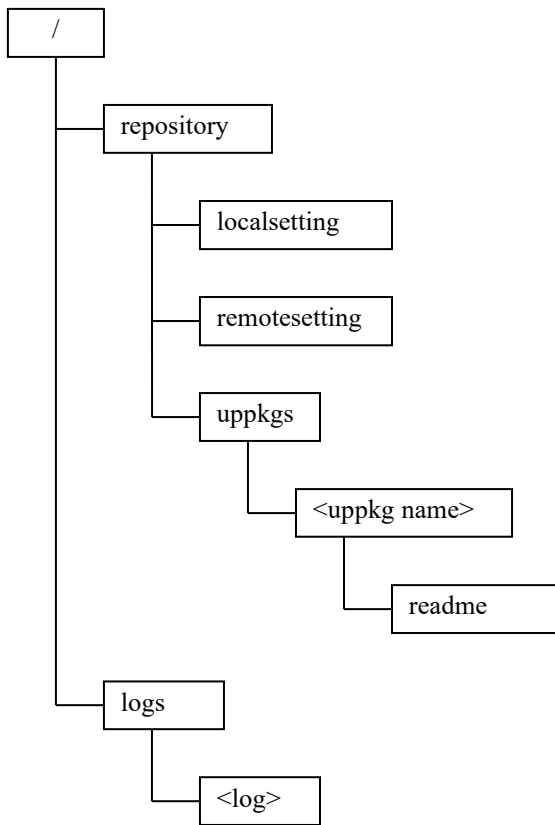
Status	Description
COMMAND COMPLETED	Command was successful. Following commands skips to show this status. <ul style="list-style-type: none"><li>• cd</li><li>• exit</li><li>• help</li><li>• how</li></ul>
COMMAND PROCESSING FAILED	Syntax error was occurred.
COMMAND EXECUTION FAILED	Command was unsuccessful.

## 1.7 Diagram of the entire address space

A diagram of the entire address space is as follow.







## Chapter2 XML interface

---

### 2.1 Execution of XML

#### 2.1.1 Overview

This function enables you to write a command and arguments into a request XML file and execute the file instead of "Shell mode" or "One liner mode". An XML schema of the request XML is described in "9.1.1XML Schema for request file".

#### 2.1.2 XML elements

Standard contents of the request XML are as below. Details of those elements are described in Table 2-1.

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <COMMAND>
    <abort>true</abort>
    <instance>
      <ufip>Target of this COMMAND</ufip>
      <options>
        <option>
          <name>Name of option</name>
          <value>
            <val>Value of option</val>
          </value>
        </option>
      </options>
      <properties>
        <property>
          <name>Name of property</name>
          <value>
            <val>Value of property</val>
          </value>
        </property>
      </properties>
    </instance>
  </COMMAND>
</request>
```

**Table 2-1 Elements of request XML**

Name of element	Description
request	A root element of request XML.
COMMAND	An element specifying a basic command.
abort	An element specifying a behavior in case of error. If set to true, the process is stopped. If set to false, the process runs on. If this element does not exist, true is used. This setting is only used when multi commands are defined in a request XML.
instance	An element grouping a target, options and properties.
ufip	An element specifying a target of the command.
options	An element grouping option elements.
option	An element corresponding to option.
properties	An element grouping property elements.
property	An element corresponding to property.
name	An element holding a name of option or property.
value	An element holding a val element.
val	An element holding a value of option or property.
include	An element specifying an included XML file.
file	An element specifying a file.

### 2.1.3 Examples

Followings are typical command's input method using shell mode and XML interface.

#### Example

Execute 'show' command to '/'.

```
->show /
```

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <show>
    <instance>
      <ufip>/</ufip>
    </instance>
  </show>
</request>
```

**Example**

Execute 'dump' command to /logs and save logs to C:¥temp.

```
->dump -destination C:¥temp /logs
```

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <dump>
    <instance>
      <ufip>/logs</ufip>
      <options>
        <option>
          <name>destination</name>
          <value>
            <val>C:¥temp</val>
          </value>
        </option>
      </options>
    </instance>
  </dump>
</request>
```

**Example**

Execute 'set' command to /repository and change RepositoryLocation to LOCAL.

```
-> set /repository RepositoryLocation=LOCAL
```

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <set>
    <instance>
      <ufip>/repository</ufip>
      <properties>
        <property>
          <name>RepositoryLocation</name>
          <value>
            <val>LOCAL</val>
          </value>
        </property>
      </properties>
    </instance>
  </set>
</request>
```

**Example**

Execute 'load' command to /cmps/<Component Name>/map/expup and applies latest update packages to <Component Name>.

```
->load /cmps/<Component Name>/map/expup
```

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <load>
    <instance>
      <ufip>/cmps/<Component Name>/map/expup</ufip>
    </instance>
  </load>
</request>
```

## 2.1.4 Override process

Specifying '-override' option with the esmcli, following elements of an XML file will be overridden.

- ufip element
- val element belonging to option element
- val element belonging to property element

The overridden element is specified by absolute path separated by '/'. To specify some elements, describe them separated by ','.

- esmcli -f filename.xml -override /request/<ElementName>/<ElementName>=<Value>,...

If there is more than one element corresponding to the specified path, specify the order of the element by "ElementName[number]". If the number is not specified, all elements corresponding to the path will be overridden.

In the following example,

- /request/show/instance/options/option/value/val[1] matches [1]
- /request/show/instance/options/option/value/val[2] matches [2]
- /request/show/instance/options/option/value/val matches both [1] and [2]

```
<request>
  <show>
    <instance>
      <ufip>/</ufip>
      <options>
        <option>
          <name>name</name>
          <value>
            <val>val</val>      <!-- [1] -->
          </value>
        </option>
        <option>
          <name>name</name>
          <value>
            <val>val</val>      <!-- [2] -->
          </value>
        </option>
      </options>
    </instance>
  </show>
</request>
```

## 2.1.5 Include process

A request XML can include other request XML and execute its commands. To use this function, create an `<include>` element under `<request>` element and specify included file using `<file>` element.

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <include>
    <file>filename.xml</file>
    <abort>true</abort>
  </include>
</request>
```

More than one element can be specified. In the following case, filename1.xml is executed and then filename2.xml is executed.

```
<?xml version="1.0" encoding="UTF-8"?>
<request>
  <include>
    <file>filename1.xml</file>
    <abort>true</abort>
  </include>
  <include>
    <file>filename2.xml</file>
    <abort>true</abort>
  </include>
</request>
```

## 2.2 Output XML data

### 2.2.1 Overview

If an argument "-o | -output format=clpxml" is specified, output is in XML format. An XML schema of the XML is described in "9.1.2 XML Schema for response file".

### 2.2.2 XML elements

Standard contents of the response XML are as below. A format of <COMMAND> element is different from each basic commands. Details of other elements are described in Table 2-2.

```
<!-- In the case of successful -->
<?xml version="1.0" encoding="UTF-8"?>
<response>
  <command>
    <inputline>...</inputline>
  </command>
  <cmdstat>
    <status>0</status>
    <status_tag>COMMAND COMPLETED</status_tag>
  </cmdstat>
  <COMMAND>
</ COMMAND >
  <oemdata>
</oemdata>
</response>
```

```
<!-- In case of error -->
<?xml version="1.0" encoding="UTF-8"?>
<response>
  <command>
    <inputline>...</inputline>
  </command>
  <cmdstat>
    <status>3</status>
    <status_tag>COMMAND EXECUTION FAILED</status_tag>
    <error>255</error>
    <error_tag>COMMAND ERROR UNSPECIFIED</error_tag>
  </cmdstat>
  < COMMAND >
</ COMMAND >
  <oemdata>
</oemdata>
</response>
```

**Table 2-2 Elements of response XML**

Name of element	Description
response	A root element of response XML.
command	An element holding information of the command.
inputline	An element holding an input command line.
cmdstat	An element grouping a status of command.
status	An element holding a status code.
status tag	An element holding a status tag.
error	An element holding a error code.
error tag	An element holding a status tag.
COMMAND	An element specifying a basic command.
target	An element holding a target of the command.
instance	An element grouping a target, options and properties.
ufit	An element holding target's UFiT.
ufip	An element holding target's UFiP.
properties	An element grouping property elements.
property	An element corresponding to property.
name	An element holding a name of property.
value	An element holding a val element.
val	An element holding a value of property.
source	An element holding source information of dump and load command.
destination	An element holding destination information of dump and load command.
uri	An element holding a path of the file system.
help	An element holding a help message.
text	An element holding a text message.
examine	An element holding a result of examination.
verbs	An element holding a list of supported commands.
standardverbs	An element holding standard verbs.
oemdata	An element holding esmcli specific information.
exitcode	An element holding an exit code.
result	An element holding a result of the command.

### 2.2.3 XML format for each basic commands

Followings are XML format of each basic commands. A XML schema of the XML is described in "9.1.2XML Schema for response file".

#### 2.2.3.1 cd

```
<cd>
  <ufip>UFiP of the current default target.</ufip>
</cd>
```

### 2.2.3.2 delete

```
<delete>
  <target>
    <instance>
      <ufip>UFiP identifying target.</ufip>
    </instance>
    <target>
      Recursive target elements representing Managed Elements contained in the initial target.
    </target>
  </target>
</delete>
```

### 2.2.3.3 dump

```
<dump>
  <source>
    <ufip>Full path of source of dump</ufip>
  </source>
  <destination>
    <ufip>Full path of destination of dump</ufip>
  </destination>
</dump>
```

### 2.2.3.4 exit

```
<exit>
</exit>
```

### 2.2.3.5 help

```
<help>
  <text>Free-form text</text>
</help>
```

### 2.2.3.6 load

```
<load>
  <source>
    <uri>Full path of source of load</uri>
  </source>
  <destination>
    <ufip>Full path of destination of load</ufip>
  </destination>
</load>
```

### 2.2.3.7 set

```
<set>
  <instance>
    <ufip>UFIp identifying target</ufip>
    <properties>
      <propesty>A modified property of Managed Element.</property>
    </properties>
  </instance>
</set>
```

### 2.2.3.8 show

```
<show>
  <target>
    <instance>
      <ufip>UFIp identifying target</ufip>
      <properties>
        <property>A property of Managed Element</property>
      </properties>
      <verbs>
        <standardverbs>Standard commands supported at the target.</standardverbs>
        <oemverbs>OEM commands supported at the target.</oemverbs>
      </verbs>
    </instance>
    <target>Recursive target elements representing Managed Elements contained in initial target.</target>
  </target>
</show>
```

### 2.2.3.9 stop

```
<stop>
  <ufip>UFIp identifying target to stop</ufip>
</stop>
```

## Chapter3 Component management

---

### 3.1 Component information

#### 3.1.1 Showing a list of components

'show' command at following target shows a list of all managed components.

- /cmps

Properties of this target are as follow. There is no specified command for this target.

**Table 3-1 Properties of '/cmps'**

Property	Access	Description
EntryCount	read	Displays a number of registered components.
Status	read	Displays a representative status of all of the components.
ExpUpStatus	read	Displays a representative ExpressUpdate status of all of the components. Refer to Table 5-2 ExpressUpdate statuses to get information about ExpressUpdate status.

#### Example

'show' command shows a list of managed components.

More concrete examples are as follows.

```
-> show /cmps
ufip=/cmps
ufit=/cmps
Targets:
  Server01
  Server02
Properties:
  EntryCount=2
  Status=NORMAL
  ExpUpStatus=LATEST_CONDITION
Verbs:
  cd
  exit
  help
  show
```

.....  
**Tip:**

- 'show /cmps' command also shows above information even if the current target is not "/cmps".
- .....

### 3.1.2 Showing component information

'show' command at following target shows information of managed component.

- /cmps/<Component Name>

Properties of this target are as follow. There is no specified command for this target.

**Table 3-2 Properties of '/cmps/<Component Name>'**

Property	Access	Description
Name	read	Displays a name of the component.
Status	read	Displays a representative status of all of the components.
ExpUpStatus	read	Displays a representative ExpressUpdate status of all of the components. Refer to Table 5-2 to get information about ExpressUpdate status.
Group	read	Displays a name of a group which the component belongs to.
IpAddress	read	Displays an IP address of the component.
BmcIpAddress	read	Displays a BMC's IP address of the component.
Model	read	Displays a model name of the component.
SerialNumber	read	Displays a serial number of the component.
Guid	read	Displays a GUID of the component.
OsVersion	read	Displays an OS information of the component.

#### Example

'show' command shows information of the component.

More concrete examples are as follows.

```
-> show /cmps/Server01
ufip=/cmps/Server01
ufit=Server01
Targets:
  system
  map
Properties:
  Name=Server01
  Status=NORMAL
  ExpUpStatus=LATEST_CONDITION
  Group=group01
  IpAddress=192.168.14.18
  BmcIpAddress=192.168.14.19
  Model=Express5800/51Ma [N8000-2001]
  SerialNumber=1234567
  Guid=AAAAAAAA-0000-BBBB-1111-CCCCCCCCCCCC
  OsVersion=Microsoft Windows Vista Business Service Pack 2
Verbs:
  cd
  exit
  help
  show
```

## Chapter4 Group management

---

### 4.1 Group information

#### 4.1.1 Showing a list of groupset

'show' command at the following target shows a list of groupset.

- /grps

Property of this target is as follow. There is no specified command for this target.

**Table 4-1 Properties of '/grps'**

Property	Access	Description
EntryCount	read	A number of registered groupset.

#### Example

'show' command shows a list of groupset.

More concrete examples are as follows.

```
-> show /grps
ufip=/grps
ufit=grps
Targets:
  grpset
  chassisset
Properties:
  EntryCount=2
Verbs:
  cd
  exit
  help
  show
```

### 4.1.2 Showing information of groupset

'show' command at the following target shows information of groupset.

- /grps/<GroupSet Name>

Properties of this target are as follow. There is no specified command for this target.

**Table 4-2 Properties of '/grps/<GroupSet Name>'**

Property	Access	Description
Name	read	Displays a name of groupset.
RootGroup	read	Displays root group's name.

#### Example

'show' command shows information of a groupset.

More concrete examples are as follows.

```
-> show /grps/grpset
ufip=/grps
ufit=grps
Targets:
  root
Properties:
  Name=grpset
  RootGroup=root
Verbs:
  cd
  exit
  help
  show
```

### 4.1.3 Showing information of group

'show' command at the following target shows information of a group.

- /grps/<GroupSet Name>/<Group Name>

Properties of this target are as follow. There is no specified command for this target.

**Table 4-3 Properties of '/grps/<GroupSet Name>/<Group Name>'**

Property	Access	Description
Name	read	Displays a name of the group.
Status	read	Displays a status of the group.
ExpUpStatus	read	Displays an ExpressUpdate status of the group.
GroupCount	read	Displays a number of groups belonging to the group.
ComponentCount	read	Displays a number of components belonging to the group.
Comment	read	Displays a comment of the group.
Components	read	Displays a list of components belonging to the group.

#### Example

'show' command shows information of the group.

More concrete examples are as follows.

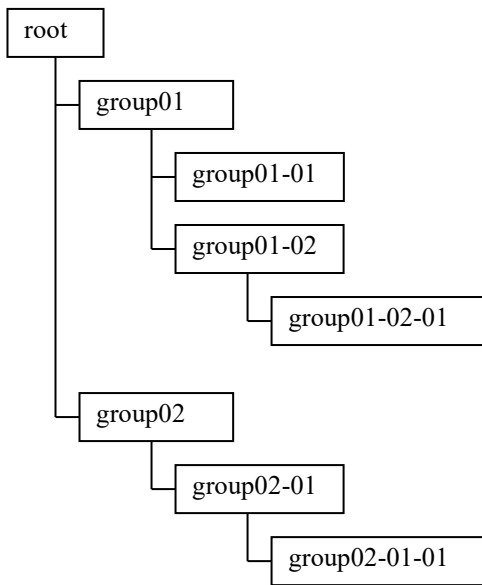
```
-> show /grps/grpset/root
ufip=/grps/grpset/root
ufit=root
Targets:
  group01
  group02
  expup
Properties:
  Name=grpset
  Status=NORMAL
  ExpUpStatus=LATEST_CONDITION
  GroupCount=2
  ComponentCount=3
  Comment=-
  Components=server01
                server02
                server03
Verbs:
  cd
  exit
  help
  show
```

When show command is executed to groups, 'grpall' is able to specify as a <type> of -display option. If it is specified, all groups are show as hierarchy style.

Following command shows all groups as hierarchy.

```
show -display targets,grpall
```

Followings are example of the below hierarchy diagram.



```
-> show -display targets,grpall /grps/grpset/root
ufip=/grps/grpset/root
ufit=root
Targets:
  group01
    group01-01
    group01-02
      group01-02-01
  group02
    group02-01
      group02-01-01
expup
```

## Chapter5 ExpressUpdate

### 5.1 ExpressUpdate information

#### 5.1.1 Displaying ExpressUpdate information

##### 5.1.1.1 Information of components

'show' command at the below target enables you to view ExpressUpdate information about the specified component.

- /cmps/<Component Name>/map/expup

Properties and specific commands of this target are as follows.

**Table 5-1 Properties of '/cmps/<Component Name>/map/expup'**

Property	Access	Description
ExpUpStatus	read	Displays ExpressUpdate statuses. Each status is listed in Table 5-2.
NextUpdateDate	read	Displays time and date of the next update if the update is scheduled by the remote batch function.
RepositoryLocation	read	Displays a location of the repository. (local/remote)
UpdatePkgLatestDownloaded	read	Displays the most recent time when the repository was updated. If updating has never been executed, it shows 'None'.
NextDownloadDate	read	Displays time and date of the next repository update if it is scheduled.

**Table 5-2 ExpressUpdate statuses**

Status	Description
NOT_LATEST	The repository has update packages newer than current version.
UNDER_INSTALLATION	An updating is in progress.
UNDER_UNINSTALLING	An uninstallation is in progress. A progress ratio is also shown.
REBOOTING	The update which requires rebooting the system is executed and rebooting is in progress. It is not possible to update a module under this status.
REBOOT_REQUIRED	This status shows that the system has not been rebooted yet although the update requires rebooting. In this status, the update has not been completed yet. This status is cleared by rebooting the system. It is not possible to update a module under this status.
LATEST_CONDITION	The repository has no update package newer than current version.
INSTALLATION_FAILED	This status shows that the last update command was unsuccessful. This status is cleared by rebooting the system. A reason of the failure is shown in application logs. Refer to section 6.1.1 and 6.1.2 to get more information about the application log. It is not possible to update a module under this status.
ACCESS_FAILED	There is no communication to NEC ExpressUpdate Agent.
UNKNOWN	Failed to get version information because the repository has incompatible packages. Updating ESM/ServerManager is required.
NO_PACKAGE	The repository has no package.
INSTALLABLE	The specified software is installable.

**Table 5-3 Specific commands of '/cmps/<Component Name>/map/expup'**

Command	Description
load	Updates all modules of <Component Name> to the latest version. Refer to section 5.2.1.1 for more information.
stop	Cancels all update command to <Component Name>. Refer to section 5.2.4.1 for more information.

**Example**

'show /cmps/<Component Name>/map/expup' command enables you to view ExpressUpdate information of the component <Component Name>.

```
-> show /cmps/Server01/map/expup
ufip=/cmps/Server01/map/expup
ufit=expup
Targets:
  mods          (#1)
  uninstalled   (#2)
  modules
Properties:
  RepositoryLocation=LOCAL
  ExpUpStatus=NOT_LATEST
  UpdatePkgLatestDownloaded=2011/04/01 01:00:00
  NextDownloadDate=2011/04/02 01:00:00
  Model=Express5800/110Ge-S
  OsVersion=Microsoft Windows Vista Business Service Pack 2 x64
  NextUpdateDate=2011/05/01 12:00
Verbs:
  cd
  exit
  help
  show
  load
  stop
```

#1: 'mods' element is deprecated. Use '/cmps/Server01/map/expup/modules/supportedmods/managedmods' instead of this.

#2: 'uninstalled' element is deprecated. Use '/cmps/Server01/map/expup/modules/supportedmods/uninstalledmods' instead of this.

**5.1.1.2 Information of groups**

'show' command at the below target enables you to view ExpressUpdate information about the specified group.

- /grps/grpset/<Group Name>/expup

Properties and specific commands of this target are as follows.

**Table 5-4 Properties of '/grps/grpset/<Group Name>/expup'**

Property	Access	Description
ExpUpStatus	read	Displays ExpressUpdate statuses. Each status is listed in Table 5-2.
RepositoryLocation	read	Displays a location of the repository. (local/remote)
UpdatePkgLatestDownloaded	read	Displays the most recent time when the repository was updated. If updating has never been executed, it shows 'None'.
NextDownloadDate	read	Displays time and date of the next repository update if it is scheduled.

**Table 5-5 Specific commands of '/grps/grpset/<Group Name>/expup'**

Command	Description
load	Updates all modules of components belonging to the specified group to the latest version. Refer to section 5.2.1.3 for more information.
stop	Cancels all update command to <Group Name>. Refer to section 5.2.4.2 for more information.

**Example**

'show /grps/grpset/<Group Name>/expup' command enables you to view ExpressUpdate information of the group<Group Name>.

```
-> show /grps/grpset/root/expup
ufip=/grps/grpset/root/expup
ufit=expup
Targets:
  mods      (#1)
  modules
Properties:
  RepositoryLocation=LOCAL
  ExpUpStatus=NOT_LATEST
  UpdatePkgLatestDownloaded=2011/04/01 01:00:00
  NextDownloadDate=2011/04/02 01:00:00
Verbs:
  cd
  exit
  help
  show
  load
  stop
```

#1: 'mods' element is deprecated. Use '/grps/grpset/root/expup/modules/supportedmods/managedmods' instead of this.

**5.1.2 Displaying a list of modules supporting automatic update**

**5.1.2.1 Information of components**

A list of modules supporting automatic update for the specified component is displayed at the below target.

- /cmps/ <Component Name>/map/expup/modules/supportedmods/managedmods

Property of this target is as follow. There is no specified command for this target.

**Table 5-6 Property of '/cmps/ <Component Name>/map/expup/modules/supportedmods/managedmods'**

Property	Access	Description
EntryCount	read	Displays a number of modules managed by ExpressUpdate.

### Example

'show /cmps/<Component Name> /map/expup/mods' command enables you to view a list of modules for the specified component<Component Name>.

```
-> show /cmps/Server01/map/expup/modules/supportedmods/managedmods
ufip=/cmps/Server01/map/expup/modules/supportedmods/managedmods
ufit=managedmods
Targets:
  "System BIOS"
  "BMC Firmware"
  "NEC ExpressUpdate Agent"
Properties:
  EntryCount=3
Verbs:
  cd
  exit
  help
  show
```

### 5.1.2.2 Information of groups

A list of modules supporting automatic update for components belongs to the specified group is displayed at the below target.

- /grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods

Property of this target is as follows. There is no specified command for this target.

**Table 5-7 Property of '/grps/grpset/ <Group Name>/ expup/modules/supportedmods/managed mods'**

Property	Access	Description
EntryCount	read	Displays a number of modules managed by ExpressUpdate.

### Example

'show /grpset/<Group Name>/expup/modules/supportedmods/managedmods' command enables you to view a list of modules for components belonging to the specified group<Group Name>.

```
-> show /grps/grpset/root/expup/modules/supportedmods/managedmods
ufip=/grps/grpset/root/expup/modules/supportedmods/managedmods
ufit=managedmods
Targets:
  "System BIOS"
  "BMC Firmware"
  "NEC ExpressUpdate Agent"
Properties
  EntryCount=3
Verbs
  cd
  exit
  help
  show
```

## 5.1.3 Displaying a list of modules not supporting automatic update

### 5.1.3.1 Information of components

A list of modules not supporting automatic update for the specified component is displayed at the below target.

- `/cmps/<Component Name>/map/expup/modules/unsupportedmods`

Property of this target is as follow. There is no specified command for this target.

**Table 5-8 Property of `'/cmps/ <Component Name>/map/expup/modules/ unsupportedmods '`**

Property	Access	Description
EntryCount	read	Displays a number of modules managed by ExpressUpdate.

#### Example

`'show /cmps/<Component Name>/map/expup/unsupportedmods'` command enables you to view a list of modules for the specified component `<Component Name>`.

```
-> show /cmps/Server01/map/expup/modules/unsupportedmods
ufip=/cmps/Server01/map/expup/modules/unsupportedmods
ufit=unsupportedmods
Targets:
  "System BIOS"
  "BMC Firmware"
  "NEC ExpressUpdate Agent"
Properties:
  EntryCount=3
Verbs:
  cd
  exit
  help
  show
```

### 5.1.3.2 Information of groups

A list of modules not supporting automatic update for the specified group is displayed at the below target.

- /grps/grpset/<Group Name>/expup/modules/unsupportedmods

Property of this target is as follow. There is no specified command for this target.

**Table 5-9 Property of '/grps/grpset/<Group Name>/expup/modules/unsupportedmods'**

Property	Access	Description
EntryCount	read	Displays a number of modules managed by ExpressUpdate.

#### Example

`show/grps/grpset/<Group Name>/expup/modules/unsupportedmods` command enables you to view a list of modules for the specified group <Group Name>.

```
-> show /grps/grpset/root/expup/modules/unsupportedmods
ufip=/grps/grpset/root/expup/modules/unsupportedmods
ufit=unsupportedmods
Targets:
  "System BIOS"
  "BMC Firmware"
  "NEC ExpressUpdate Agent"
Properties:
  EntryCount=3
Verbs:
  cd
  exit
  help
  show
```

## 5.1.4 Information of module supporting automatic update

### 5.1.4.1 Information of components

Information about each module supporting automatic update is displayed at the below target.

- /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>

Properties and specific commands of this target are as follows.

**Table 5-10 Properties of '/cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>'**

Property	Access	Description
Module	read	Displays a name of this module.
ExpUpStatus	read	Displays ExpressUpdate status of this module. Each status is listed in Table 5-2.
Version	read	Displays current version of this module.
Severity	read	Displays a severity of the update. Severities are as follows: <ul style="list-style-type: none"> <li>• HIGH</li> <li>• MEDIUM</li> <li>• LOW</li> </ul>
LatestApplyResult	read	Displays result of the most recent update. If updates have never been executed, it shows hyphen (-).

**Table 5-11 Specific commands of '/cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>'**

Command	Description
load	Updates or installs the specified module. Refer to section 5.2.1.2 and 5.2.2 for more information.
delete	Uninstalls the specified module. Refer to section 5.2.3 for more information.

#### Example

`show /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>` command enables you to view information about the module<Module Name> of the component<Component Name>.

```
-> show /cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufip=/cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufit="NEC ExpressUpdate Agent"
```

Targets:

```
  upkgs
```

Properties:

```
  Module= NEC ExpressUpdate Agent
```

```
  ExpUpStatus=NOT_LATEST
```

```
  Version=3.0
```

```
  Severity=HIGH
```

```
  LatestApplyResult=2011/04/01 12:00:00
```

```
      Applying the update package has been completed successfully.
```

```
      (NEC ExpressUpdate Agent: 1.0 -> 2.0)
```

Verbs:

```
  cd
```

```
  exit
```

```
  help
```

```
  show
```

```
  load
```

```
  delete
```

### 5.1.4.2 Information of groups

Information about each module is displayed at the below target.

- `/grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>`

Properties and specific commands of this target are as follows.

**Table 5-12 Properties of `'/grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>'`**

Property	Access	Description
Module	read	Displays a name of this module.
ExpUpStatus	read	Displays ExpressUpdate status of this module. Each status is listed in Table 5-2.

**Table 5-13 Specific command of `'/grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>'`**

Command	Description
load	Updates the specified module. Refer to section 5.2.1.4 for more information.

#### Example

``show /grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>`` command enables you to view information about the module `<Module Name>` of the component `< Group Name>`.

```
-> show /grps/grpset/root/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufip=/grps/grpset/root/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufit="NEC ExpressUpdate Agent"
Targets:
  upkgs
Properties:
  Module= NEC ExpressUpdate Agent
  ExpUpStatus=NOT_LATEST
  Version=3.0
  Severity=HIGH
  LatestApplyResult=2011/04/01 12:00:00
                        Applying the update package has been completed successfully.
                        (NEC ExpressUpdate Agent: 1.0 -> 2.0)

Verbs:
  cd
  exit
  help
  show
  load
  delete
```

## 5.1.5 Information of module not supporting automatic update

### 5.1.5.1 Information of components

Information about each module not supporting automatic update is displayed at the below target.

- /cmps/<Component Name>/map/expup/modules/unsupportedmod/<Module Name>

Properties and specific commands of this target are as follows.

**Table 5-14 Properties of '/cmps/<Component Name>/map/expup/modules/unsupportedmod/<Module Name>'**

Property	Access	Description
Module	read	Displays a name of this module.
ExpUpStatus	read	An ExpressUpdate status of the moduls. Statuses are as follows: <ul style="list-style-type: none"> <li>• BLUE</li> <li>• RED</li> <li>• BLACK</li> </ul>
Version	read	Displays current version of this module.
Severity	read	Displays a severity of the update. Severities are as follows: <ul style="list-style-type: none"> <li>• HIGH</li> <li>• MEDIUM</li> <li>• LOW</li> </ul>
LatestApplyResult	read	Displays result of the most recent update. If updates have never been executed, it shows hyphen (-).

**Table 5-15 Specific commands of '/cmps/<Component Name>/map/expup/modules/unsupportedmod/<Module Name>'**

Command	Description
set	Changes ExpUpStatus of the module. "BLUE", "RED" and "BLACK" are able to be specified.

#### Example

`show /cmps/<Component Name>/map/expup/modules/unsupportedmod/<Module Name>` command enables you to view information about the module<Module Name> of the component<Component Name>.

```
-> show /cmps/Server01/map/expup/modules/unsupportedmod/"BMC Firmware "
ufip=/cmps/Server01/map/expup/modules/unsupportedmod/"BMC Firmware"
ufit="BMC Firmware"
Targets:
  uppkg
Properties:
  Module=BMC Firmware
  ExpUpStatus=BLUE
  Version=3.0
  Severity=HIGH
LatestApplyResult=-
Verbs:
  cd
  exit
  help
  show
  set
```

### 5.1.5.2 Information of groups

Information about each module is displayed at the below target.

- `/grps/grpset/<Group Name>/expup/modules/unsupportedmods/<Module Name>`

Properties and specific commands of this target are as follows.

**Table 5-16 Properties of '/grps/grpset/<Group Name>/expup/modules/s unsupportedmods/<Module Name>'**

Property	Access	Description
Module	read	Displays a name of this module.
ExpUpStatus	read	An ExpressUpdate status of the moduls. Statuses are as follows: <ul style="list-style-type: none"> <li>• BLUE</li> <li>• RED</li> <li>• BLACK</li> </ul>

#### Example

'`show /grps/grpset/<Group Name>/expup/modules/unsupportedmods/<Module Name>`' command enables you to view information about the module<Module Name> of the component< Group Name>.

```
-> show /grps/grpset/root/expup/modules/unsupportedmods/"BMC Firmware"
ufip=/grps/grpset/root/expup/modules/unsupportedmods/"BMC Firmware"
ufit="BMC Firmware"
Targets:
  uppgs
Properties:
  Module=BMC Firmware
  ExpUpStatus=BLUE
  Severity=HIGH
Verbs:
  cd
  exit
  help
  show
```

## 5.2 Update, install and uninstall

### 5.2.1 Update modules supporting automatic update

#### 5.2.1.1 For the specified component

'load' command at the below target enables you to update all modules to the latest version.

- /cmps/<Component Name>/map/expup

Specific option of this command is as follow.

**Table 5-17 Specific option of '/cmps/ <Component Name>/map/expup'**

Option	Description
-reboot	Enables ExpressUpdate to reboot the system if the update requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

**Example**

'load /cmps/<Component Name>/map/expup' command enables you to update all modules of the specified component<Component Name>.

```
-> load -reboot /cmps/Server01/map/expup
COMMAND COMPLETED
Updating was started. Run the show command to the each module element and you can confirm this
command's progress from ExpUpStatus property. Run the show command to the each module element and
you can confirm this command's result from LatestApplyResult property.
/cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
```

.....  
**TIP:**

- If the update is in progress, ExpUpStatus property of 'show /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>' command shows the progress.
- .....

```
-> show /cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufip=/cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
ufit="NEC ExpressUpdate Agent"
Targets
  upkgs
Properties
  Module= NEC ExpressUpdate Agent
  ExpUpStatus=UNDER_INSTALLATION (5%)
  Version=2.0
  Severity=HIGH
  LatestApplyResult=2011/04/01 12:00:00
                                Applying the update package has been completed successfully.
                                (NEC ExpressUpdate Agent: 1.0 -> 2.0)
Verbs
  cd
  exit
  help
  show
  load
  delete
```

.....  
**TIP:**

- If the update has been finished, the result is shown in LatestApplyResult property of `show /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>` command.
- .....

LatestApplyResult=2011/04/01 12:00:00

Applying the update package has been completed successfully.  
(NEC ExpressUpdate Agent: 2.0 -> 3.0)

### 5.2.1.2 For the specified component and module

'load' command at the below target enables you to update the module <Module Name> of the component <Component Name> using the specified update package.

- /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>

Specific option of this command is as follow.

**Table 5-18 Specific options of '/cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>'**

Option	Description
<i>-source</i>	Specifies the update package.
<i>-f</i>   <i>-force</i>	Enables ExpressUpdate to update the module using an update package which is not latest.
<i>-reboot</i>	Enables ExpressUpdate to reboot the system if the update requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

.....  
**TIP:**

- UFiT of the update package that is referred by *-source* option is shown in the result of `show /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>/uppkgs` command.
- .....

### Example

'load /cmps/ <Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>' command enables you to update the module <Module Name> of the component <Component Name> using the specified update package.

```
-> load -force -source "2.0" /cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
COMMAND COMPLETED
Updating was started. Run the show command to the each module element and you can confirm this command's progress from ExpUpStatus property. Run the show command to the each module element and you can confirm this command's result from LatestApplyResult property.
/cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
```

### 5.2.1.3 For the specified group

'load' command at the below target enables you to update all modules of components belonging to the specified group<Group Name>. Refer to the section 5.1.4.1 for more information about this target.

- /grps/grpset/<Group Name>/expup

Specific option of this command is as follow.

**Table 5-19 Specific options of '/grps/grpset/<Group Name>/expup'**

Option	Description
-exclude	Specifies components or groups that are not included in this operation.
-reboot	Enables ExpressUpdate to reboot the system if the update requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

**Example**

'load /grps/grpset/<Group Name>/expup` command enables you to update all modules of components belonging to the specified group<Group Name>.

```
-> load -exclude cmp=Server02/grps/grpset/root/expup
COMMAND COMPLETED
Updating was started. Run the show command to the each module element and you can confirm this command's progress from ExpUpStatus property. Run the show command to the each module element and you can confirm this command's result from LatestApplyResult property.
```

### 5.2.1.4 For the specified group and module

'load' command at below targets enables you to update the specified module <Module Name> of components belonging to the specified group <Group Name>. Refer to the section 5.1.1.2 for more information about this target.

- /grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>

Specific option of this command is as follow.

**Table 5-20 Specific options of '/grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>'**

Option	Description
-exclude	Specifies components or groups that are not included in this operation.
-reboot	Enables ExpressUpdate to reboot the system if the update requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

**Example**

'load /grps/grpset/<Group Name>/expup/modules/supportedmods/managedmods/<Module Name>` command enables you to update the specified module <Module Name> of components belonging to the specified group <Group Name>.

```
-> load -exclude cmp=Server02 /grps/grpset/root/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
COMMAND COMPLETED
Updating was started. Run the show command to the each module element and you can confirm this command's progress from ExpUpStatus property. Run the show command to the each module element and you can confirm this command's result from LatestApplyResult property.
/cmps/ Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
```

## 5.2.2 Install commands

'load' command at below target enables you to install a module. Refer to the section 5.1.4.1 for more information about this target.

- /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>  
Specific option of this command is as follow.

**Table 5-21 Specific options of '/cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>'**

Option	Description
-source	Specifies the update package.
-reboot	Enables ExpressUpdate to reboot the system if the installation requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

**Example**

'load /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>' command enables you to install an module<Module Name> to the specified component<Component Name>.

```
-> load -source "4.4.1" /cmps/Server01/map/expup/modules/supportedmods/managedmods/"ESMPRO/ServerAgent Ver.4.4"
COMMAND COMPLETED
Updating was started. Run the show command to the each module element and you can confirm this command's progress from ExpUpStatus property. Run the show command to the each module element and you can confirm this command's result from LatestApplyResult property.
```

.....  
**TIP:**

- UFiT of the update package that is referred by -source option is shown in the result of `show /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>/uppkgs` command.
- .....

### 5.2.3 Uninstall commands

'delete' command enables you to uninstall a module. Refer to the section 5.1.4.1 for more information about this target.

- /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>

Specific option of this command is as follow.

**Table 5-22 Specific option of '/cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>'**

Option	Description
-reboot	Enables ExpressUpdate to reboot the system if the uninstallation requires it.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

**Example**

'load /cmps/<Component Name>/map/expup/modules/supportedmods/managedmods/<Module Name>' command enables you to uninstall an module<Module Name>from the specified component<Component Name>.

```
-> delete /cmps/Server01/map/expup/modules/supportedmods/managedmods/"NEC ExpressUpdate Agent"
COMMAND COMPLETED
Uninstall was started. Run the show command to the each module element and you can confirm this
command's progress from ExpUpStatus property. Run the show command to the each module element under
the uninstalledmods element and you can confirm this command's result from LatestApplyResult property.
```

## 5.2.4 Cancelling update commands

### 5.2.4.1 For components

'stop' command at below targets enables you to cancel updates. Refer to the section 5.1.1.1 for more information about this target.

- /cmps/<Component Name>/map/expup

There is no specific option for this command.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

.....  
**TIP:**

- This command effects only waiting tasks. A task which has been started is unable to be cancelled.
- .....

#### Example

`stop /cmps/<Component Name>/map/expup` command enables you to cancel updates of the specified component <Component Name>. If this command is successful, a list of cancelled tasks is shown.

```
-> stop /cmps/Server01/map/expup
COMMAND COMPLETED
  /cmps/Server01/map/expup/mods/"NEC ExpressUpdate Agent"
Cancel of update process was executed.
```

### 5.2.4.2 For groups

'stop' command at below targets enables you to cancel updates. Refer to the section 5.1.1.2 for more information about this target.

- /grps/grpset/<Group Name>/expup

There is no specific option for this command.

.....  
**CHECK :**

- In the case of the user authority is Operator, "Install Update Packages" of the user level must be enabled.
- .....

#### Example

`stop /grps/grpset/<Group Name>/expup` command enables you to cancel updates of components belonging to the specified group <Group Name>. If this command is successful, a list of cancelled tasks is shown.

```
-> stop /grps/grpset/root/expup
COMMAND COMPLETED
  /cmps/Server01/map/expup/mods/"BMC Firmware"
  /cmps/Server01/map/expup/mods/"NEC ExpressUpdate Agent"
  /cmps/Server02/map/expup/mods/"NEC ExpressUpdate Agent"
Cancel of update process was executed.
```

## 5.2.5 Update modules not supporting automatic update

Procedures for applying update packages not supporting automatic update are as below.

1. Copy the update package to be applied as an update package archive on your client PC.
  2. Pick up the update package from an update package archive and apply it.
- How to apply the update package is described in the readme file included in the update package.

### 5.2.5.1 For the specified component and module

'dump' command at the below target enables you to copy update packages related to specified component and module.

- `/cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkgs`

**Table 5-23 Properties of '/cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkgs'**

Property	Access	Description
EntryCount	read	Displays a number of modules managed by ExpressUpdate.
Progress	read	If creating an update package archive is in execution, its progress is displayed.

**Table 5-24 Specific command of '/cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkgs'**

Command	Description
dump	Archives update packages related to the specified module into an update package archive.
stop	Cancels creating an update package archive if it is in execution.

**Table 5-25 Specific options of 'dump /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkgs'**

Option	Description
<code>-destination &lt;path&gt;</code>	Specifies the path to the directory or zip file where the update package archive to be copy.
<code>-f   -force</code>	If an existing file path is specified, remove it and create new file.

#### Example

'dump /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>' command enables you to archive update packages into an update package archive. If starting command succeeds, update packages to be archived are listed.

```
-> dump -destination C:\temp /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkgs
COMMAND COMPLETED
"3.0"
"4.0"
"5.0"
The process to save update packages was started. To confirm its progress, execute 'show' command on update packages element and refer to Progress property.
C:\temp\UpdatePackageArchive_20120701.zip
```

### 5.2.5.2 For the specified component and update package

'dump' command at the below target enables you to copy update packages related to specified component and update package.

- /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/<PKG Version>

**Table 5-26 Properties of '/cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/<PKG Version>'**

Property	Access	Description
Module	read	Displays the name of firmware or software.
Version	read	Displays the version of the update package.
Release	read	Displays the release date of the update package.
Target	read	Displays the operating system name that the update package supports.
Model	read	Displays the model name of the component that the update package supports.
EstimatedTime	read	Displays the estimate of the time to install the update package.
Reboot	read	Displays whether that the selected update package requires a reboot after the installation. <ul style="list-style-type: none"> <li>• NECESSITY</li> <li>• UNNECESSITY</li> </ul>
Severity	read	Displays the severity of the update package. <ul style="list-style-type: none"> <li>• LOW</li> <li>• MEDIUM</li> <li>• HIGH</li> </ul>
ExpressUpdateSupported	read	Displays whether the update package supports automatic updating by NEC ExpressUpdate. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
DowngradeSupported	read	Displays whether the update package supports downgrade. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
MultipleModelSupported	read	Displays whether the update package supports multiple mode of component. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
OtherUsed	read	Displays whether the update package is in use by other NEC ESM PRO Manager. <ul style="list-style-type: none"> <li>• UNOCCUPIED</li> <li>• DURING USE</li> </ul>
Progress	read	If archiving update packages is in execution, displays its progress.

**Table 5-27 Specific command of '/cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/<PKG Version>'**

Command	Description
dump	Archives update packages related to the specified module into an update package archive.
stop	Cancels creating an update package archive if it is in execution.

**Table 5-28 Specific options of ' dump /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/<PKG Version>'5**

Option	Description
<i>-destination &lt;path&gt;</i>	Specifies the path to the directory or zip file where the update package archive to be copy.
<i>-f   -force</i>	If an existing file path is specified, remove it and create new file.

**Example**

`dump /cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/<PKG Version>` command enables you to archive an update package into an update package archive. If starting command succeeds, an update package to be archived is listed.

```
-> dump -destination C:\temp\cmps/<Component Name>/map/expup/modules/unsupportedmods/<Module Name>/uppkg/"5.0"
COMMAND COMPLETED
"5.0"
The process to save update packages was started. To confirm its progress, execute 'show' command on update packages element and refer to Progress property.
C:\temp\UpdatePackageArchive 20120701.zip
```

## 5.3 Repository and Update package management

### 5.3.1 Repository settings

Repository settings are located at the following target.

- /repository

Properties and specific commands of this target are as follows.

**Table 5-29 Properties of '/repository'**

Property	Access	Description
RepositoryLocation	read/write	Displays and sets location of the repository. The valid values are: <ul style="list-style-type: none"><li>• LOCAL</li><li>• REMOTE</li></ul>
UpdatePackageServerAddress	read	Displays address of update package server.
UpdatePkgLatestDownloaded	read	Displays the date when the repository downloaded update packages last.
TotalSizeOfUpdatePackage	read	Displays total size of update packages. The unit is MB.
FreeSpace	read	Displays free space of the disk which there is the preservation folder of the update packages.

**Table 5-30 Specific commands of '/repository'**

Command	Description
set	Sets repository settings. This command enables you to modify location of the repository.
load	Downloads or adds update packages to repository.
stop	Cancels downloading update packages from the update package server.

#### Examples

'show' command enables you to view the repository settings.

```
-> show /repository
ufip=/repository
ufit=/repository
Targets:
  uppkgs
  localsetting
  remotesetting
Properties:
  RepositoryLocation=LOCAL
  UpdatePackageServerAddress= http://www.exifs.nec.co.jp/
  UpdatePkgLatestDownloaded=2011/04/01 12:00:00
  TotalSizeOfUpdatePackage=34.2MB
  FreeSpace=100GB
Verbs:
  cd
  exit
  help
  show
  load
  set
  stop
```

#### Examples

'set' command enables you to modify location of the repository.

When you modify location of the repository in local, run the following command.

```
set /repository RepositoryLocation=LOCAL
```

### Examples

When you modify location of the repository in remote, run the following command in the remote repository settings have been set.

```
set /repository RepositoryLocation=REMOTE
```

.....  
**CHECK :**

- When you set RepositoryLocation in REMOTE, you should set remote repository settings beforehand. See 5.3.1.2 Remote repository settings.
  - In the case of the user authority is Operator, "Change Environment Setting" of the user level must be enabled.
- .....

### 5.3.1.1 Local repository settings

You can view and change Manager PC repository settings. Local repository settings are located at the following target.

- /repository/localsetting

Properties and specific commands of this target are as follows.

**Table 5-31 Properties of '/repository/localsetting'**

Property	Access	Description
RepositoryPassword	read/write	Sets the password to access repository. This is displayed in "*****".
AutoUpdate	read/write	Sets the automatic updating of the repository. The valid values are: <ul style="list-style-type: none"> <li>• INVALID</li> <li>• VALID – the repository downloads update packages.</li> </ul>
UpdateInterval	read/write	Sets the schedule type when "AutoUpdate" is "VALID". The valid values are: <ul style="list-style-type: none"> <li>• DAILY</li> <li>• EVERY_SUNDAY</li> <li>• EVERY_MONDAY</li> <li>• EVERY_TUESDAY</li> <li>• EVERY_WEDNESDAY</li> <li>• EVERY_THURSDAY</li> <li>• EVERY_FRIDAY</li> <li>• EVERY_SATURDAY</li> </ul>
UpdateStartTime	read/write	Sets downloading time when "AutoUpdate" is "VALID". The valid ranges are: <ul style="list-style-type: none"> <li>• 00:00 ~ 23:50</li> </ul> Time must be set by the 10 minute.
ProxyAddress	read/write	Sets the IP address of the proxy server.
ProxyPort	read/write	Sets the port number of the proxy server.
ProxyUser	read/write	Sets the user name with which the repository connects to the proxy server.
ProxyPassword	read/write	Sets the user password with which the repository connects to the proxy server. This is displayed in "*****".
DefaultStatusIcon	read/write	Sets the default status icon of a downloaded module which does not support the automatic update. The valid ranges are:

		<ul style="list-style-type: none"> <li>• BLUE</li> <li>• RED</li> <li>• BLACK</li> </ul>
--	--	--

**Table 5-32 Specific commands of '/repository/localsetting'**

Command	Description
set	Sets local repository settings properties.

**Examples**

'show' command enables you to view local repository settings.

```
-> show /repository/localsetting
ufip=/repository/localsetting
ufit=localsetting
Targets:
Properties:
  RepositoryPassword=*****
  AutoUpdate=VALID
  UpdateInterval=EVERY_SATURDAY
  UpdateStartTime=23:50
  ProxyAddress=-
  ProxyPort=0
  ProxyUser=-
  ProxyPassword=-
  DefaultStatusIcon=BLUE
Verbs:
  cd
  exit
  help
  show
  set
```

**Examples**

'set' command enables you to set one or more local repository settings properties. If there are multiple properties on the same command line, they must be separated by a space.

When you enable automatic downloading, run the following command.

```
set /repository/localsetting AutoUpdate=VALID
```

When you set the schedule type, run the following command.

```
set /repository/localsetting UpdateInterval=EVERY_SATURDAY
```

When you set downloading time, run the following command.

```
set /repository/localsetting UpdateStartTime=23:50
```

When you set the IP address and the port number of the proxy server on the same command line, run the following command.

```
set /repository/localsetting ProxyAddress=192.168.0.200 ProxyPort=8080
```

.....  
**CHECK :**

- In the case of the user authority is Operator, "Change Environment Setting" of the user level must be enabled.
- .....

### 5.3.1.2 Remote repository settings

Remote repository settings are located at the following target.

- /repository/remotesetting

Properties and specific commands of this target are as follows.

**Table 5-33 Properties of '/repository/remotesetting'**

Property	Access	Description
RemoteRepositoryAddress	read/write	Sets OS IP address of the other Manager PC.
RemoteRepositoryPort	read/write	Sets port number of the other Manager PC.
RemoteRepositoryPassword	read/write	Sets password that is configured in [RepositoryPassword] on the other Manager PC.

**Table 5-34 Specific commands of '/repository/remotesetting'**

Command	Description
set	Sets remote repository settings properties.

**Table 5-35 Specific option of '/repository/remotesetting'**

Option	Description
-f   -force	Even if it cannot be connected to the other Manager PC repository, properties are set by force.

#### Examples

'show' command enables you to view remote repository settings.

```
-> show /repository/remotesetting
ufip=/repository/remotesetting
ufit=remotesetting
Targets:
Properties:
  RemoteRepositoryAddress=192.168.0.100
  RemoteRepositoryPort=8080
  RemoteRepositoryPassword=*****
Verbs:
  cd
  exit
  help
  show
  set
```

#### Examples

'set' command enables you to set one or more remote repository settings properties. If there are multiple properties on the same command line, they must be separated by a space.

If you want to set repository location in remote, it is necessary to set RemoteRepositoryAddress, RemoteRepositoryPort, and RemoteRepositoryPassword properties.

```
set /repository/remotesetting RemoteRepositoryAddress=192.168.0.100 RemoteRepositoryPort=8080
RemoteRepositoryPassword=password
```

When the correct value is set, repository location is changed in remote.

.....  
**CHECK :**

- The following properties must be specified when repository location is set to remote.
  - RemoteRepositoryAddress
  - RemoteRepositoryPort

- RemoteRepositoryPassword
- In the case of the user authority is Operator, "Change Environment Setting" of the user level must be enabled.

### Examples

When you add *-force* option, properties are set by force.

```
set -force /repository/remotesetting RemoteRepositoryAddress=192.168.0.111
```

## 5.3.2 Adding update packages to repository

'load' command at below targets enables you to add or download update packages.

- /repository

Specific command of this target is as follow. There is no property for this target.

**Table 5-36 Specific command of '/repository'**

Command	Description
load	Downloads update packages from update package server. Adds update packages to repository.

Specific option of this command is as follow.

**Table 5-37 Specific options of '/repository'**

Option	Description
<i>-wait</i>	Watches it until the downloading of the update packages is completed. This option is valid only when you download without adding <i>-source</i> option.
<i>-source</i>	When you add the specified update package to repository, you specify the update package file path.
<i>-f</i>   <i>-force</i>	Adds the update package specified by <i>-source</i> option to the repository, even if it is not necessary for the components.

### Examples

'load' command enables you to download update packages.

```
-> load /repository
COMMAND COMPLETED
Downloading update packages. Run the show command to the repository and you can confirm the
command's result from UpdatePkgLatestDownloaded property.
```

The download process will start and return to the input prompt. To confirm this command results, run 'show' command and confirm UpdatePkgLatestDownloaded property. This value is updated at the downloading end time.

```
UpdatePkgLatestDownloaded=2011/04/01 12:00:00
```

### Examples

'load -wait' command enables you to watch it until downloading is completed.

```
-> load -wait /repository
Downloading update packages.
Press Ctrl + D to stop monitoring.
.....
Downloading update packages was finished. Please press Ctrl + D.
```

The download process will start and progress "..." will be displayed. When downloading is finished, an end message is displayed. After the end message, you need to press "Ctrl + D" key and return to the input prompt.

### Examples

When you stop monitoring during downloading, press "Ctrl + D" key and return to the input prompt.

```
-> load -wait /repository
Downloading update packages.
Press Ctrl + D to stop monitoring.
...

Monitoring was stopped. Run the show command to the repository and you can confirm the command's
result from UpdatePkgLatestDownloaded property.
```

### Examples

'load -source' command enables you to add update packages to repository. Specify the path of the update package file. When you add -source option, you can add update package which is not necessary for components.

```
-> load -source C:\temp\package_634335370718834422.zip /repository
COMMAND COMPLETED
Added specified update packages.
"System BIOS_Windows_4.0_02172011105550"
```

## 5.3.3 Removing update packages from repository

### 5.3.3.1 Removing all update packages

Removing all update packages is located at the following target.

- /repository/uppkgs

Properties and specific commands of this target are as follows.

**Table 5-38 Property of '/repository/uppkgs'**

Property	Access	Description
EntryCount	read	Displays a number of update packages managed by repository.
Progress	read	If archiving update packages is in execution, displays its progress.

**Table 5-39 Specific command of '/repository/uppkgs'**

Command	Description
delete	Removes all update packages.
dump	Archives update packages related to the specified module into an update package archive.
stop	Cancels creating an update package archive if it is in execution.

Specific option of this command is as follow.

**Table 5-40 Specific option of '/repository/uppkgs'**

Option	Description
-f   -force	Even if the repository is shared and the specified update packages are referred to by other repository, the update packages are deleted.

### Examples

'delete' command enables you to remove all update packages.

```
-> delete /repository/uppkgs
COMMAND COMPLETED
"NEC ExpressUpdate Agent_Windows_3.00_03022011171440" was deleted.
"NEC ExpressUpdate Agent Linux 3.00_03102011100740" was deleted.
```

.....  
**CHECK :**

- In the case of the user authority is Operator, "Change Environment Setting" of the user level must be enabled.
- .....

.....  
**TIP :**

- When you delete by force, update packages in use by other Manager PC can be removed.
- .....

### 5.3.3.2 Removing the update package

Removing update package is located at the following target.

- /repository/uppkgs/<uppkg name>

Specific command of this target is as follow. There is no property for this target.

**Table 5-41 Specific command of '/repository/uppkgs/<uppkg name>'**

Command	Description
delete	Removes update package.

Specific option of this command is as follow.

**Table 5-42 Specific option of '/repository/uppkgs/<uppkg name>'**

Option	Description
-f   -force	Even if the repository is shared and the specified update package is referred to by other repository, the update package is deleted.

#### Examples

'delete' command enables you to remove the update package.

```
-> delete /repository/uppkgs/"System BIOS_Windows_4.0_02172011105550"  
COMMAND COMPLETED  
"System BIOS Windows 4.0 02172011105550" was deleted.
```

.....  
**CHECK :**

- In the case of the user authority is Operator, "Change Environment Setting" of the user level must be enabled.
- .....

### 5.3.4 Saving update packages

#### 5.3.4.1 Saving update packages all together

Saving update packages all together is located at the following target.

- /repository/uppkgs

Specific option of this command is as follow.

**Table 5-43 Specific options of 'dump /repository/uppkgs'**

Option	Description
<i>-destination &lt;path&gt;</i>	Specifies the path to the directory or zip file where the update package archive to be copy.
<i>-f   -force</i>	If an existing file path is specified, remove it and create new file.

#### Example

`dump /repository/uppkgs` command enables you to archive all update packages into an update package archive. If starting command succeeds, all update packages to be archived are listed.

```
-> dump -destination C:\temp /repository/uppkgs
COMMAND COMPLETED
"ExpressUpdate Agent_Linux_3.00_20110310100740"
"ExpressUpdate Agent_Windows_3.00_20110302171440"
The process to save update packages was started. To confirm its progress, execute 'show' command on update
packages element and refer to Progress property.
C:\temp\UpdatePackageArchive_20120701.zip
```

#### 5.3.4.2 Saving an update package

Saving an update packages is located at the following target.

- /repository/uppkgs/<uppkg name>

Specific option of this command is as follow.

**Table 5-44 Specific options of 'dump /repository/uppkgs/<uppkg name>'**

Option	Description
<i>-destination &lt;path&gt;</i>	Specifies the path to the directory or zip file where the update package archive to be copy.
<i>-f   -force</i>	If an existing file path is specified, remove it and create new file.

#### Example

`dump /repository/uppkgs/<uppkg name>` command enables you to archive an update package into an update package archive. If starting command succeeds, an update package to be archived is listed.

```
-> dump -destination C:\temp /repository/uppkgs/"ExpressUpdate Agent_Windows_3.00_20110302171440"
COMMAND COMPLETED
"ExpressUpdate Agent_Windows_3.00_20110302171440"
The process to save update packages was started. To confirm its progress, execute 'show' command on update
package element and refer to Progress property.
C:\temp\UpdatePackageArchive_20120701.zip
```

## 5.3.5 Update packages information

### 5.3.5.1 Update packages information

Information about update packages is located at the following target.

- /repository/uppkgs

Specific option of this command is as follow.

**Table 5-45 Specific options of 'dump /repository/uppkgs/<uppkg name>'**

Option	Description
<i>-d   -display euform=cmp</i>	Displaying ExpressUpdate information by component.
<i>-d   -display euform=model</i>	Displaying ExpressUpdate information by model.

#### Examples

'show' command enables you to view information about update packages.

```
-> show /repository/uppkgs
ufip=/repository/uppkgs
ufit=uppkgs
Targets:
  "NEC ExpressUpdate Agent_Linux_3.00_20110310100740"
  "NEC ExpressUpdate Agent_Windows_3.00_20110302171440"
Properties:
  EntryCount=2
Verbs:
  cd
  exit
  help
  show
  delete
```

#### Examples

'show' command with "-d euform=cmp" option enables you to view information about update packages by component.

```
-> show -d euform=cmp /repository/uppkgs
Server01
  "ExpressUpdate Agent_Linux_3.00_20110310100740"
Server02
  "ExpressUpdate Agent_Windows_3.00_20110302171440"
```

#### Examples

'show' command with "-d euform=model" option enables you to view information about update packages by model.

```
-> show -d euform=model /repository/uppkgs
"Express5800/110Ge-S"
  "ExpressUpdate Agent_Linux_3.00_20110310100740"
"Express5800/R120b-1"
  "ExpressUpdate Agent_Windows_3.00_20110302171440"
```

### 5.3.5.2 The update package information

Information about the update package is located at the following target.

- /repository/uppkgs/<uppkg name>

Property of this target is as follow. There is no specified command for this target.

**Table 5-46 Properties of '/repository/uppkgs/<uppkg name>'**

Property	Access	Description
Module	read	Displays the name of firmware or software.
Version	read	Displays the version of the update package.
Release	read	Displays the release date of the update package.
Target	read	Displays the operating system name that the update package supports.
Model	read	Displays the model name of the component that the update package supports.
EstimatedTime	read	Displays the estimate of the time to install the update package.
InstallEstimatedTime	read	Displays the estimate of the time to install, when the module supports installation.
UninstallEstimatedTime	read	Displays the estimate of the time to uninstall, when the module supports uninstallation.
Reboot	read	Displays whether that the selected update package requires a reboot after the installation. <ul style="list-style-type: none"> <li>• NECESSITY</li> <li>• UNNECESSITY</li> </ul>
Severity	read	Displays the severity of the update package. <ul style="list-style-type: none"> <li>• LOW</li> <li>• MEDIUM</li> <li>• HIGH</li> </ul>
ExpressUpdateSupported	read	Displays whether the update package supports automatic updating by NEC ExpressUpdate. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
DowngradeSupported	read	Displays whether the update package supports downgrade. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
MultipleModelSupported	read	Displays whether the update package supports multiple mode of component. <ul style="list-style-type: none"> <li>• SUPPORTED</li> <li>• UNSUPPORTED</li> </ul>
OtherUsed	read	Displays whether the update package is in use by other NEC ESMPRO Manager.. <ul style="list-style-type: none"> <li>• UNOCCUPIED</li> <li>• DURING USE</li> </ul>

## Examples

'show' command enables you to view information about the update package.

```
-> show /repository/uppkggs/"NEC ExpressUpdate Agent_Windows_3.00_20110302171440"  
ufip=/repository/uppkggs/ "NEC ExpressUpdate Agent_Windows_3.00_20110302171440"  
ufit="NEC ExpressUpdate Agent_Windows_3.00_20110302171440"  
Targets:  
  readme  
Properties:  
  Module=NEC ExpressUpdate Agent  
  Version=3.00  
  Release= 4/7/2011 20:27:25  
  Target=Windows Server 2003 Enterprise Edition  
          Windows Server 2003 Standard Edition  
          Windows Server 2003 R2 Enterprise Edition  
          Windows Server 2003 R2 Standard Edition  
  Model=Express5800/E120b-1  
          Express5800/T120a-M  
  EstimatedTime=180s  
  InstallEstimatedTime=120s  
  UninstallEstimatedTime=300s  
  Reboot=UNNECESSITY  
  Severity=-  
  ExpressUpdateSupported=SUPPORTED  
  DowngradeSupported=UNSUPPORTED  
  MultipleModelSupported=SUPPORTED  
  OtherUsed=UNOCCUPIED  
Verbs:  
  cd  
  exit  
  help  
  show  
  delete
```

### 5.3.5.3 Readme file information

After saving the readme file, you can view the readme file written notes about the update package. Information about the readme file in the update package is located at the following target.

- /repository/uppkgs/<uppkg name>/readme

Specific command of this target is as follow. There is no property for this target.

**Table 5-47 Specific command of '/repository/uppkgs/<uppkg name>/readme'**

Command	Description
dump	Saves the readme file to specified directory.

**Table 5-48 Specific option of '/repository/uppkgs/<uppkg name>/readme'**

Option	Description
<i>-destination</i>	Specifies the directory to save the readme file. Required option.
<i>-f</i>   <i>-force</i>	When there is a same name file in the directory of the destination, the file is overwritten.

.....  
**CHECK :**

- The readme file name depends on the update package. You can't specify the readme file name when you save it.
- .....

#### Examples

'dump' command enables you to save the readme file to specified directory. Adds *-destination* option and specifies the path of the directory. When you add *-force* option, the readme file is overwritten.

```
->      dump      -destination      C:¥temp      /repository/uppkgs/"NEC      ExpressUpdate
Agent_Linux_3.00_20110310100740"/readme
COMMAND COMPLETED
C:¥temp¥readme_en.txt
```

When the command succeeds, the readme file path is displayed.

```
C:¥temp¥readme_en.txt
```

## Chapter6 Log management

### 6.1 Logging

You can get the following logs.

- NEC ESMPRO Manager application log
- NEC ExpressUpdate Agent log

#### 6.1.1 Application log list

Information of NEC ESMPRO Manager application logs is located at the following target.

- /logs

Properties and specific commands of this target are as follows.

**Table 6-1 Properties of '/logs'**

Property	Access	Description
EntryCount	read	Displays the number of application log.
MaxEntryCount	read	Displays the maximum number of application log.

**Table 6-2 Specific commands of '/logs'**

Command	Description
dump	Saves NEC ESMPRO Manager application log to the specified directory. File is saved in zip format. When a file name is not included in the path, LOG.zip file is saved.

**Table 6-3 Specific option of '/logs'**

Option	Description
<i>-destination</i>	Specifies the destination path of the directory or the file name. Absolute path and relative path can be specified. Required option.
<i>-f   -force</i>	When there is a same name file in the destination directory, the file is overwritten.

#### Examples

'show' commands enable you to view the list of NEC ESMPRO Manager application log.

```
-> show /logs
ufip=/logs
ufit=/logs
Targets:
  log0
  log1
  log2
  log3
  log4
  log5
  log6
  log7
  log8
  log9
  log10
  ...
  log74
Properties:
  EntryCount=75
  MaxEntryCount=2000
Verbs:
  cd
  exit
  help
  show
  dump
```

## Examples

'dump' commands enable you to save application logs to the specified directory. Add *-destination* option, and specify the directory path to save file.

The following shows an example.

```
-> dump -destination C:¥temp
COMMAND COMPLETED
C:¥temp¥LOG.zip
```

If you want to save the application log file any name, specify the zip file name to the path and execute commands.

```
dump -destination C:¥temp¥application_log.zip /logs
```

When you add *-force* option, the zip file is overwritten.

```
dump -destination C:¥temp¥application_log.zip -force /logs
```

## 6.1.2 Application log

Information of NEC ESMPRO Manager application log is located at the following target.

- /logs/<log>

Property of this target is as follow. There is no specified command for this target.

**Table 6-4 Properties of '/logs<log>'**

Property	Access	Description
Type	read	Displays the type of application log. <ul style="list-style-type: none"><li>• INFORMATION</li><li>• WARNING</li><li>• ERROR</li></ul>
ComponentName	read	Displays the component name.
IpAddress	read	Displays the OS IP address of the component.
BmcIpAddress	read	Displays the BMC IP address of the component.
Date	read	Displays the date when the application log was registered.
User	read	Displays the user who executed this operation.
Contents	read	Displays the application log.

## Examples

'show' commands enable you to view the NEC ESMPRO Manager application log.

```
-> show /logs/log10
ufip=/logs/log10
ufit=log10
Targets:
Properties:
  Type=INFORMATION
  ComponentName=Server01
  IpAddress=192.168.0.2
  BmcIpAddress=192.168.0.3
  Date=2011/03/01 12:00:00
  User=-
  Contents=The component was added.
Verbs:
  cd
  exit
  help
  show
```

### 6.1.3 NEC ExpressUpdate Agent log

Information of NEC ExpressUpdate Agent log is located at the following target.

- /cmps/<component name>/map/agtlogs/expupagtlog

.....  
**IMPORTANT :**

- In <component name>, specify the component that the update function via NEC ExpressUpdate Agent is effective.
  - To get NEC ExpressUpdate Agent log, NEC ExpressUpdate Agent must be running.
- .....

Specific command of this target is as follow. There is no property for this target.

**Table 6-5 Specific commands of '/cmps/<component name>/map/agtlogs/expupagtlog'**

Command	Description
dump	Saves NEC ExpressUpdate Agent log to the specified directory. File is saved in zip format.

**Table 6-6 Specific options of '/cmps/<component name>/map/agtlogs/expupagtlog'**

Option	Description
-destination	Specifies the destination path of the directory or the file name. Absolute path and relative path can be specified. Required option.
-f  -force	When there is a same name file in the destination directory, the file is overwritten.

#### Examples

'show' commands enable you to view NEC ExpressUpdate Agent log.

```
-> show /cmps/Server01/map/agtlogs/expupagtlog
ufip=/cmps/Server01/map/agtlogs/expupagtlog
ufit=expupagtlog
Targets:
Properties:
Verbs:
  cd
  exit
  help
  show
  dump
```

#### Examples

'dump' commands enable you to save NEC ExpressUpdate Agent log to the specified directory. Add -destination option, and specify the directory path to save file.

```
-> dump -destination C:\temp /cmps/Server01/map/agtlogs/expupagtlog
COMMAND COMPLETED
C:\temp\eualog1.zip
```

If you want to save NEC ExpressUpdate Agent log file any name, specify the zip file name to the path and execute commands.

```
dump -destination C:\temp\eualog.zip /cmps/Server01/map/agtlogs/expupagtlog
```

When you add -force option, the zip file is overwritten.

```
dump -destination C:\temp\eualog.zip -force /cmps/Server01/map/agtlogs/expupagtlog
```

## Chapter7 Troubleshooting

---

This section describes the error message and the coping method for it.

### 7.1 Error message

Table 7-1 Error messages

Error Message	What to do
User name or password is not correct.	Please confirm the user name and the password, and please input again.
Failed to connect to NEC ESMPRO Manager.	■ Windows OS: Please confirm that the NEC ESMPRO Manager service (ESMPRO/SM Common Component) is running.

## Chapter8 Terminology

**Table 8-1 Terminology**

<b>Term</b>	<b>Description</b>
CLI	Command Line Interface
BMC	Baseboard Management Controller The management controller to manage the interface between system management software and platform hardware.
DMTF	Distributed Management Task Force An industry standard body that defines WBEM standards for the industry.
SMASH	Systems Management Architecture for Server Hardware A suite of specifications that deliver industry standard protocols to increase productivity of the management of a data center.
Address Space	A set of instances that represent managed element or provided functions. These instances are accessed using a unique path.
Managed Element	An instance of managed element or provided function on NEC ESMPRO Manager. It constructs the address space.
UFiT	User Friendly instance Tag User-friendly identifier for a specific instance of a CIM class.
UFiP	User Friendly instance Path The unique path to an instance formed by concatenating the UFiTs of each instance from the root instance to the terminating instance.
Component	An object that is managed by NEC ESMPRO Manager.
NEC ExpressUpdate	The function that manages versions of modules like firmware and software on the managed server and that updates the modules. Available since NEC ESMPRO Manager Ver5.1.
NEC ExpressUpdate Agent	Software that provides NEC ExpressUpdate function. It is installed on the managed component and communicates with NEC ESMPRO Manager.
Module	The module like firmware and software.
Update package	The package which the update tool of the module is included in.
Update package server	The update package server from where the repository downloads update packages.
Repository	The component of the NEC ESMPRO Manager for NEC ExpressUpdate that downloads update packages from the update package server and manages them. Available since NEC ESMPRO Manager Ver5.1.

## Chapter9 Appendix

### 9.1 XML Schema

#### 9.1.1 XML Schema for request file

XML schema of the request XML is as below.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">

  <!-- command request -->
  <xsd:element name="request">
    <xsd:complexType>
      <xsd:choice minOccurs="0" maxOccurs="unbounded">
        <xsd:element name="cd" type="CommonRequestType"/>
        <xsd:element name="create" type="CommonRequestType"/>
        <xsd:element name="delete" type="CommonRequestType"/>
        <xsd:element name="dump" type="CommonRequestType"/>
        <xsd:element name="exit" type="CommonRequestType"/>
        <xsd:element name="help" type="CommonRequestType"/>
        <xsd:element name="load" type="CommonRequestType"/>
        <xsd:element name="reset" type="CommonRequestType"/>
        <xsd:element name="set" type="CommonRequestType"/>
        <xsd:element name="show" type="CommonRequestType"/>
        <xsd:element name="start" type="CommonRequestType"/>
        <xsd:element name="stop" type="CommonRequestType"/>
        <xsd:element name="oemverb" type="OemverbRequestType"/>
        <xsd:element name="include" type="Include" minOccurs="0" maxOccurs="unbounded" />
      </xsd:choice>
    </xsd:complexType>
  </xsd:element>

  <!-- command request common type -->
  <xsd:complexType name="CommonRequestType">
    <xsd:sequence>
      <xsd:element name="abort" type="xsd:boolean" minOccurs="0" />
      <xsd:element name="instance" type="InstanceRequestType" maxOccurs="unbounded" />
      <xsd:element name="options" type="Options" minOccurs="0" />
    </xsd:sequence>
  </xsd:complexType>

  <!-- command request oemverb type -->
  <xsd:complexType name="OemverbRequestType">
    <xsd:sequence>
      <xsd:element name="verbname" type="xsd:string" />
      <xsd:element name="abort" type="xsd:boolean" minOccurs="0" />
      <xsd:element name="instance" type="InstanceRequestType" minOccurs="0"
maxOccurs="unbounded" />
      <xsd:element name="options" type="Options" minOccurs="0" />
    </xsd:sequence>
  </xsd:complexType>

  <!-- instance request type -->
```

```

<xsd:complexType name="InstanceRequestType">
  <xsd:sequence>
    <xsd:element name="abort" type="xsd:boolean" minOccurs="0" />
    <xsd:element name="ufip" type="xsd:string" />
    <xsd:element name="options" type="Options" minOccurs="0" />
    <xsd:element name="properties" type="PropertiesRequestType" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- properties request type -->
<xsd:complexType name="PropertiesRequestType">
  <xsd:sequence>
    <xsd:element name="property" type="PropertyRequestType" minOccurs="0"
maxOccurs="unbounded" />
  </xsd:sequence>
</xsd:complexType>

<!-- property request type -->
<xsd:complexType name="PropertyRequestType">
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" />
    <xsd:element name="value" type="ValueRequestType" />
  </xsd:sequence>
</xsd:complexType>

<!-- command request options -->
<xsd:complexType name="Options">
  <xsd:sequence>
    <xsd:element name="option" type="Option" minOccurs="0" maxOccurs="unbounded" />
  </xsd:sequence>
</xsd:complexType>

<!-- command request option -->
<xsd:complexType name="Option">
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" />
    <xsd:element name="value" type="ValueRequestType" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- value request type -->
<xsd:complexType name="ValueRequestType">
  <xsd:sequence>
    <xsd:element name="val" type="xsd:string" />
  </xsd:sequence>
</xsd:complexType>

<!-- command request include info -->
<xsd:complexType name="Include">

```

```
<xsd:sequence>
  <xsd:element name="file" type="xsd:string" />
  <xsd:element name="abort" type="xsd:boolean" minOccurs="0" />
</xsd:sequence>
</xsd:complexType>
</xsd:schema>
```

## 9.1.2 XML Schema for response file

XML schema of the response XML is as below.

```
<?xml version="1.0" encoding="UTF-8"?>
<xsd:schema xmlns:xsd="http://www.w3.org/2001/XMLSchema">

  <!-- command response -->
  <xsd:element name="response">
    <xsd:complexType>
      <xsd:sequence>
        <xsd:element name="command" type="CommandInputline" />
        <xsd:element name="cmdstat" type="CommandStatus" />
        <xsd:choice minOccurs="0">
          <xsd:element name="cd" type="CdResponseType"/>
          <xsd:element name="create" type="CreateSetResponseType"/>
          <xsd:element name="delete" type="DeleteResponseType"/>
          <xsd:element name="dump" type="DumpLoadResponseType"/>
          <xsd:element name="exit" type="ExitResponseType"/>
          <xsd:element name="help" type="HelpResponseType"/>
          <xsd:element name="load" type="DumpLoadResponseType"/>
          <xsd:element name="reset" type="ResetStartStopResponseType"/>
          <xsd:element name="set" type="CreateSetResponseType"/>
          <xsd:element name="show" type="ShowResponseType"/>
          <xsd:element name="start" type="ResetStartStopResponseType"/>
          <xsd:element name="stop" type="ResetStartStopResponseType"/>
          <xsd:element name="oemverb" type="OemverbResponseType"/>
        </xsd:choice>
        <xsd:element name="oemdata" type="OemdataCommonType" minOccurs="0" />
      </xsd:sequence>
    </xsd:complexType>
  </xsd:element>

  <!-- command input line -->
  <xsd:complexType name="CommandInputline">
    <xsd:sequence>
      <xsd:element name="inputline" type="xsd:string" />
    </xsd:sequence>
  </xsd:complexType>

  <!-- command status -->
  <xsd:complexType name="CommandStatus">
    <xsd:sequence>
      <xsd:element name="status" type="xsd:int" />
      <xsd:element name="status_tag" type="xsd:string" />
      <xsd:sequence minOccurs="0">
        <xsd:element name="error" type="xsd:int" />
        <xsd:element name="error_tag" type="xsd:string" />
      </xsd:sequence>
    </xsd:sequence>
  </xsd:complexType>
</xsd:schema>
```

```

<!-- cd command response type -->
<xsd:complexType name="CdResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="ufip" type="xsd:string" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- create, set command response type -->
<xsd:complexType name="CreateSetResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="instance" type="InstancePropertyType" minOccurs="0" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- delete command response type -->
<xsd:complexType name="DeleteResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="target" type="TargetReferenceType" minOccurs="0" maxOccurs="unbounded" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- dump, load command response type -->
<xsd:complexType name="DumpLoadResponseType">
  <xsd:choice minOccurs="0">
    <xsd:sequence>
      <xsd:element name="source" type="Path" minOccurs="0"/>
      <xsd:element name="destiation" type="Path" minOccurs="0"/>
    </xsd:sequence>
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- exit command response type -->
<xsd:complexType name="ExitResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- help command response type -->

```

```

<xsd:complexType name="HelpResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="text" type="xsd:string" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- reset, start, stop command response type -->
<xsd:complexType name="ResetStartStopResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="instance" type="InstanceReferenceType" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- show command response type -->
<xsd:complexType name="ShowResponseType">
  <xsd:choice minOccurs="0">
    <xsd:element name="target" type="TargetFullType" />
    <xsd:element name="help" type="Help" />
    <xsd:element name="examine" type="Examine" />
  </xsd:choice>
</xsd:complexType>

<!-- oemverb command response type -->
<xsd:complexType name="OemverbResponseType">
  <xsd:sequence>
    <xsd:element name="verbname" type="xsd:string" />
    <xsd:choice minOccurs="0">
      <xsd:element name="oemdata" type="OemdataOemverbType" />
      <xsd:element name="help" type="Help" />
      <xsd:element name="examine" type="Examine" />
    </xsd:choice>
  </xsd:sequence>
</xsd:complexType>

<!-- target full type -->
<xsd:complexType name="TargetFullType">
  <xsd:sequence>
    <xsd:element name="instance" type="InstanceFullType" />
    <xsd:element name="target" type="TargetFullType" minOccurs="0" maxOccurs="unbounded" />
  </xsd:sequence>
</xsd:complexType>

<!-- target reference type -->
<xsd:complexType name="TargetReferenceType">
  <xsd:sequence>
    <xsd:element name="instance" type="InstanceReferenceType" />

```

```

    <xsd:element name="target" type="TargetReferenceType" minOccurs="0" maxOccurs="unbounded"
  />
  </xsd:sequence>
</xsd:complexType>

<!-- instance full type -->
<xsd:complexType name="InstanceFullType">
  <xsd:sequence>
    <xsd:element name="ufit" type="Ufit" />
    <xsd:element name="ufip" type="xsd:string" />
    <xsd:element name="properties" type="PropertiesResponseType" minOccurs="0" />
    <xsd:element name="verbs" type="Verbs" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- instance property type -->
<xsd:complexType name="InstancePropertyType">
  <xsd:sequence>
    <xsd:element name="ufit" type="Ufit" />
    <xsd:element name="ufip" type="xsd:string" />
    <xsd:element name="properties" type="PropertiesResponseType" />
  </xsd:sequence>
</xsd:complexType>

<!-- instance reference type -->
<xsd:complexType name="InstanceReferenceType">
  <xsd:sequence>
    <xsd:element name="ufit" type="Ufit" />
    <xsd:element name="ufip" type="xsd:string" />
  </xsd:sequence>
</xsd:complexType>

<!-- properties response type -->
<xsd:complexType name="PropertiesResponseType">
  <xsd:sequence>
    <xsd:element name="property" type="PropertyResponseType" minOccurs="0"
maxOccurs="unbounded" />
  </xsd:sequence>
</xsd:complexType>

<!-- property response type -->
<xsd:complexType name="PropertyResponseType">
  <xsd:sequence>
    <xsd:element name="name" type="xsd:string" />
    <xsd:element name="value" type="ValueResponseType" />
  </xsd:sequence>
</xsd:complexType>

<!-- value response type -->

```

```

<xsd:complexType name="ValueResponseType">
  <xsd:sequence>
    <xsd:element name="val" type="xsd:string" />
    <xsd:element name="valstring" type="xsd:string" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- command response help -->
<xsd:complexType name="Help">
  <xsd:sequence>
    <xsd:element name="text" type="xsd:string" />
  </xsd:sequence>
</xsd:complexType>

<!-- command response examine -->
<xsd:complexType name="Examine">
  <xsd:sequence>
    <xsd:element name="text" type="xsd:string" />
  </xsd:sequence>
</xsd:complexType>

<!-- command response source or destination path-->
<xsd:complexType name="Path">
  <xsd:choice>
    <xsd:element name="ufip" type="xsd:string" />
    <xsd:element name="uri" type="xsd:string" />
  </xsd:choice>
</xsd:complexType>

<!-- command response support commands -->
<xsd:complexType name="Verbs">
  <xsd:sequence>
    <xsd:element name="standardverbs" type="xsd:string" minOccurs="0" />
    <xsd:element name="oemverbs" type="xsd:string" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- OemData common type -->
<xsd:complexType name="OemdataCommonType">
  <xsd:sequence>
    <xsd:element name="exitcode" type="xsd:int" minOccurs="0" />
    <xsd:element name="result" type="xsd:string" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- OemData oemverb type -->
<xsd:complexType name="OemdataOemverbType">
  <xsd:sequence>
    <xsd:element name="exitcode" type="xsd:int" minOccurs="0" />

```

```

    <xsd:element name="result" type="xsd:string" minOccurs="0"/>
    <xsd:element name="instance" type="InstancePropertyType" minOccurs="0" />
  </xsd:sequence>
</xsd:complexType>

<!-- command response UFiT -->
<xsd:complexType name="Ufit">
  <xsd:simpleContent>
    <xsd:extension base="xsd:string">
      <xsd:attribute name="ufct" use="required">
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:pattern value="[a-z]+"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
      <xsd:attribute name="instance" use="required">
        <xsd:simpleType>
          <xsd:restriction base="xsd:string">
            <xsd:pattern value="[0-9]+"/>
          </xsd:restriction>
        </xsd:simpleType>
      </xsd:attribute>
    </xsd:extension>
  </xsd:simpleContent>
</xsd:complexType>

</xsd:schema>

```