**AE5511**

**TrafficTesterPro**

**User's Manual**

**AS-84711-1EY**
**(Auto Test Supplement)**

Yokogawa Electric Corporation

# Table of Contents

# Chapter 1  Overview

This manual describes the Auto Test function of the AE5511, which can be executed by using telnet or the serial console.

## 1.1　　　Features

The AE5511 TrafficTesterPro features a command line–based control interface with automatic scripting and file management functions for carrying out automatic testing.   Commands for enabling settings, starting transmissions, and other functions can be executed through telnet or the serial console, and commands can be batch-executed using script files. The setting file to be enabled and the script file is transferred to the device by the user via FTP.   Statistical results files can also be retrieved using FTP.

Control I/F
- Login
- Execute commands
- Execute scripts
- Display during execution

**TELNET/serial console**

**FTP**

File control I/F
- Upload settings files
- Upload script files
- Retrieve results files
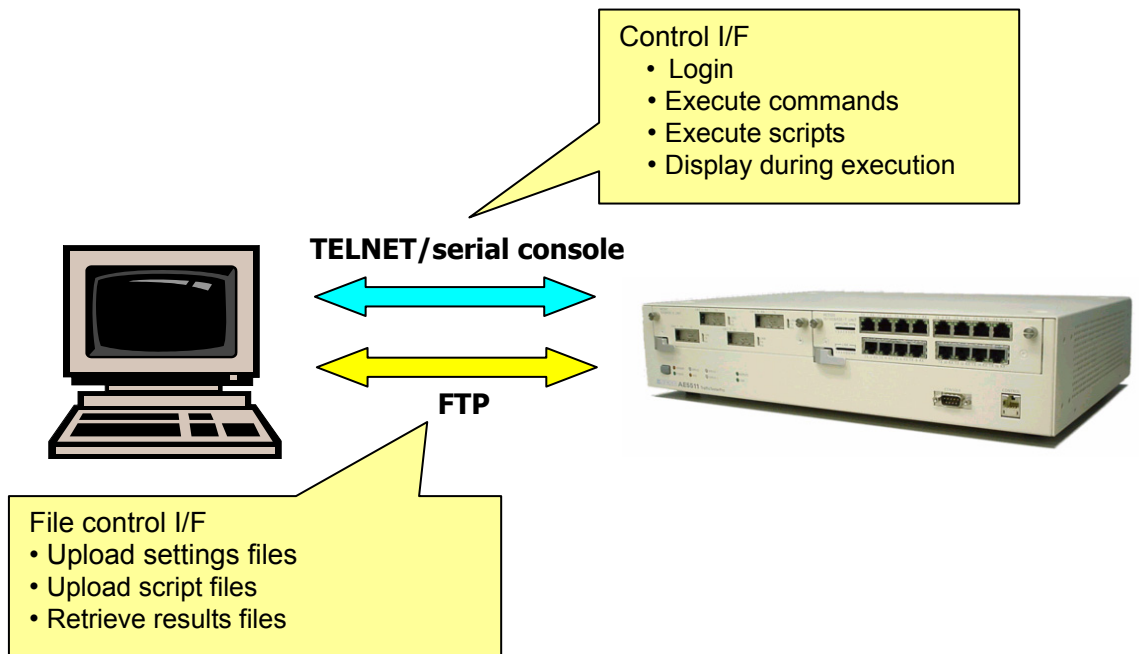
# Chapter 2  Functions

## 2.1  Control Interface

Table 2.1.1 Control interface

| Control I/F | Functions | Notes |
|---|---|---|
| Serial console | The AE5511 is connected to the COM port of the controller PC using the CONTROL connection cable that came with the instrument.  A console terminal program on the controller PC can then be used to send commands. | No login ID or password required.<br>38400 bps |
| Telnet | The AE5511 is connected to a LAN board on the controller PC using the CONSOLE connection cable that came with the instrument.  A telnet terminal program on the controller PC can then be used to send commands. | Login ID: ae5511<br>Password: [as set on the instrument] |

## 2.2  File Management Interface

Table 2.2.1 File management interface

| File Mgt. I/F | Functions | Notes |
|---|---|---|
| FTP | Setting files and script files can be sent to the instrument, and measurement results files can be acquired via LAN. | Login ID: ae5511<br>Password: [as set on the instrument] |

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## 2.3      List of Commands

After logging on with the control interface, the following commands can be executed.

Table 2.3.1 List of commands

| Type | Name | Command | More Information |
|------|------|---------|------------------|
| Measurement | Enable settings | update | Section 3.6 |
| | Start transmission | transmit start | Section 3.6.1.2 |
| | Stop transmission | transmit stop | Section 3.6.1.3 |
| | Stop statistics and save results | statistics stop | Section 3.6.1.4 |
| | Start statistics | statistics start | Section 3.6.1.5 |
| | Clear statistics counter | statistics clear | Section 3.6.1.6 |
| | Show statistics counter | show counter | Section 3.6.1.7 |
| | Insert frame | insert frame | Section 3.6.1.8 |
| | Insert bit error | insert biterror | Section 3.6.1.9 |
| | Auto-acquire MAC address | automac start | Section 3.6.1.10 |
| | Clear MAC address | automac clear | Section 3.6.1.11 |
| Scripting | Execute script | sh | Section 3.6.2 |
| | Stop script | "Ctrl+C"key | Section 3.6.2.2 |
| | Pause | waittime | Section 3.6.2.3 |
| | Echo back | echo on/off | Section 3.6.2.4 |
| | Display message | print | Section 3.6.2.5 |
| | Start identifier | #!filestart | Section 3.6.2.6 |
| | End identifier | #!fileend | Section 3.6.2.7 |
| | Comment | # | Section 3.6.2.8 |
| | Blank line | | Section 3.6.2.9 |
| Other | Log off | exit、quit | Section 3.6.3 |
| | Start/stop file management | filemode on/off | Section 3.6.3.2 |
| | Display file list | ls、dir | Section 3.6.3.3 |
| | Change directory | cd | Section 3.6.3.4 |
| | Clear all user data | allclear | Section 3.6.3.5 |
| | | | |

# Chapter 3 Operating Procedures

## 3.1　　Notes When Entering Commands

1. Valid Keys for Entering Control Commands
• Alphanumeric characters and symbols
• Backspace key
• [Ctrl + E], [Ctrl + C] (valid only for execution and interrupting execution of scripts)

2. Notes When Entering Commands
• Each line of the command may not exceed 512 characters (including the newline character).
• Command names and parameters are case insensitive.
• Do not include extensions with file names used within commands.
• Note the restrictions below regarding the characters that can be used for file and directory names.
  (Arbitrary names can be assigned when using FTP, but file names including unsupported characters cannot be used in commands and scripts.)
  • File names: a-z, 0-9, hyphen ( - ), and underscore ( _ ).
    Directory names: a-z, 0-9, ( - ), ( _ ), and "/[path]."
• Periods may not be used in relatives path names.
• If a carriage return is added on the right side of the terminal screen in the middle of entering a command, the text in the line above cannot be deleted using the Backspace key.

## 3.2　　Notes When Creating Scripts

1. File Creation
• Use the extension .cscp for script files.

2. Format
• Script files may contain up to one thousand lines (including blank lines and comments).
• Each line of a script file may not exceed 512 characters (including the newline character).
• Do not include extensions to file names used within commands.
• An absolute path should normally be used for specifying the file name and directory of a script file.
• Use a pound sign (#) at the beginning of comment lines.
• Use the start identifier "#!filestart" at the beginning of the script file.
• Use the end identifier "#!fileend" at the end of the script file.

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## 3.3　Basic Procedures for Remote Operations Using the Control Interface

Remote operations using telnet or the serial console are generally carried out as follows:

1. Connect the AE5511 to the controller PC
   For details on making connections, see Section 3.2, "Operating the Instrument" in the main AS-84711 user's manual.

2. Log in to the system.
   See the login screen in Section 3.5.

3. Enter a control command.
   See Section 2.3, "List of Commands."

4. End remote operations.
   Use the "Quit" or "Exit" command to log out.

## 3.4　Basic Procedures for Automatic Testing

Measurement operations involving the automatic testing function are generally carried out as follows:

1. Create a settings file
   Using the Web browser, log in in Control or Edit mode, then create a setting file.

2. Create a script file
   See section 3.2 for details on creating script files.

3. Transfer the setting file and script file
   See section 3.7 for details on file management.

4. Execute the script

5. Retrieve results files
   See section 3.7 for details on file management.

# 3.5 Login Screen

## 3.5.1 Login Screen

### 3.5.1.1 Console Start Screen

When the serial console is connected, the control startup screen is displayed as shown below. Type auto, then press the **Enter** key to advance to the login screen shown in section 3.5.1.2.

```
                Welcome to AE5511
                ANDO Electric Co.,Ltd.



Please Enter "login" or "auto" <CR> to login.
>
```

### 3.5.1.2 Login Screen

Immediately after opening a telnet connection or entering auto in the console startup screen, the logon screen shown in the figure below appears.   Enter Login: ae5511, and Password: None (no password is set on the instrument at the time of shipment).

```
Welcome to AE5511 (TrafficTesterPro)
ANDO Electric Co.,Ltd.

Login: ae5511            ⎫
Password:*****           ⎬  Login authentication
                         ⎭
```

### 3.5.1.3 Simultaneous Login Message

If another user is already logged in from a Web browser in Control mode, the message below is displayed.

```
Welcome to AE5511 (TrafficTesterPro)
ANDO Electric Co.,Ltd.

Already full mode logged in!
```

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### 3.5.2 When Login Is Successful

#### 3.5.2.1 Screen after Login (No Scripts Running)

```
Auto test mode - Logged in!

192.168.0.1>
```

The device name prompt appears.　If no device name has been set (as is so by default), the prompt is "*device IP address*>" (for telnet), or "AE5511>" for serial connection.

#### 3.5.2.2 Screen after Login (Scripts Running)

If you log on while a script is running, the message below is displayed.
To display the current state of script execution, press 1.　To stop the script, press 2.

```
Script running now.

Please select one of the followings.
1. Display the current state of script execution.
2. Terminate script execution.
[1..2]>
```

When 1 is selected

```
Script running now.
If you want to stop script, please push CTRL+C.
If you want to logout, please push CTRL+E.
```

When 2 is selected

```
Are you sure you want to stop script?[N/y]> y
Script was forcibly terminated.

Auto test mode - Logged in!

192.168.0.1>
Script execute was finished. Please input return key.
```

Select N to return to the previous screen. Select Y to stop the script and display the prompt.

# 3.6　　　Description of Commands

## 3.6.1　　　Measurement Commands

### 3.6.1.1　Enable Settings

This command lets you specify a settings file on the command line from which measurement parameters are read in and enabled on all units.

(1) Syntax

　　Update [setup file]

(2) Screen Example

```
192.168.0.1>Update /set_files/ttp_setup
Update············OK
MODE : Traffic
```

(3) Error Messages
　• When the setting file (or directory) is not found.
　　　Error: Specified file not found.
　• When the settings file is corrupt (syntax check error).
　　　Error : Setup file is broken.
　• When the UNIT structure differs
　　　Error: The unit is different between equipment and loadfile.

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### 3.6.1.2   Start Transmission

This command starts transmission on all ports, or on specified ports.

(1) Syntax

   Transmit start    all | unit [*no.*] port [*no.*]

You can also specify multiple ports at the same time by using an argument such as "port 1,3-4."

(2) Screen Example

```
192.168.0.1>Transmit start unit 1 port 1
transmit start   ··· OK
```

(3) Messages
  • When GBIC is not found on one of the specified ports.
    Message : GBIC <*no.*> is not found.

(4) Error Messages
  • When a specified UNIT or port is not found.
    Error: Invalid input arguments.

### 3.6.1.3  Stop Transmission

This command stops transmission on all ports, or on specified ports.

(1) Syntax

Transmit stop   all | unit [*no.*] port [*no.*]

You can also specify multiple ports at the same time, by using an argument such as "port 1,3-4."

(2) Screen Example

```
192.168.0.1>Transmit stop unit 1 port 1
transmit stop    ... OK
```

(3) Messages
  • When GBIC is not found on one of the specified ports.
     Message : GBIC *<no.>* is not found.

  • When XENPAK is not found on one of the specified ports.
    Message : XENPAK *<no.>* is not found.

(4) Error Messages
  • When a specified UNIT or port is not found.
     Error: Invalid input arguments.

### 3.6.1.4 Stop Statistics and Save Results

This command stops the statistics counter on all ports, and saves measured results to the file specified on the command line.　The measured results are displayed on screen.
The file is saved in both HTML and CSV formats.


(1) Syntax

Statistics stop [*file name*]

(2) Screen Example

```
192.168.0.1>Statistics stop /result_files/result
Statistics stop   ···OK
Result file save···OK
     ·
     ·
     ·
```

(3) Messages
　• When both stopping of statistics and saving of results were successful.
　　　Message : Statistics stop 　• • • OK
　　　Message : Result file save • • • OK
　• When statistics has already stopped (but the results file was created anyway)
　　　Message: Statistics has already stopped.
　　　Result file save...OK
　• When the results file already exists.
　　　Input result file (html) already exists. Do you overwrite?[N/y]
　　　Input result file (csv) already exists. Do you overwrite?[N/y]

### 3.6.1.5  Restart Statistics

This command starts the statistics counter on all ports.

(1) Syntax

    Statistics start

(2) Screen Example

```
192.168.0.1>Statistics start
Statistics start   ···OK
```

(3) Messages
  • When statistics has already started.
     Message: Statistics has already started.


### 3.6.1.6  Clear Statistics Counter

This command clears the statistics counter on all ports.

(1) Syntax

    Statistics clear

(2) Screen Example

```
192.168.0.1>Statistics clear
Statistics clear   ···OK
```

### 3.6.1.7   Show Statistics Counter

   This command displays the current counter value of the specified port and statistics item on screen. Also, it saves the value to a file.   You can also specify overwrite (>) or append (>>).

(1) Syntax

   Show counter (-t) all | unit [*no.*] port [*no.*] [*kind*] >(>>) *file name*

   You can also specify the -t option to display the time of the statistics at the end.

(2) Screen Example

```
192.168.0.1>Show counter unit 1 port 1 rx frame current
[UNIT1 AE5520 10/100BASE-T]
[PORT1]
rx_frame_current=0
```

(3) Selecting statistical items (indicated by the [*kind*] placeholder in step (1))

When in Traffic Mode

| | | Parameters | | Notes |
|---|---|---|---|---|
| tx | frame | | current/total | |
| | byte | | current/toal | |
| | rate | % | current | |
| | | bps | current | |
| | reply | | total | |
| | collision | | total | |
| | error | frame | current/total | |
| | | crc | current/total | |
| | | undersize | current/total | |
| | | oversize | current/total | |
| rx | frame | | current/total | |
| | byte | | current/toal | |
| | rate | % | current | |
| | | bps | current | |
| | pause | | total | |
| | error | frame | current/total | |
| | | crc | current/total | |
| | | undersize | current/total | |
| | | oversize | current/total | |
| | | alignment | current/total | Displayed on AE5520 only |
| | | symbol | current/total | |
| | ifg | max | total | |
| | | min | total | |
| | | avg | total | |

## When in Latency Mode

| | Parameters | | | Notes |
|---|---|---|---|---|
| tx | frame | | total | |
| | rate | % | current | |
| | | bps | current | |
| | collision | | total | |
| | error | frame | total | |
| | | | | |
| rx | frame | | total | |
| | rate | % | current | |
| | | bps | current | |
| | pause | | total | |
| | error | frame | total | |
| | latency | max | total | |
| | | min | total | |
| | | avg | total | |

## When in BERT Mode

| | Parameters | | | Notes |
|---|---|---|---|---|
| tx | biterror | frame | total | |
| | | bit | total | |
| | frame | | current/total | |
| | byte | | current/toal | |
| | rate | % | current | |
| | | bps | current | |
| | reply | | total | |
| | collision | | total | |
| | | frame | total | |
| | | crc | total | |
| | error | oversize | total | |
| rx | biterror | frame | current/total | |
| | | bit | current/total | |
| | nosync | | current/total | |
| | sync | byte | current/total | |
| | frame | | current/total | |
| | byte | | current/toal | |
| | rate | % | current | |
| | | bps | current | |
| | pause | | total | |
| | error | frame | current/total | |
| | | crc | current/total | |
| | | undersize | current/total | |
| | | oversize | current/total | |
| | | alignment | current/total | Displayed on AE5520 only |
| | | symbol | current/total | |

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### 3.6.1.8   Insert Frame

This command transmits an insert frame from all ports on which insert frames have been enabled.

(1) Syntax

    Insert frame

(2) Screen Example

```
192.168.0.1>Insert frame
Insert frame   ···OK
```

(3) Messages
  • When the insert frame setting on all ports is OFF
     Message: Frame insert disable in all ports.

(4) Error Messages
  • When the current mode is something other than Traffic mode
     Error: It can be executed only in TRAFFIC mode.


### 3.6.1.9   Insert Bit Error

This command adds one bit of bit error to the frames being transmitted on all ports.

(1) Syntax

    Insert biterror

(2) Screen Example

```
192.168.0.1>Insert biterror
Insert biterror   ···OK
```

(3) Messages
  • When the transmission setting on all ports is OFF
     Message: TX settings of all ports are off.

(4) Error Messages
  • When the current mode is something other than BERT mode
     Error: It can be executed only in BERT mode.

### 3.6.1.10  Auto-Acquiring the MAC Address

This command automatically acquires the destination MAC address on all ports.
The command is only available in Traffic mode.

(1) Syntax

    Automac start

(2) Screen Example

```
192.168.0.1> automac start
[UNIT1 AE5520 10/100BASE-T]
PORT1  : 00-01-E2-00-79-F1
PORT2  : 00-01-E2-00-79-F0
PORT3  : OFF
PORT4  : OFF
PORT5  : OFF
PORT6  : OFF
PORT7  : OFF
PORT8  : OFF
PORT9  : OFF
PORT10 : OFF
PORT11 : OFF
PORT12 : OFF
PORT13 : OFF
PORT14 : OFF
PORT15 : OFF
PORT16 : OFF
```

(3) Messages
  • When the automatic MAC address acquisition setting on all ports is OFF
      Message : MAC auto is all ports off.

(4) Error Messages
  • When the command is executed in a mode other than Traffic mode
    Error: It can be executed only in TRAFFIC mode.

### 3.6.1.11  Clear MAC Address

This command clears the acquired MAC address.

(1) Syntax

Automac clear

(2) Screen Example

```
192.168.0.1> automac clear
Auto mac clear    ... OK
```

(3) Error Messages
   • When the command is executed in a mode other than Traffic mode
     Error: It can be executed only in TRAFFIC mode.

## 3.6.2　　Scripting Commands

### 3.6.2.1　Execute Script

This command lets you specify a script file on the command line and execute the procedures indicated in the file. File names used within the script file (settings files, etc.) should be specified with an absolute path.　The script file is checked for proper syntax prior to execution.　See item (3) below for a listing of the syntax check items.　(A file overwrite check is performed as part of the syntax check.　If an existing file will be overwritten, the user is prompted to confirm this before execution of the script.)

(1) Syntax

　　sh (-f) [script file]

　　Adding the (-f) option bypasses the following user confirmation items.
　　　• Logging lock confirmation (to activate login lock)
　　　• File overwrite confirmation
　　　• Requirement to press Enter (or Return) upon conclusion of the script.
　　　　　(The prompt is displayed immediately after the script ends.)

(2) Screen Example

> Confirms whether to lock the login state. Select Y to prevent logout from occuring during execution of scripts, even if the login time expires.

```
172.20.4.68> sh /script_files/sample
Do you lock the login state?[N/y]> y
/Script running now.
If you want to stop script, please push CTRL+C.
If you want to logout, please push CTRL+E.
start
            :
            :
end

Script execute was finished. Please input return key.
```

(3) Script File Syntax Check

| | Item | Description | Notes |
|---|---|---|---|
| Syntax check | File start/stop identifier | • Presence/absence of start identifier<br>• Presence/absence of end identifier | |
| | Max. no. of characters per line, max. no. of lines | Max. no. of characters per line (512)<br>Max. no. of lines between start and end identifiers (1000) | |
| | Command syntax (type of command name and parameters, and range of values) | • Command name<br>• Parameter type relative to the command name<br>• Range of values relative to the command and parameters | |
| | Whether comments are correct | • Presence/absence of illegal comments (line starts with or without #)<br>• Checks for comments outside of the start/end identifiers | |
| File check | Check path and file name of argument | • Check for existence of absolute path (directory) specified in the argument<br>• Check for existence of file (in the absolute path) specified in the argument | |
| | Settings files specified in the script file | • Syntax check of settings file<br>• Check structure of the UNIT | |

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| | File overwrite | • Whether the same file name is specified in the overwrite | Query |
|---|---|---|---|
| Command check | Enable settings not performed during transmission | • Presence/absence of enabling of settings during transmission | |
| | Insert bit error | • Whether the mode is BERT during execution | |
| | Insert Frame | • Whether the mode is Traffic during execution | |
| | Individual start/stop transmission command | • Whether the specified UNIT and ports match those of the UNIT structure specified on the command line | |
| | Show statistics counter value command | • Whether the specified statistical items are in the mode of the setting file | |
| | | | |

### 3.6.2.2   Stop Script

This command stops the script being executed.

(1) Syntax

"Ctrl+C"

(2) Screen Example

```
    .
    .
Script was forcibly terminated.

Script execute was finished. Please input return key.
```

### 3.6.2.3   Pause (Script-Internal Command)

This command pauses the execution of the script for the specified amount of time.   The command is embedded in the script file.   The units of time are seconds, and the time can be specified in the range from 0 to 86400 (up to 24 hours).

(1) Syntax

   Waittime [sec]


### 3.6.2.4   Echo Back ON/OFF (Script-Internal Command)

This command turns display of the script execution status ON and OFF.   The command specifies whether or not to display the commands of the script file (this is the same as the Echo off and Echo on DOS commands).   The default setting is ON.


(1) Syntax

   Echo on
   Echo off


(2) Messages
   • When Echo back turned ON
      << echo on
   • When Echo back turned OFF
      << echo off


### 3.6.2.5   Display Messages (Script-Internal Command)

This command allows you to display arbitrary messages on screen.

(1) Syntax

   Print [*message*]

(2) Characters that can be displayed.

   ASCII codes: 0x09[TAB], 0x20–0x7E

> [TAB],[SPACE],!"#$%&'()*+'-./0123456789:;<=>?@ABCDEFGHIJKLMNOPQRSTUVWXY
> Z[¥]^_`abcdefghijklmnopqrstuvwxyz{|}~

### 3.6.2.6   Start Identifier

The start identifier is placed at the beginning of the script.

(1) Syntax

   #!filestart

### 3.6.2.7   End Identifier

The end identifier is placed at the end of the script.

(1) Syntax

#!fileend

### 3.6.2.8   Comment

Any text appearing after a pound sign (#) is considered to be a comment.   Comments are ignored, but counted as one line when between the start and stop identifiers.

(1) Syntax

#

### 3.6.2.9   Blank Lines

Blank lines are ignored, but each is counted as one line when between the start and stop identifiers.

# 3.6.3　Other Commands

### 3.6.3.1　Log Out

Exits login status of the automatic test.　A log out message is displayed for one second.

(1) Syntax
　　"Exit" or "Quit"

(2) Messages
　• If log out was successful.
　　　Logout Ae5511
　　　Thank you!

### 3.6.3.2　Start/Stop File Management

This command starts and stops the file management function.　File management using FTP is allowed only if file management has been started ("file mode" is ON).

(1) Syntax
　　Filemode On
　　Filemode OFF

(2) Messages
　　• When file mode is already ON.
　　　Message: The file mode is already on.
　　• When file mode is already OFF.
　　　Message: The file mode is already off.

### 3.6.3.3　Display File List

This command lets you display a list of files in the current directory.

(1) Syntax
　　"Ls" or "Dir"

### 3.6.3.4　Change Directory

This command changes the current directory.　If no arguments are specified, the directory changes to the root directory.

(1) Syntax
　　cd

### 3.6.3.5　Clear All User Data

This command deletes all user files and directories.

(1) Syntax
　　Allclear

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# 3.7 File Management

## 3.7.1 Overview

This section describes how to transfer settings and script files used for execution of automatic testing, and how to retrieve the test results.

When performing automatic testing, the settings and script files are transferred to the AE5511 via FTP, then the auto test is performed by running the script execution command.  The results files are saved to the AE5511, and can be retrieved using FTP.

# 3.7.2　File Transfer/Retrieval

### 3.7.2.1　Logging In

You can log in by clicking the FTP File Management button in the CGI login screen.　You can also log in using the Windows command prompt.　The following shows the log in method using the FTP File Management button in the CGI login screen.

Main Screen
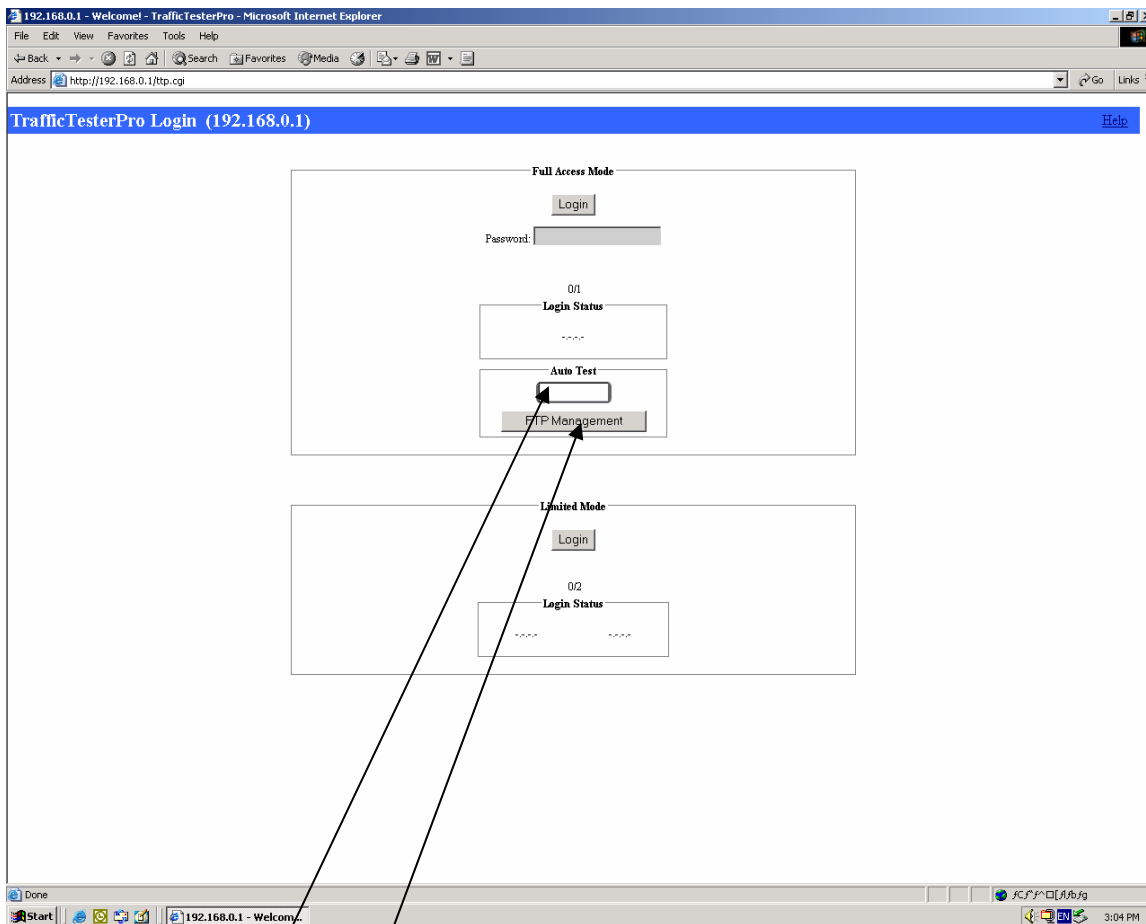


1.　2.

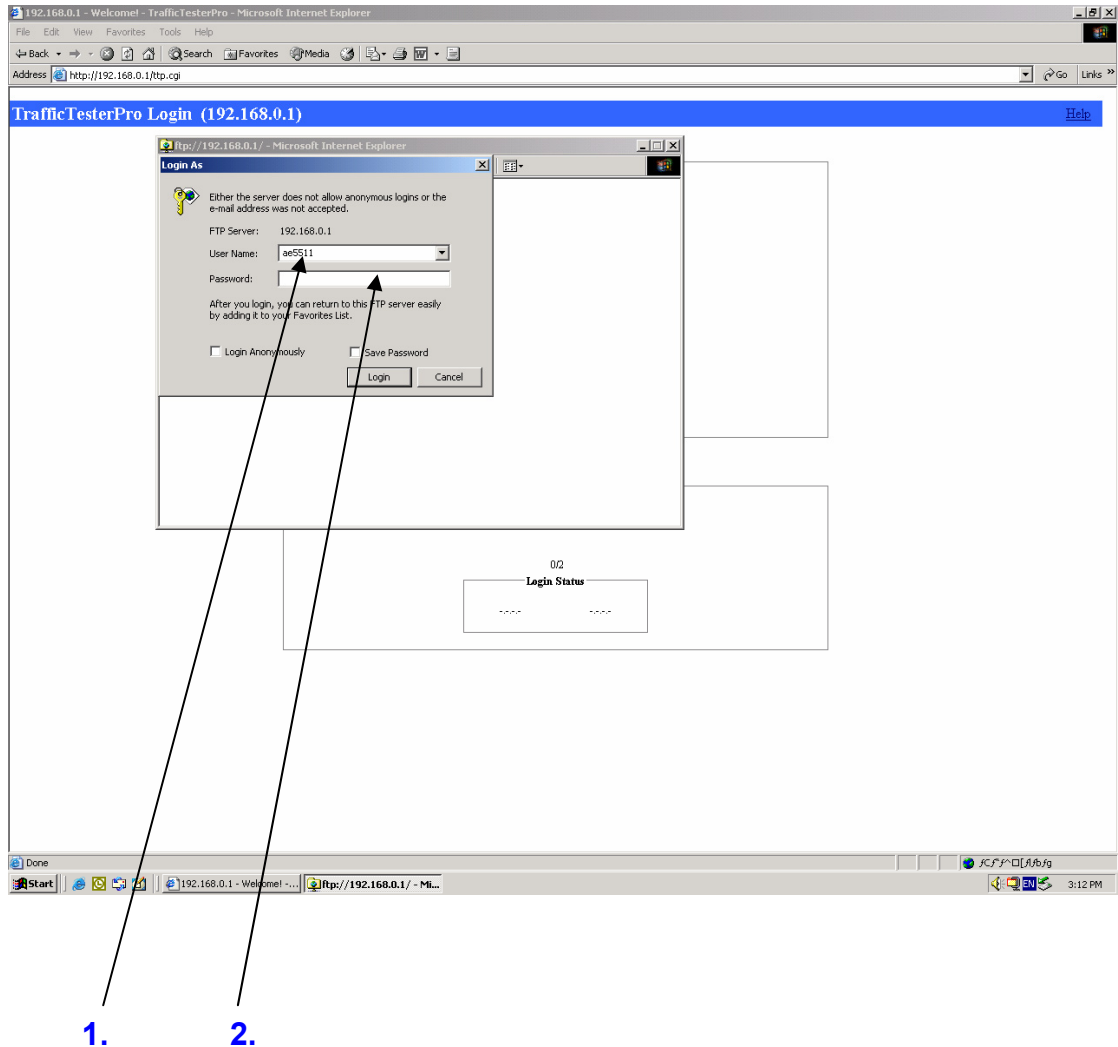| No. | Explanation of Function |
|-----|-------------------------|
| 1. | Displays the execution status of the auto test. "Testing" is displayed during the auto test. |
| 2. | Clicking the FTP File Management button displays the FTP login screen. |

(2) Login Screen



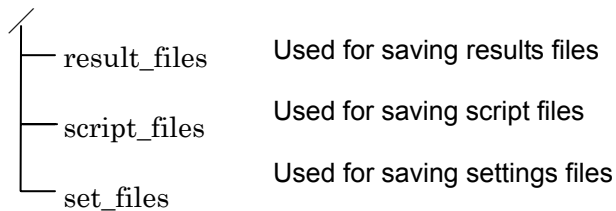| No. | Explanation of Function |
|---|---|
| **1.** | Input a user name of "ae5511." |
| **2.** | Input the password.　No password is set at the time of shipment, so you can leave this box blank. |

Note: When using Windows 98 Second Edition, drag-and-drop is not available when downloading with the browser's FTP function.　When downloading files, click the file name, then use [Folder copy (F)].

## 3.7.3    Default Directories

The default directories set for auto testing upon shipment from the factory are as follows.

```
├── result_files      Used for saving results files
│
├── script_files      Used for saving script files
│
│                     Used for saving settings files
└── set_files
```

- A sample script file, sample.scsp, is saved in the script_files directory.
- 500 megabytes are required for the auto test.   If the available space is less than 500 MB, a warning message is displayed.
- You can change the directory structure at will.
- Files used within the script file should be specified with an absolute path.
- Directory and file names are case insensitive.
- There are restrictions on the characters that can be used for file and directory names.   (Arbitrary names can be assigned when using FTP, but file names including unsupported characters cannot be used in commands and scripts.)
  File names:   a-z, 0-9, hyphen ( - ), and underscore ( _ )
    Directory names: a-z, 0-9, ( - ), ( _ ), and "/[path]."

# Chapter 4 Appendices

## Appendix A        Error Messages

| | | |
|---|---|---|
| | The account or password is invalid. | |
| | Login timed out. | |
| | The specified setup file(***.ptfs) does not exist. | |
| | Setup file is broken. | |
| | Timeout of update command occurred. | |
| | There is no unit, or unknown unit. | |
| | Command not found | |
| | Input of port specification form is invalid. | |
| | Invalid directory specification | |
| | Directory name is too long. | |
| | Invalid input arguments. | |
| | Invalid script. | |
| | The maximum number of script lines is exceeded. | |
| | It can be executed only in BERT mode. | |
| | It can be executed only in TRAFFIC mode. | |
| | No arguments are specified. | |
| | Saving file failed | |
| | Input command is too long. | |
| | Specified file not found. | |
| | Specified directory not found. | |
| | File name duplicates directory name. | |
| | The specified file name is incorrect. | |
| | Input file already exist. | |
| | Invalid redirect method(>,>>). | |
| | Specified script file not found. | |
| | The HTML file already exists. | |
| | The CSV file already exists. | |
| | The maximum number of characters in one script line is exceeded. | |
| | Start of script(#!filestart) doesn't exists in script file. | |
| | 2 or more start of script(#!filestart) exist in script file. | |
| | Command exists after end of script(#!filestart) | |
| | Input arguments aren't numerical characters. | |
| | Update command cannot be used while transmitting. | |
| | The unit is different between equipment and loadfile. | |
| | End of script(#!fileend) doesn't exists in script file. | |
| | There is no unit. | |
| | Redirect path is not specified. | |
| | Frame insert disable in all ports. | |
| | TX settings of all ports are off. | |
| | Invalid units/ports specification. | |

| | Statistics has already stopped. | |
|---|---|---|
| | Statistics has already started. | AS-84711-1EY |
| | The file mode is already on. | |
| | The file mode is already off. | |
| | The specified file already exists. | |
| | The specified HTML file already exists. | |
| | The specified CSV file already exists. | |
| | File name duplicates. | |
| | One or more warnings in script file. | |
| | There is no ports that can transmit. | |
| | There is no ports that can display. | |
| | Statistics result file is not specified. | |
| | | |

# Appendix B    Sample Script

```
#!filestart
#sample

echo on
Print "*********************"
Print "** Throughput START **"
Print "*********************"
Update /set_files/ttp_setup
Statistics Start
Statistics Clear
Transmit start unit 1 port 1,5,9,13
WaitTime 2
show counter unit 1 port 2,6,10,14 rx frame current > /result_files/rxframe_1
WaitTime 1
show counter unit 1 port 2,6,10,14 rx frame current > /result_files/rxframe_2
WaitTime 1
show counter unit 1 port 2,6,10,14 rx frame current > /result_files/rxframe_3
WaitTime 1
show counter unit 1 port 2,6,10,14 rx frame current > /result_files/rxframe_4
WaitTime 1
show counter unit 1 port 2,6,10,14 rx frame current > /result_files/rxframe_5
Transmit Stop all
Statistics Clear
Transmit start unit 1 port 2,6,10,14
WaitTime 2
Show counter unit 1 port 1,5,9,13 rx frame current > /result_files/rxframe_6
WaitTime 1
Show counter unit 1 port 1,5,9,13 rx frame current > /result_files/rxframe_7
WaitTime 1
Show counter unit 1 port 1,5,9,13 rx frame current > /result_files/rxframe_8
WaitTime 1
Show counter unit 1 port 1,5,9,13 rx frame current > /result_files/rxframe_9
WaitTime 1
Show counter unit 1 port 1,5,9,13 rx frame current > /result_files/rxframe_10
Transmit Stop all
WaitTime 1
Statistics Stop /result_files/result
Print "Throughput END"
#!fileend
```