



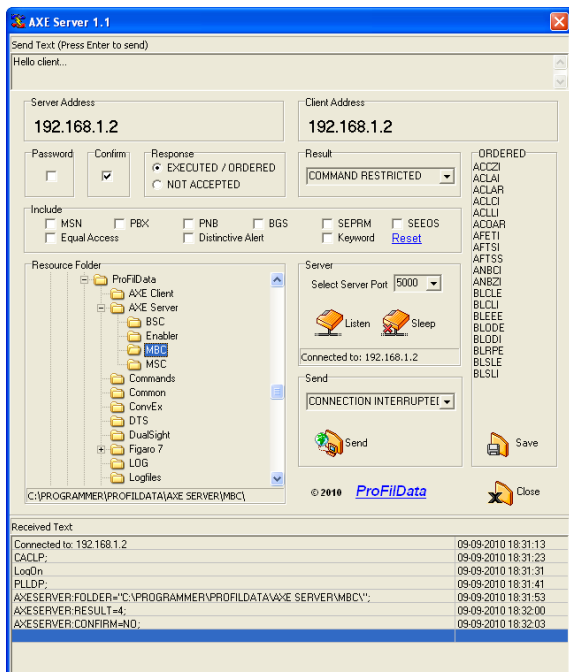
AXE Server

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Installation

Download Axeserver.exe from ftp.profildata.dk using usercode and password received in delivery mail. Run the installation file using the same password and open program from desktop icon or start menu entry. You should now see the user interface:



The application runs in any Windows environment and on most common hardware. The only requirement is an Ethernet board. It's recommended to use a fixed IP address, but it's not mandatory.

General

The AXE server is a simple AXE simulator designed to help developers working with the AXE interface. The server based program can act exactly as a live AXE with Ethernet connection and can serve any client that connects to the server socket from anywhere on the Internet. The program was originally developed to help during script writing and testing or in training and demonstration situations, where no live AXE is accessible.

The application can fully simulate the TCP/IP interface of an Ericsson IOG11, IOG20, APG30 or APG40 port.

Unlike the SEA environment, there is no intelligence behind, but the user can fully control the responses.

The application simulates:

- Usercode / password access
- Login string and command prompts
- Log on / Log off to command interpreter
- Any printout for all AXE application systems
- ORDERED, NOT ACCEPTED with selectable FAULT CODE and customized response
- TIME OUT and LOGGED OFF
- Command confirmation
- Date, time and incrementing NVT number
- Qualification on certain parameters (DEV, SNB, RC etc.)
- Forced command rejection.
- Provision of subscriber classes
- Remote management

Connection

At runtime the program reads the allocated IP address from the Windows socket and starts listening. The address is visible in the Server Address Box.



Server Address
192.168.1.2

Client Address
192.168.1.2

If the IP address is within a LAN, and you want to access the server from outside the LAN, you need to use the IP address of your router and forward the selected port to the displayed server address. The AXE server and a client terminal emulator can easily reside on the same PC and use the same IP address.

Server

Select Server Port 5000

 Listen  Sleep

You can use any valid port by entering the port value to the Select Server Port field, but it's recommended to use port 5000 thru 5111. An already established connection is disconnected when the port value is changed, and the server starts listening automatically. You can manually disconnect any connection by pressing the Sleep button, and the server will remain sleeping until the Listen button is pressed.

AXE port offset

5000 Normal access

5xx1 Print alarms on NVT or Alarm Terminal (not supported)

5x1x Specify NVT

51xx Logon to CP-SB

23 Telnet for use with APG protocol if connected to Eth1 in APG node (not supported)

xxxxx You can manually enter any port number acquired from e. g. SEA

Terminal Host Data

AXE LAN

Port 5000

Host 192.168.1.2

[Connect to LAN](#)

Connect Alarm Terminal

LAN

OVMNIP

SPA

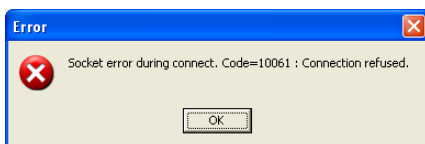
From your client application, use selected port and server address and order the clients Windows socket to connect. If the connection succeeds, you'll receive a header and a prompt from the server.

```
WO          PROFILDATA/MBC SERVER      NVT-100    TIME 100317 1308  PAGE 1
```

<

Certain MML commands will respond with a dialog prompt (:)

Otherwise you'll receive an error message will describe the problem.



Error message if a firewall is blocking the connection somewhere in the network.

Password

Check the password checkbox to initiate a usercode – password dialog to access the command interpreter.

USERCODE:

PASSWORD:

```
WO          PROFILDATA/ENABLER SERVER  NVT-101    TIME 100830 1854  PAGE 2
```

<

Confirm

Check the confirm checkbox to receive a confirmation prompt if result printout is "EXECUTED", "ORDERED" OR "NOT ACCEPTED".

```
<IODAC;
```

```
IODAC;
```

```
<;
```

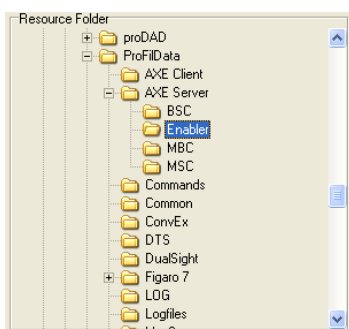
```
EXECUTED
```

Command Interpreter

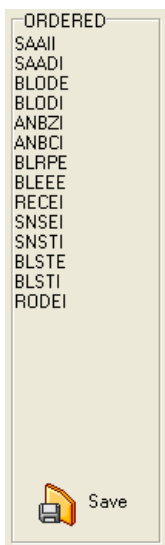
When a prompt is received on your client terminal, you can send MML commands towards the listening server. In general, there is no need to add parameters to the MML commands, since the server acts only on a few parameters. (Described later)

Sending a MML command towards the server will initiate a search for the command in the ORDERED list, to determine how to acknowledge the command. Next, a search for a matching log file in the pointed out directory is performed. If a match is found, the file contents are transmitted to the client. If no matching file is found, the command is looked up in the ORDERED list again, and a positive acknowledge will respond with an ORDERED ...COMMAND EXECUTED...sequence. Finally if no other responses are sent, the server will respond EXECUTED or NOT ACCEPTED .. FAULT CODE... as desired.

You can collect and keep logged command responses in unlimited directories each holding logged print outs for a specific Application Systems (AS).



Use Resource Folder tree to select a folder to search for a matching logfile. E. g. if the server receives the MML command LASIP:BLOCK=ALL; a search is made for a file named lasip.log in the Enabler folder. Parameter BLOCK is skipped so command LASIP; will be sufficient.



If no matching logfile is found, a search is made in the ORDERED list, and a match will result in:

```

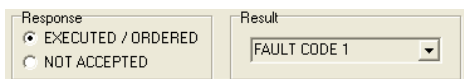
WO      PROFILDATA/ENABLER SERVER      NVT-101      TIME 100324 1642  PAGE 1
COMMAND EXECUTED
BLODI
IO
NVT-101
END
    
```

If the Response radio button is set to NOT ACCEPTED, the response will be:

```

<IODAC;
IODAC;
<;
NOT ACCEPTED
FAULT CODE 1
    
```

Double-click on the ORDERED list to sort it alphabetically.



The result string can be selected from the Result combo box. Use parameter RES=xx to force a specific FAULT CODE. E. g. <BLODI:RES=40;

Available strings:

```

FAULT CODE 1
FUNCTION BUSY
BUFFER EXCEEDED
UNREASONABLE VALUE
COMMAND RESTRICTED
FORMAT ERROR
PARTLY EXECUTED
INHIBITED
    
```



Program Corrections and Test System

AXE Server offers limited support of both program correction- and Test System commands:

```
<TEST SYSTEM;
EXECUTED

<ON V FCT 17;
:ON V DO:IF V FCT 15 = 1;
:DO:P V,;
:INIT;
EXECUTED

<END TEST;
ORDERED

<
WO      PROFILDATA/ENABLER
SERVER

TEST IS ENDED

END
```

```
SB-B      PROFILDATA/ENABLER SERVER
<PCORL:BLOCK=FCT,IS=H'8BF,CI=Z22TCZZJ0727;
PCORL:BLOCK=FCT,IS=H'8BF,CI=Z22TCZZJ0727;
<;
WRITE PROGRAM CODE
:WHC 54-11;
:END;
EXECUTED

<PCORI:BLOCK=FCT,IA=H'8BF;
PCORI:BLOCK=FCT,IA=H'8BF;
<;
EXECUTED

<PCORS:BLOCK=FCT,IA=H'8BF;
PCORS:BLOCK=FCT,IA=H'8BF;
<;
EXECUTED

<
```

Log Files

You can fully control the response from the server by editing existing log files or make your own collection. It's recommended to separate log files from different AXE application systems in separated folders.

The server will respond the exact content of the pointed out log file, so it can be necessary to edit newly collected files prior to use.

Example of raw file contents:

```
<SUSCP:SNB=2524300,LIST;
SUBSCRIBER DATA
SNB      DEV          DETY    SUT SCL          MIS          COS
2524300          RC  OBA-146    RC=190
          CBA-14
          PCAC-1

END

<
```

Example of edited file contents:

```
SUBSCRIBER DATA
SNB      DEV          DETY    SUT SCL          MIS          COS
2524300          RC  OBA-146    RC=190
          CBA-14
          PCAC-1

END
```

Make sure, that the file is terminated with a carriage return – line feed sequence (ASCII 13 – ASCII 10) Save the edited file in a suitable folder and name it according to the MML command used to generate the file. (E. g. SUSCP.LOG)

Parameters

In general parameters are skipped and can be omitted. BLODI:DEV=UPDN3-1234; will give the same response as command BLODI; In order to develop subscriber conversion scripts, the following commands will act on parameter SNB and respond with the correct subscriber number:

SUSCP, SUEAP, SUKWP, SUMNP, SULNP, IUSCP

Adding parameter DEV to command STDEP or SUAPP will force the server to respond with correct device number.

Include					
<input type="checkbox"/> MSN	<input type="checkbox"/> PBX	<input type="checkbox"/> PNB	<input type="checkbox"/> BGS	<input type="checkbox"/> SEPRM	<input type="checkbox"/> SEEOS
<input type="checkbox"/> Equal Access	<input type="checkbox"/> Distinctive.Alert	<input type="checkbox"/> Keyword	Reset		

Check the MSN checkbox to force multiple subscriber numbers in the printout:

`<stdep:dev=li3-0;` (MSN unchecked)

DEVICE STATE DETAILS

DEV	STATE	BLS	FTYPE	ADM	ABS	SNB	SNBST	LIST
LI3-0	IDLE				H'D	75338000	IDLE	
END								

`<stdep:dev=li3-0;` (MSN checked)

DEVICE STATE DETAILS

DEV	STATE	BLS	FTYPE	ADM	ABS	SNB	SNBST	LIST
LI3-0	IDLE				H'D	75338000	IDLE	
						75338001		
						75338002		
						75338003		
END								

<

Check the PBX checkbox to add SUT=PB in SUBSCRIBER DATA printout

Check the PNB checkbox to add PNB=xx in SUBSCRIBER DATA printout

Check the BGS checkbox to add COS=BGS in SUBSCRIBER DATA printout

Check the SERPM checkbox to add DEV=SEPRM2-0 in SUBSCRIBER DATA printout

Check the SEEOS checkbox to add DEV=SEEOS-0 in SUBSCRIBER DATA printout

Check the Equal Access checkbox to add SCL=PCAC-1 in SUBSCRIBER DATA printout

Check the Distinctive Alert checkbox to add SCL=RITY-1 in SUBSCRIBER DATA printout

Check the Keyword checkbox to add SCL=CBB-1 in SUBSCRIBER DATA printout

Manuel Response



Select a string from combo box and press the Send button to transmit the string to the connected client.

Note: TIME OUT is sent automatically after 5 minutes of inactivity towards the command interpreter, and LOGGED OFF is sent when session is closed.

Available strings:

CONNECTION INTERRUPTED
 SYSTEM RESTARTED
 CP NOT OBTAINABLE
 TIME OUT
 LOGGED OFF



Enter text or paste text from the clipboard to the Send Text field and press Enter to transmit the text to the connected client.

Send command `IOTXP:Hello;` from the client and receive `Hello` from the server.

Activity monitor

Received Text	
LogOn	30-08-2010 17:22:33
PLLDP;	30-08-2010 17:22:40
CACLP;	30-08-2010 17:22:44
IDEXP;	30-08-2010 17:22:49
A:ESERVER:CONFIRM=YES;	30-08-2010 17:23:04
A:ESERVER:CONFIRM=NO;	30-08-2010 17:23:14
A:ESERVER:PASSWORD=NO;	30-08-2010 17:23:30
LogOff	30-08-2010 17:23:43

Connected to: 192.168.1.2

All incoming activity is monitored on the Received Text list, with a time stamp added. A right-click over the list will clear all registrations.

Remote Management

If the application is residing on a remote PC, you can control all settings and handles from a connected client by sending MML command AXESERVER with parameters and values according to below table.

Command	Parameter	Value
AXESERVER	ACTIVITY	READ - CLEAR – RESET - CLOSE
AXESERVER	PASSWORD	YES - NO
AXESERVER	CONFIRM	YES - NO
AXESERVER	MSN	YES - NO
AXESERVER	PBX	YES - NO
AXESERVER	PNB	YES - NO
AXESERVER	BGS	YES - NO
AXESERVER	SEPRM	YES - NO
AXESERVER	SEEOS	YES - NO
AXESERVER	EA	YES - NO
AXESERVER	RITY	YES - NO
AXESERVER	KW	YES - NO
AXESERVER	RESPONSE	0..1
AXESERVER	RESULT	0..7
AXESERVER	SEND	0..4
AXESERVER	ORDERED	SAVE – SORT - XXXXX
AXESERVER	PORT	XXXX
AXESERVER	FOLDER	READ – "XXXXX"

Examples:

```
<axeserver:confirm=yes;
```

```
EXECUTED
```

```
<axeserver:activity=read;
```

```
LogOn           30-03-2010 13:07:29
LogOff          30-03-2010 13:07:34
LogOn           30-03-2010 13:07:34
LogOff          30-03-2010 13:07:35
LogOn           30-03-2010 13:07:35
AXESERVER:CONFIRM=YES; 30-03-2010 13:07:38
PLLDAP;        30-03-2010 13:07:41
AXESERVER:ACTIVITY=READ; 30-03-2010 13:08:29
```

```
<axeserver:folder="C:\Program Files\ProFilData\AXE Server\MSC";
```

```
Resource: C:\PROGRAM FILES\PROFILDATA\AXE SERVER\MSC\
```

```
WO          PROFILDATA/MSC SERVER      NVT-101    TIME 100901 1336  PAGE 2
```

```
EXECUTED
```

```
<axeserver:folder="C:\Program Files\ProFilData\AXE Server\enabler";
```

```
Resource: C:\PROGRAM FILES\PROFILDATA\AXE SERVER\ENABLER\
```

```
WO          PROFILDATA/ENABLER SERVER  NVT-101    TIME 100901 1336  PAGE 3
```

```
EXECUTED
```

```
<axeserver:ordered=DPPAI; will add MML command DPPAI to the ORDERED list.
<axeserver:send=4;        will select the TIME OUT string to be sent to the connected client.
<axeserver:activity=clear; will clear all monitored events.
<axeserver:activity=reset; will reset all checkboxes to their default settings.
```

Se and try the supplied data transcript AXEServer.dts located in the installation folder.