



XenaScripting

User-friendly scripting tool for Xena test system automation

Powerful and simple scripting tool makes test automation easier for test engineers.

The XenaBay and XenaCompact chassis are typically controlled using XenaManager, the free GUI application provided by Xena Networks. For automation applications, Xena also offers XenaScripting which is a command-line-interface (CLI) scripting API.

Any client platform can be used to establish a TCP/IP connection and send and receive CLI commands as lines of text. Typical client platforms include Tcl*, Perl*, Python*, Java*, and VBA. All Xena chassis support multiple concurrent scripting sessions, enabling different users to work on the same Xena chassis simultaneously.

To start a scripting session simply open a TCP/IP connection to the Xena chassis using TCP port 22611, on the same IP address as when using the XenaManager. You can then send lines of ASCII text to the chassis (in the XenaScripting command syntax format), terminated by CR/LF, and receive lines of ASCII text in response (also in the XenaScripting command syntax format).

You can either open the scripting connection from a console tool such as Telnet, or from the Xena ScriptClient application bundled with the XenaManager. Then you can interact with the Xena chassis using the XenaScripting command syntax format.

Everything you can do with XenaManager can also be done via XenaScripting, using simple CLI text commands. There are several hundred scriptable parameters: from basic streams and capture setup to wild-carding across modules and ports. It is, of course, possible to use the client-side functionality to execute script commands both conditionally and repetitively, which offers real advantages when it comes to test automation.

A unique and powerful feature is that XenaManager saves test port configurations in the exact same CLI command format as used by XenaScripting. This makes it very easy to go back and forth between a XenaManager environment and a XenaScripting environment. For example, exporting a port configuration from XenaManager generates a configuration file in a simple text format that can be edited using a text editing tool such as Microsoft Notepad. It can then be imported back into XenaManager. (See page 2 for an example.)

The seamless interaction between XenaManager GUI and XenaScripting accelerates your scripting learning curve, letting you get more done quicker as complex test port configurations can easily be defined in XenaManager, and then exported to a text based configuration file, which in turn can be cut & pasted into your scripting tool environment.

The Xena2544 and Xena1564 applications can also be executed and post-processed from your automated scripting environment via command line utilities provided together with these test applications. (For more information on this, refer to the Xena2544 and Xena1564 documentation.)

(*scripting examples are available on our website)



Top Features - XenaScripting

- Ideal for test automation of e.g. production environments
- Powerful CLI approach from any TCP/IP capable tool environment
- Unified syntax for CLI- and GUI-generated test port configurations makes it easy to learn
- Script examples of Tcl, Perl, Java and Python available
- Intelligent console tool bundled free with XenaManager



Xena Networks is an award-winning manufacturer of advanced Gigabit Ethernet test and measurement solutions.



Below is a simple example showing how 3 parameters from the XenaScripting client match the structure of the XenaManager GUI (below).

```

Xena Script Client v20 - 192.168.1.178
Command
0/0 ps_config [0] ?
0/0 PS_ENABLE [0] ON
0/0 PS_PACKETLIMIT [0] -1
0/0 PS_COMMENT [0] "Stream number 0"
0/0 PS_RATEPPS [0] 123456
0/0 PS_BURST [0] 5 100
0/0 PS_HEADERPROTOCOL [0] ETHERNET
0/0 PS_PACKETHEADER [0] 0x0000000000000004F4BC056CE0FFFF
0/0 PS_MODIFIERCOUNT [0] 0
0/0 PS_PACKETLENGTH [0] RANDOM 200 1500
0/0 PS_PAYLOAD [0] INCREMENTING 0x00
0/0 PS_TPLDID [0] 3
0/0 PS_INSERTFCS [0] ON

```

1
2
3



1 Enabled Stop after: packets Error injection:

Description:

Insert test payload, TID: Insert frame checksum, FCS:

Stream transmission profile:

Rate: percent
 packets per second
 Mbits/sec

Inter packet gap: ns (20 bytes)

2 Burst: Size: packets Density: percent
Inter burst gap: ns (733 bytes)

3 Packet content, auto-generated:

Packet length: Min: bytes Max: bytes

Length: 14

Further resources:

- wiki.xenanetworks.com
- www.xenanetworks.com/html/documentation.html



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