



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-2G, 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*, BASH*, Ruby*, 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-2G. 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-2G. Then you can interact with the Xena chassis using the XenaScripting command syntax format.

Everything you can do with XenaManager-2G 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-2G 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-2G. (See page 2 for an example.)

The seamless interaction between XenaManager-2G and XenaScripting accelerates your scripting learning curve, letting you get more done quicker as complex test port configurations can easily be defined in XenaManager-2G, 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)



KEY FEATURES

- 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, Ruby, BASH and Python available
- Intelligent console tool bundled free with XenaManager-2G



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] 0x000000000000004F4BC056CE0FFFF
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:

- www.xenanetworks.com/resources/
- wiki.xenanetworks.com



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



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