

Management Interfaces

Axtrinet™ APG Ethernet Packet Generators offer affordable 40Gbps & 10Gbps full wire-speed Ethernet load generation, capture and analysis capabilities for R&D, manufacturing, sales and support teams developing and selling products with high speed Ethernet interfaces.

An intuitive Graphical Control Interface or TCL-scripted interface can be used to configure and control the packet generation, capture and analysis capabilities of the unit via a Linux or Windows PC, managing it locally over USB or remotely over Ethernet LAN.



This application note describes how the USB 2.0 and Ethernet Management Interfaces can be used to manage single and multiple units, locally and remotely through the same Graphical Control Interface.

USB & Ethernet Interfaces

The management interfaces are on the rear of the Axtrinet APG unit:



Either interface can be used to manage the unit using the Axtrinet APG Graphical Control Interface. The TCL scripted interface will only run over the Ethernet interface.

The USB 2.0 interface is recommended for 'local' units in close proximity to the management PC. A single unit can be connected directly, or a stack of units can be connected via a USB hub.

After the Control Interface has been installed on the PC, no further configuration is required to enable the USB interface. Simply connecting the USB interface to the

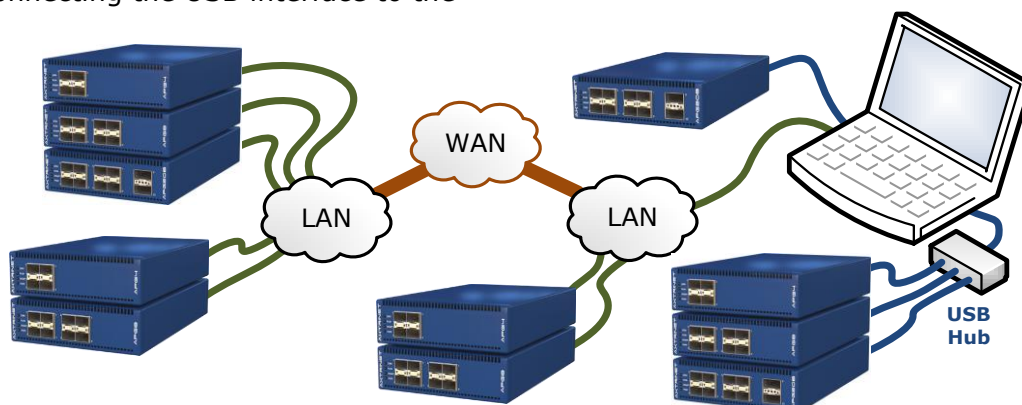
unit or units is all that is needed to manage the device.

The 10/100Base-T Ethernet interface (RJ45) can be used to provide a network connection to the PC running the Control Interface Application Software or TCL API Scripting.

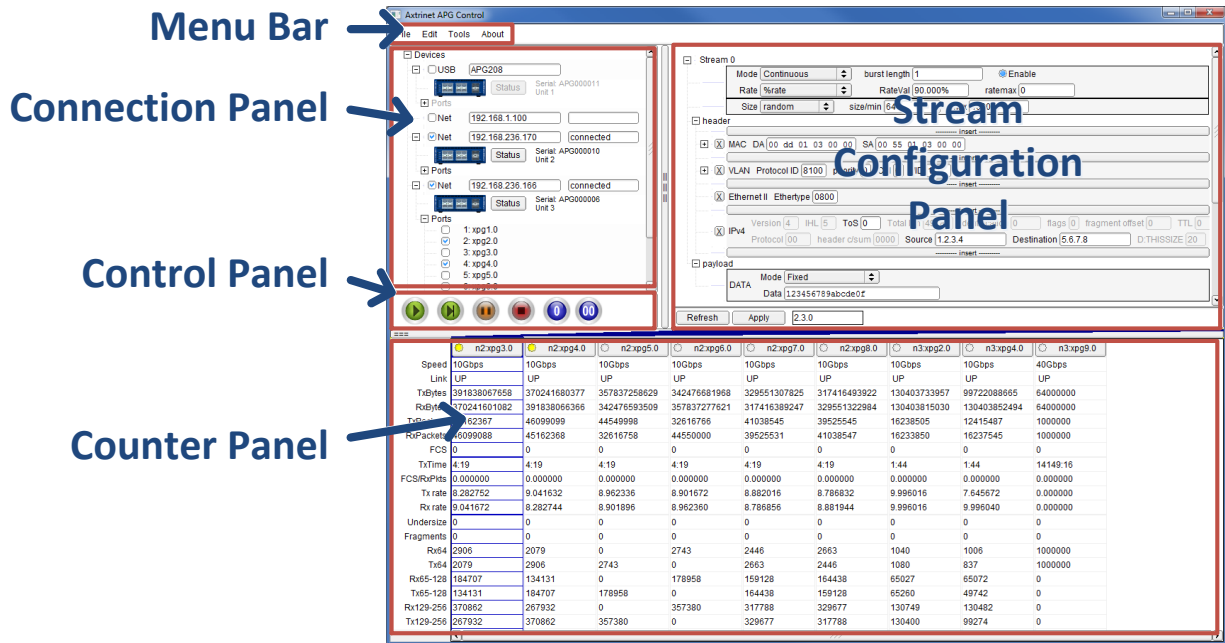
The IP address, subnet mask and gateway address must be configured to enable Ethernet management, which are then used to connect via the Control Interface or TCL scripting interface.

Connected units can be on the same LAN, or on a remote LAN connected via a WAN, eg in an adjacent building or a branch office in a different country. If the Axtrinet unit can be pinged, it can be managed.

Multiple units can be managed simultaneously through the Control Interface or TCL API Interfaces, over both USB and Ethernet interfaces.



APG Control Interface



The Axtrinet APG Control Interface will run on a PC or laptop running Microsoft Windows 7/8/10 or Linux, and requires at least one USB or LAN (wired or wireless) connection to communicate to the Axtrinet APG unit.

The Control Interface is suitable for use in R&D, sales and support environments where complete flexibility is required over the port and stream configurations.

The Axtrinet APG Control Interface is a custom application providing:

- unit, port and stream configuration and status
- port control (start, step, stop)
- packet and rate counters (packets, bytes, bits and errors)
- receive filter and packet capture tools

APG TCL API

The Axtrinet APG TCL API provides a TCL scripting interface for automated test generation.

Scripted management of the Axtrinet unit is ideally suited to load testing (eg environmental and EMC testing) and pass/fail functional testing during manufacturing.

The API provides access to:

- unit, port and stream configuration and status
- port control (start, step, stop)
- packet and rate counters (packets, bytes, bits and errors)
- receive filter and packet capture tools



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