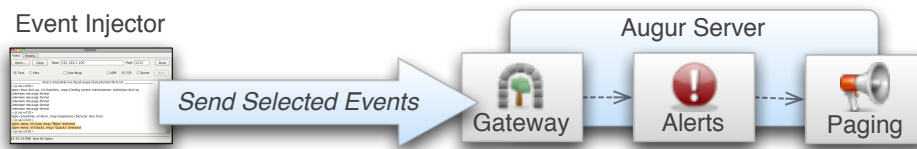


# Testing: Injector Tool

Augur has several ways to validate your configuration as you go along, but to test everything from end-to-end, you need to simulate real events for Augur to process. You could choreograph an event file for the **Player** connector plug-in, or even poke at your live equipment to elude events, but it is usually easier to manually test via the Event Injector, with some sample raw events, and a live gateway. This document explains how to do that.



You will create a connection between the Event Injector and the gateway you want to test. The gateway will process events from the Event Injector exactly as if it were listening to your equipment. (The gateway does not know the difference.) Then you manually select events in the Event Injector, and press its Send button to pass them through.

You test your rules and configuration by manually controlling which events you send, in what order, and their timing. You use Augur's normal interfaces (i.e. the Alert Viewer, report tools, your pager, etc.) to track progress.

## Events

You will need sample events to populate the Event Injector interface. You can load raw events from files that you manually create with a text editor, or you can copy/paste logs found with the Event Reporter. You can also enter or modify events directly within the Event Injector's editor pane.

The text area can hold multiple event messages. If the input lines are too long to fit in the text area, a scroll bar will appear at the bottom. You can select the **Line Wrap** option to force long lines to *wrap* (take up multiple lines), instead of scrolling.

The Event Injector can transmit both ASCII text and binary data. You select the transmission method via the two radio buttons.

The default method is **Text**. If you select the **Hex** option, you can enter the binary data as a series of two digit hex bytes. The Event Injector will parse the hex codes and generate the binary equivalent byte sequence during transmission.

Since Augur's gateways and rule trees expect to process text-based events, connector plug-ins convert binary protocols, like SNMP traps, to a text-based format, (for example, XML). So when testing, it is generally easier to use the text-based format in the Event Injector rather than dealing with the binary data and corresponding connector types.

The **Augur Event Logger** handler plug-in stores events in their text-based format, so you can get started testing any type of events by working with those gateway logs.

### Gateway Logs

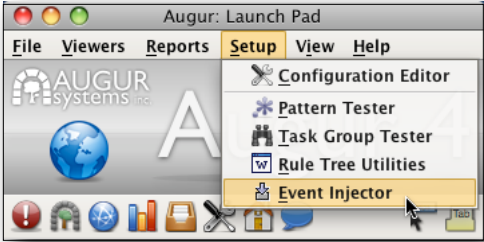
One source of raw event logs for testing is your Augur gateway logs. These logs are found in the `~/logs/gateways/` directory, in a subdirectory for each particular gateway.

The Event Reporter is the preferred way to retrieve these logs. Be sure to deselect the **Show Headers** option so that you can easily copy the results and paste them into the Event Injector's editor pane, without having to work around Augur's informational headers.

If you do not find logs for your gateway, then you probably need to add the **Augur Event Logger** handler to your gateway configuration, in the `postProcessMessage` folder.

# Event Injector

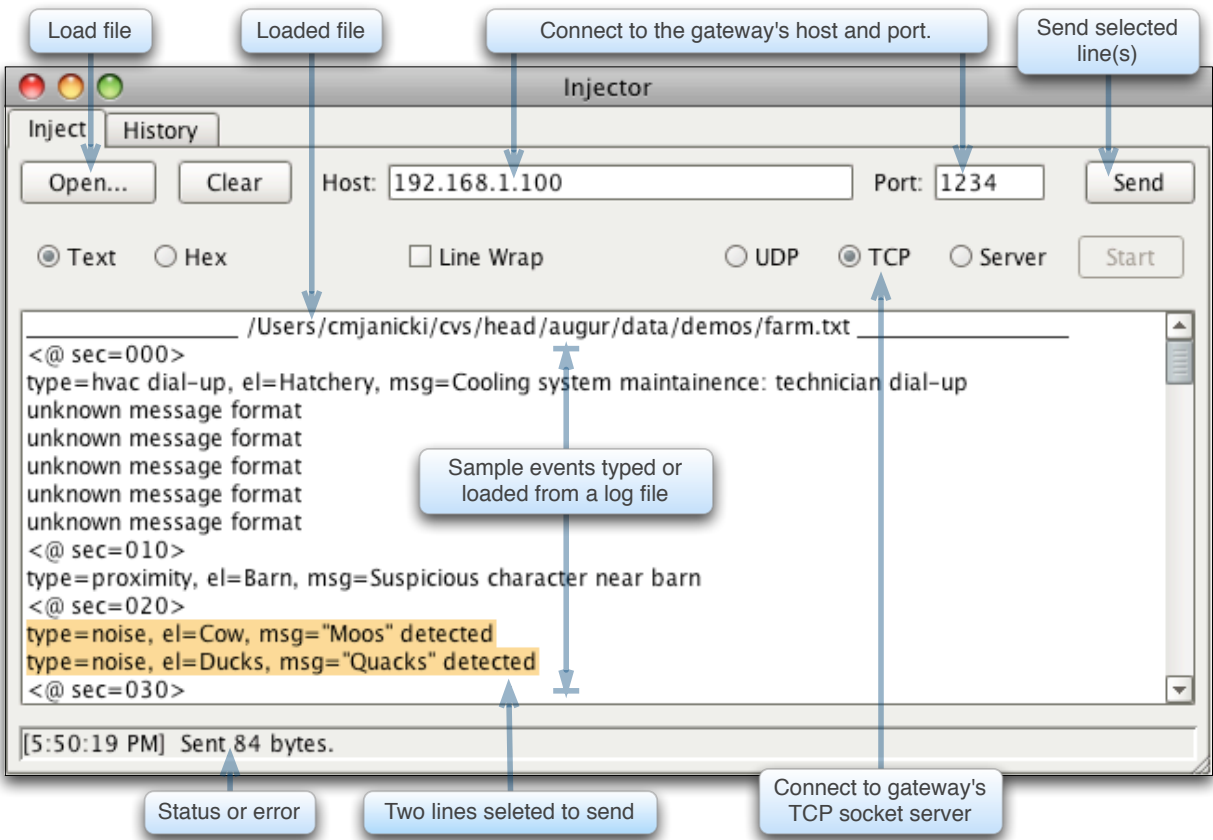
You launch the Event Injector from the Launch Pad's **Setup** menu. You can launch more than one, for testing multiple gateways.



The Event Injector can send data via three network communication protocols: UDP datagram packets, TCP socket client, and TCP socket server. For Augur testing, you will usually use the TCP socket client protocol, paired with the **ServerTCP** connector on the gateway side.

The Event Injector GUI shows two tabs. The **History** tab has a record of the data you have previously sent. You can reference this history to refresh your own memory if you lose track of event counts or timing.

The **Inject** tab is where you define the communications connection, and select the event data to send. A status panel at the bottom displays useful information, such as the success or failure of your last transmission.



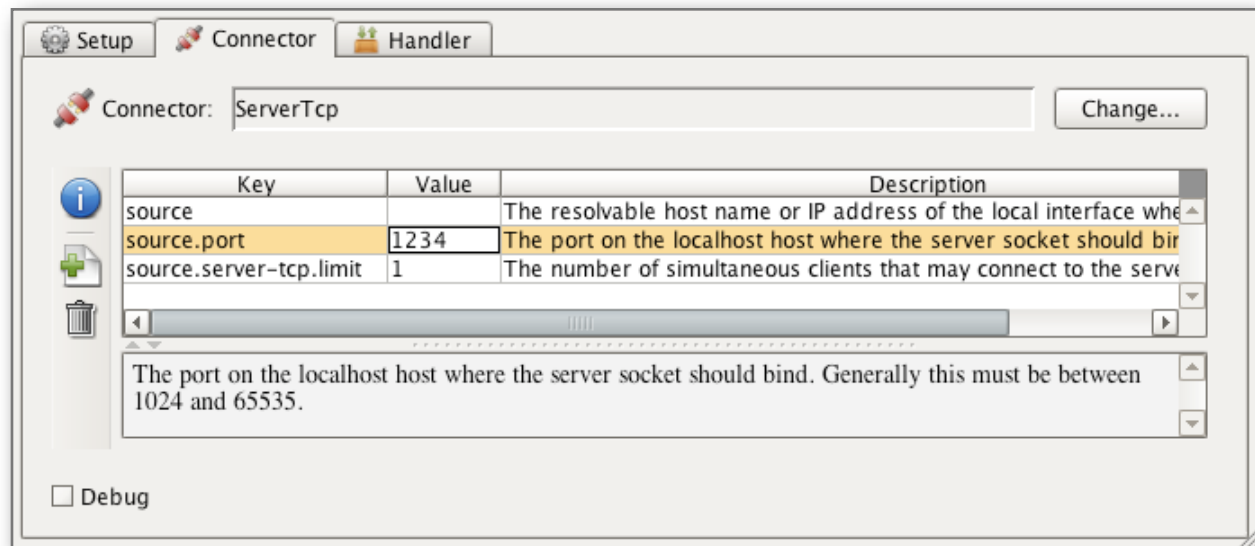
# Setup & Procedure

This section describes how to setup a connection between a gateway and an Event Injector, and how to test.

## Gateway Setup

In the Configuration Editor, you can either temporarily reconfigure your existing gateway or copy/paste a duplicate to be used for testing. In either case, you just need to change the connector.

Set the connector plug-in to **ServerTCP**, then set the properties as shown below. Note that the **source** value is intentionally empty; it instructs the socket server to bind to all interfaces, which makes the setup a little more fool-proof. If your machine has a conflict with the port shown, select a spare port, but make sure to use the same port when configuring the Event Injector.



Save the changes, and startup the gateway if necessary. In the Gateway Viewer, verify that gateway row is green, which indicates that it successfully created the socket server.

If the gateway's row is red, click on the gateway's row and look at the information in the status field at the top of the Gateway Viewer to debug the problem. Typical problems are a port conflict or a lack of permission to create a socket in a protected port range. For either of those problems, you should change the port to a spare port in the range 1024 to 65535.

## Event Injector Setup

Configure the Event Injector as follows:

1. Select the **TCP** radio button
2. In the **Host** field, enter the Augur server host name or IP address where your gateway is running
3. Set the **Port** field to **1234**, or whatever port you used to configure the gateway
4. Enter events in the text area.

# Testing Procedure

To send events, just select the data in the text area and press the **Send** button at the top right. Note the status field at the bottom for any errors.

**Be sure to select whole lines** so that the gateway will immediately recognize the line endings and process the event. Otherwise, the gateway will wait for more data. In approximately 10-seconds, the gateway will process the data it has received anyway, but this delay can be confusing.

Use Augur's normal interfaces (i.e. the Alert Viewer, report tools, your pager, etc.) to track results. Note that although Augur will process events within milliseconds, the Augur interfaces may not update for up to 30-seconds.

## Selecting Lines

A safe way to select whole lines is to position the cursor at the beginning of a line, then hold the **shift** key while pressing the **down arrow** key, once for each line you want to select. Notice that the cursor should move down to the beginning of the next line, indicating that the line ending was correctly included in your selection.