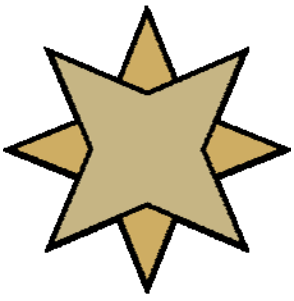
Performing a Communications Stress Test with SmartScout or Pervasive System Analyzer

A White Paper From

Goldstar Software Inc.



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Performing a Communications Stress Test with SmartScout or PSA

Last Updated: 01/06/2006

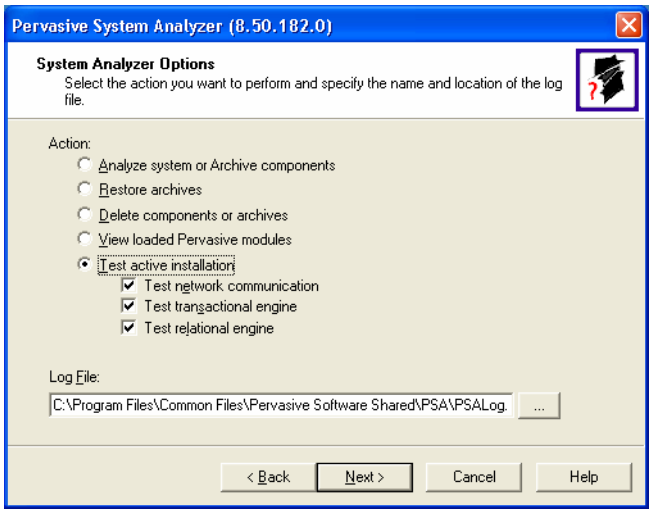
Pervasive offers two tools for testing your network connection from a Pervasive client workstation to your Pervasive database server. Older engines can use the SmartScout utility, provided with Pervasive.SQL 2000i and Pervasive.SQL 7, and available as a separate download for Btrieve 6.15. Newer engines (Pervasive.SQL 2000i and above) can use the Pervasive System Analyzer to perform these tests.

The network communications stress test can highlight problems within your underlying network that can contribute to communications failures, performance problems, and even file corruption!

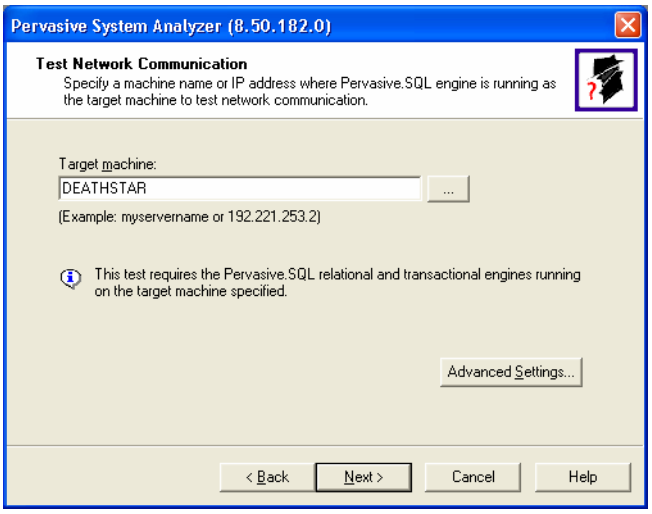
Using Pervasive System Analyzer to Perform a Stress Test

The Pervasive System Analyzer allows you to perform a network stress test from your workstation to a server.

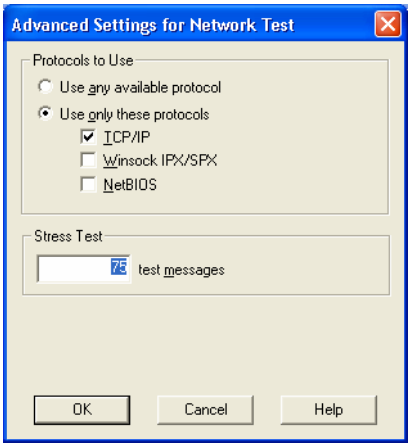
First, start the Pervasive System Analyzer. This screen may look slightly different depending on which version of the database client you have on your workstation.



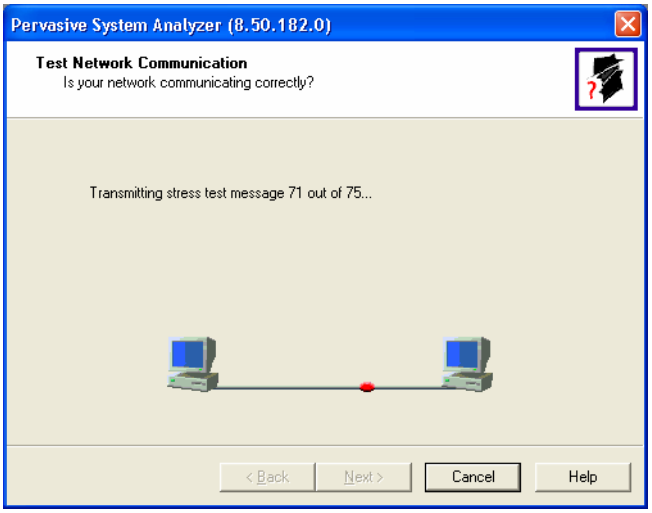
Select the radio option by "Test Active Installation". Make sure that only the checkbox by Test Network Communications is selected. Click Next.



Enter the name of the server in the dialog box. Click on the Advanced button.



Select the tests to run over TCP/IP only (uncheck all other protocols). Set up the test to run with a lot of packets -- 500 to 1000 is a good number to start with. Click OK, then click Next to run the test. Watch the display carefully until you see it start to count.

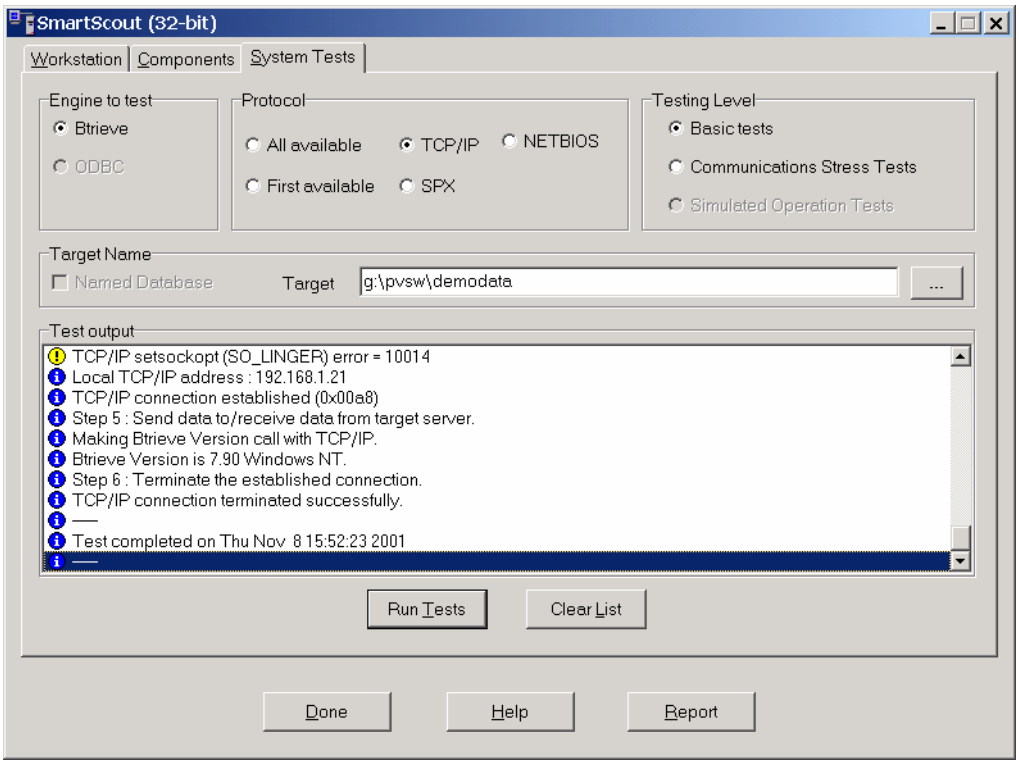


If the counting is rapid and smooth, with no pauses at all, then you have a good network connection. On a 100Mbps network or faster, you should not be able to see the "ones" column counting. If you see any periodic pauses (a pause being defined as any delay over 1/4 second), or if you see it count fast, then slow, then fast, etc., then you may be seeing the results of a low-level network problem. Each time a single packet is lost in this test, a ¼-second delay can be seen in the counting. If you see a delay of a second or more, then multiple packets are being dropped by the network at the TCP layer.

If you see problems, work with your networking staff to resolve the problem, until you get smooth counting on this test. You can also get an idea of relative performance by running the test on two computers and comparing the results

Using SmartScout to Perform a Stress Test

The SmartScout utility offers the same capabilities, but for older engines. First, start SmartScout by going to Start/Run and entering SSCOUT32.EXE. Select the *System Tests* tab on top of the screen.



Select the *Btrieve* option, the *TCP/IP* option, and the *Communcations Tests* option from the top of this dialog. In the *Target* box, enter (or browse to) the database directory – the location on the database server where the data files are physically located. (This test does not actually access files, it just uses this to verify that name resolution is working.)

Click Run Tests to start the test. As explained above in the PSA section, this test will send communications test packets to the server and start counting on the screen. Watch the numbers count and determine if you are seeing networking errors. When you are

done, click Cancel to stop the test. (It will run forever if you leave it up, so remember to do this, especially if you are testing a production system!)

Of course, if you still can't get it to work, contact Goldstar Software and let us work with you to help!