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NETWORKING THE ACL-750 TESTER

The average network installation will have 1-5 test station computers, and a server. The server may also be used as a test station, but this is not recommended in high use applications. There are two methods of networking.

Method 1 (Simple) is to have the test stations all use the common server data base. This method is easy to set up and understand. The disadvantages are:

- the same ones that all common data base applications have – the test stations will not work if the server or network goes down.
- increased network usage since each test must access the data files over the network
- decreased server security since the server directory must grant access and sharing rights to all the test stations

Method 2 (Robust) is to have the test stations all use local data bases (i.e. data files stored on their own computer) so they can run independently of the network. The server then periodically reads and resets the local data base logs using a routine called LogSort.

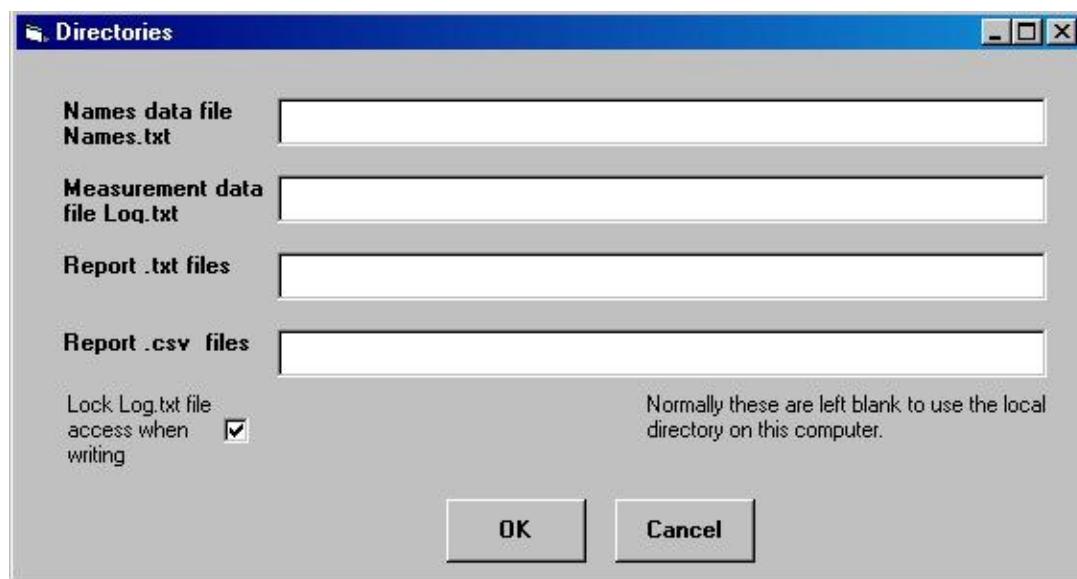
Method 1 (Simple) – using one common data base for all test stations

Method 1 has the test stations pointing to the server. Method 2 has the server pointing to the test stations.

Method One has each test station and remote computers using the data base of the designated Server.

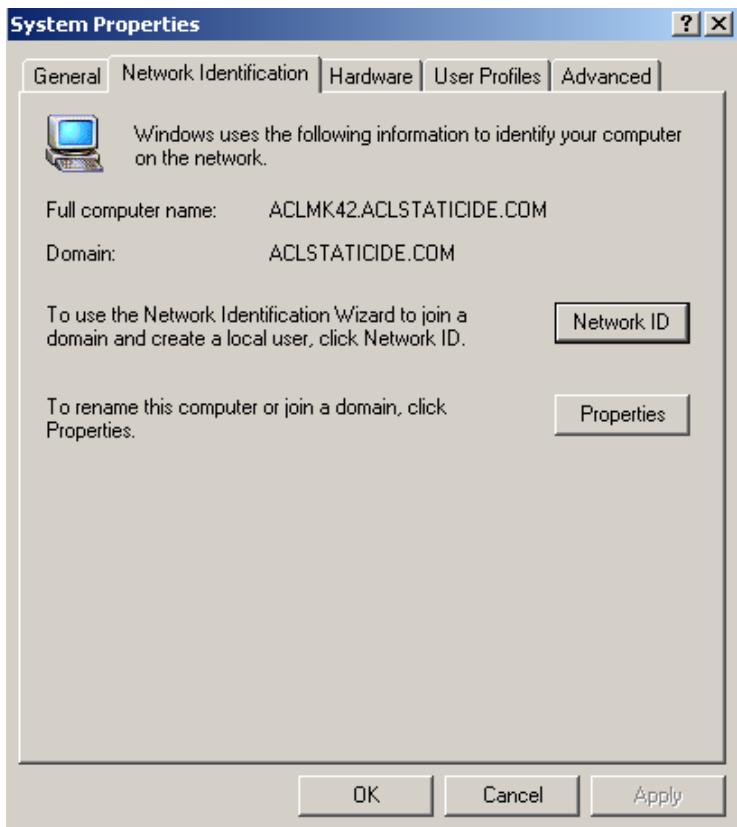
At each test station, click Setup> Directories. In the top two lines, enter the file path where the common data base will reside. Normally these entries are left blank to default to the local EsdTest working directory, but for simple networking, they may be set to point to the main server directory.

For example, if the common data base files (log.txt and names.txt) reside on the server computer, and if the server computer is named EsdTestServer, then enter <\\EsdTestServer\c:EsdTest> in the top two lines.



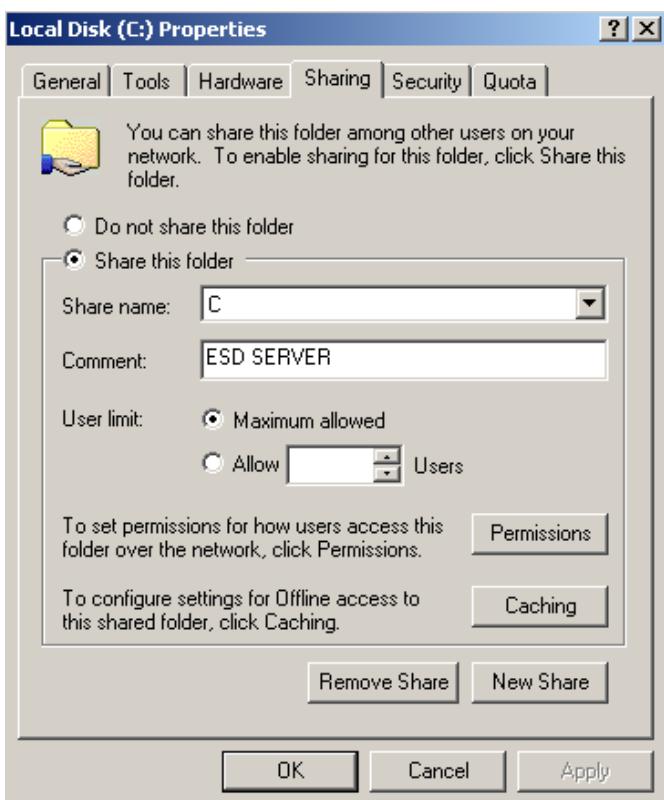
Set Up:

To create a path, designate which test station or computer is the server. Find the name, location and folder of the file that the other test stations and remote PCs will share.



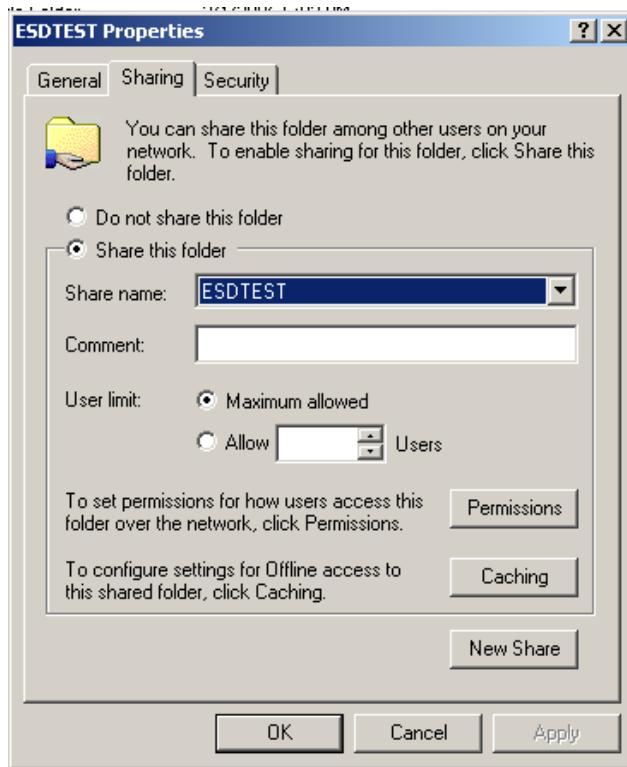
To find computer name:
Right click "My Computer" > Select Properties > Network Identification

My Full computer name is
ACLMK42.ACLSTATICIDE.COM
In this example note: ACLMK42



To find share name:
On the Server, go to My Computer
Right click C drive and choose Properties
Note Share Name (and click "Share this folder")

My share name is C



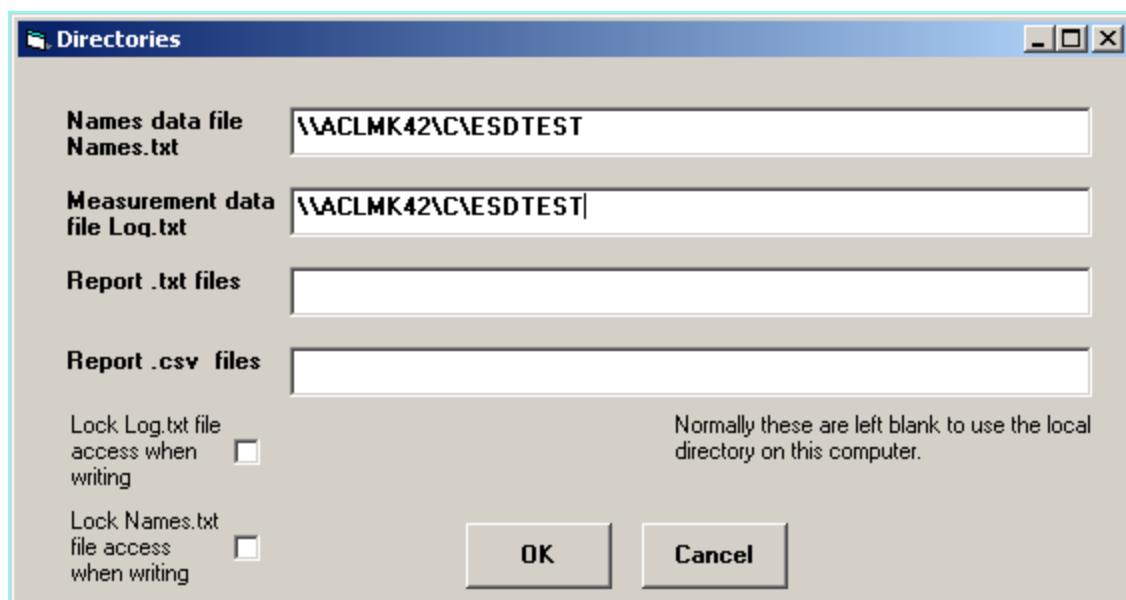
To find name of folder:
 Go to My Computer > C drive > ESDTEST folder.
 Right click ESDTEST folder and choose Properties
 Select Sharing Share file folder. Note the name.

My share name for this folder is "ESDTEST"

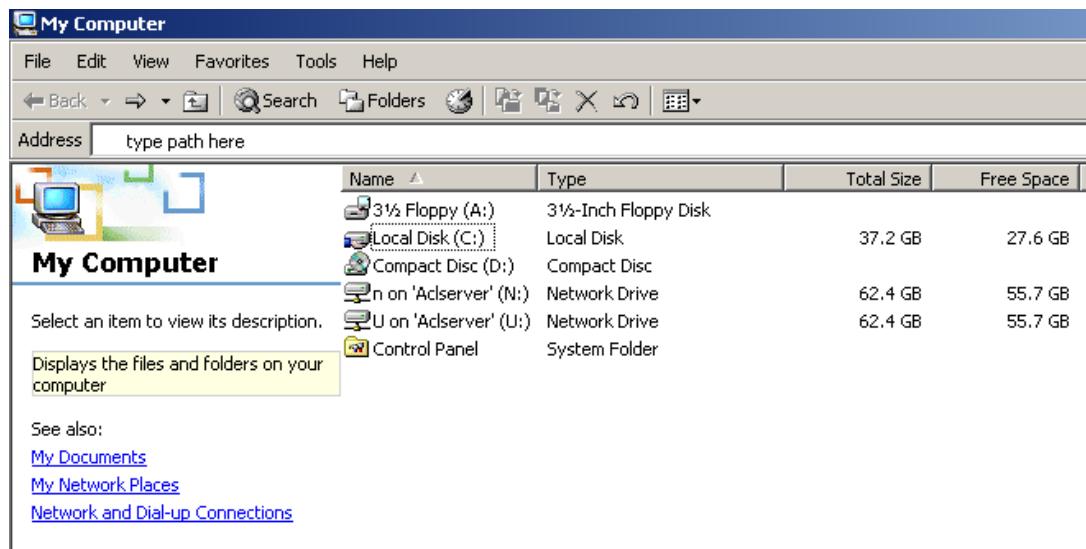
The path is <\\ACLMK42\\C\\ESDTEST>

ACLMK42 is the name \ C is location \ ESDTEST is the folder

Go to Each test station and put the path in the top two lines in the directories window of the 750 software.
 Set up > directories.



Check the path by putting the path address in the address window of the test station and locate the log.txt file on the server.



Double click it to open the file with Notepad, which will check that the test station has the proper sharing rights.

Close the log.txt file. Be sure to use the exact path name that is displayed in Windows Explorer.

Note - when running the Auto Email reports on the server, ignore all references to LogSort, GetNames, and SendNames since they only pertain to method 2 below.

If one master log.txt file is used, and if problems arise with multiple servers writing to it at the same time, then file locking may be selected by placing a check in the checkbox. If the log.txt file is local to the computer, this option should not be used (i.e. it should not be checked).

Method 2 (Robust)– using local data bases at each test station

All execution files (ESDTest.exe) and data files (Log.txt, Names.txt, ESDTest.ini) are stored locally on the test station computer so that a network or server failure will not affect the test station operation. Each workstation can operate independently of the server. The server can be set up to be totally secure with no access or sharing required on its drives, which ensures that employees can not tamper or corrupt the master data files.

Setup

A.) At the server, edit the Netlist.txt file (in the server EsdTest directory) using Notepad to point to the EsdTest directory of each test station:

\teststation1\c\EsdTest
 \teststation2\c\EsdTest
 \teststation3\c\EsdTest

If your computer network does not allow accessing other computers this way, then but does allow drive remapping, then delete the NetList.txt file, and map drives I-L to the test station EsdTest directories.

B.) If desired, the remote test stations can automatically update their time clocks from the server by executing the Synch.bat file whenever a test is conducted. To do this, see the section below titled “Synchronizing Test Station System Time”, which explains how to put the server name into the one line file. An easy way to edit Synch.bat is to locate the file in Windows Explorer (My Computer), right click on it, and select edit, which should open it with Notepad. If a test station computer is out of time synchronization with another computer, the following can happen. Suppose Joe Employee fails a test at Station A, and then passes a test at Station B five minutes later. If Station B's time is six minutes slower than Station A, it will appear that Joe first passed the test and then failed the test, so he will show up on all the reports as failing.

C.) At each test station, click Setup, Directories, and make sure all the entry boxes are blank. This will ensure that the test station uses local data files.

Operation

Each test station contains a local copy of the master names.txt files, so that a user can be tested at any test station. If the user information is changed on the server master copy, all test stations will automatically read the new information whenever the new copy is downloaded into their local directory. To download the names.txt file to the test stations after it is modified on the server (such as when a new user is added), run the SendNames function in the Auto Email report generator on the server to automatically download them, or manually click Tools, “Send user information to test stations”.)

The test data log file is named Log.txt, which stores one line of data every time a user tests. When it is desired to consolidate the remote test station data (e.g. before running a report), the server runs the LogSort function to read the data from the remote test station log.txt files, append the data to the local remote log history files called ‘loghist.txt’, resets the local log.txt file, and stores the data in the server log.txt file. The function also sorts all the data in chronological order.

The sequence of the server operation will thus look something like this:

1. Each day, the data from all the test stations should be gathered to produce a combined log.txt data file on the server for report generation. On the server, either manually click on Reports, Run LogSort; or run it automatically from the task scheduler in the AutoGenerate Email feature. The LogSort function will combine the data from the test stations listed in the NetList.txt file. If the NetList.txt file does not exist, the LogSort function will combine the data from the test stations mapped to the four drives I:, J:, K:, and L. The LogSort function will:
 - a. Rotate the backup the server logbak1.txt file to the server logbak2.txt file
 - b. Rotate the server log.txt file to the server logbak1.txt file
 - c. Append (and sort by time if needed) the test station Log.txt files to the server Log.txt file.

- d. Append each test station's Log.txt file to the test station's LogHist.txt file.
- e. Delete each test station's Log.txt file (which will be re-created after the next test).
- 2. The daily exception report can be generated from the server computer EsdTest program by clicking Reports, "View or Print Exception Report", (refer to Help.txt) or can be run automatically from the AutoGenerate Email feature.
- 3. Other reports can be generated such as the monthly report, for ISO9000 documentation
- 4. The Log.txt file should be resent periodically to prevent it from growing so large that it slows down report processing. Click "Tools" and select "Reset Log File". It will ask for a backup file name. Large companies should back up the log.txt file to a monthly backup file (for example Log0601 for June 2001). For small companies a back up should be done once every year.
- 5. If employees are permitted to enter their names when a badge is not recognized, then the individual tests station names.txt files may be consolidated into a master name.txt file. Run the GetNames and SendNames function from the server Auto Email window, or manually click the Tools "Add new names entered from Test Stations", "Sort names alphabetically", "Send names to test stations".

Test Station Computer Setup

1. It is recommended to use any Pentium type PC 166 MHz or greater, although even an old 486DX will work, running Windows 95 or higher (98 / NT / XP), with a 10/100base T RJ-45 type network card, 16MB or higher of ram, 1G disk or greater, and a spare serial port (9 pin preferred).
2. Connect all stations and the server to a central 10/100baseT RJ-45 type Ethernet hub using a star (parallel) arrangement with RJ-45 TPE (twisted pair Ethernet) or category 5 type cables.
3. Name the test stations something like TestStation1 (each station must have a unique name), and do not designate a password.
4. Install the EsdTest Software (see above).
5. If using the Network setup disks generated by the XP server (see Server Setup 1 below), then just run them. Otherwise, right click on the Network Neighborhood icon, select 'Properties', and check that Client for Microsoft Networks, network care driver software is present. On simple Windows 95 networks, also install NetBeui
6. Click 'File Sharing' (access to all files). Do this ONLY on test stations.
7. In Primary Network Logon select 'Client for Microsoft Networks', click the Identification tab
8. Type a computer name (like TestStation1)
9. Type the workgroup name (like EsdTestGroup). Do not use spaces.
10. Type a description (like EsdTestStation1)
11. Click OK
12. A message will pop up asking you to reboot the computer. Answer "No". Do not allow the computer to restart.
13. To boot up into the EsdTest program when power is applied to the computer, change the logon password in Setting, Control Panel, Passwords to 'no passwords'. Some operating systems may require using Microsoft "PowerToys" (available on their website) to bypass the Windows logon.
14. Copy the EsdTest shortcut and past it to the start-up directory, which is named something like: C:\Documents and Settings\All Users\Start Menu\Programs\Startup
15. Restart the computer
16. Through Explorer, right click on the 'c:ESDTest' directory, select 'sharing' and then select 'all files'.
17. Give it a unique name (like ESDTest1).
18. Do not set up a password to the Server station.
19. If using Network Method 1 (see Networking section above), open the EsdTest file, click Settings, Directory, and enter the full path of the server EsdTest directory in the top two lines of the Directories window..

Server Computer Setup

1. The easiest way to set up a network is the Network Wizard such as the one that comes with Microsoft Windows XP Pro.

2. Give the server name like 'Server1' and a password.
3. Install the EsdTest software (see above)
4. Right click on the Network Neighborhood icon
5. Select properties, check that Client for Microsoft, network card driver software is present. On simple Windows 95 networks, also select NetBeui.
6. Do not click file sharing unless using the Method 1 networking (see Networking section above).
7. In primary Network Logon select Client for Microsoft Networks and click the Identification tab.
8. Type a unique name (like Server1)
9. Type the workgroup name (like EsdTestGroup)-do NOT use spaces
10. Type the description Main Sever and click OK.
11. Do not allow the computer to restart.
12. To remove the logon password, go to Setting, Control Panel, User. Some operating systems may require using Microsoft "PowerToys" (available on their website) to bypass the Windows logon.
13. Restart the computer
14. The 4 test stations should be visible in Windows Explorer NetWork Neighborhood.
15. Edit the NetList.txt file to include all the test stations if using networking Method 2 (see Networking section above).

Synchronizing Test Station System Time

To maintain the most accurate test results, it is imperative that all networked computer have the same time set.

1. Edit the Synch.bat file in the \EsdTest directory (if the Synch.bat file does not exist, rename the example SynchNet.bat file to Synch.bat).
2. Place the server name in the NET TIME line:

```
NET TIME \\XYZ /SET /YES      *XYZ is the server name
```
3. Save the file
4. Right click on the Synch.bat file , click Properties, and select Close On Exit.
5. If the SYNCH.BAT file already exists in the directory, but the program leaves a small 'Finished' box on the toolbar when it is called, click the Properties box on the Synch.bat file item in Explorer and click the 'Close on Exit' box.
6. The SYNCH.BAT file is included in the installation disk. If no network is used or the time synchronization is not desired, delete or rename the SYNCH.BAT file.

EsdTest File Administration

1. Install and configure the computer hardware (see above)
2. Set up the network. Make sure the test stations and their files are visible on Windows Explorer.
3. If polling the station data bases then put the test station computer names into the NetList.txt file. If running from one master data base, then set up the test station "Setup Directories Window" to point to the server data directory.
4. Set up the server AutoGenerate email task scheduler to poll the stations for data and send reports
5. The supervisor checks his emailed exception report to see if any employees have failed or did not test.
6. The supervisor can modify the sick leave/vacation status, generate monthly reports, delete any employees that are no longer working at the firm, and can reset the log.txt file to create a back up.
7. To access the master file from a remote manager's computer, set up the "Setup Directories Window" to point to the server data directory.