NetBEUI Setup for Leica LTD Trackers

There are four steps to setup a computer to communicate to an LTD-300 or LTD-500 tracker. Three of these steps (1, 3, and 4) are typically not require if Leica's Axyz app is install on the computer.

1. Add the NETBEUI protocol to the computer Operating System (OS). It is not installed by default however the files are provided either on the OS CD or available on the internet.
2. Configure the NETBEUI protocol to use LANA 0 with the LANASettingWin2000 application. The procedure is outlined below.
3. Get copies of the tracker's MDB (Trk0XXXX.mdb) and LT-Axyz.pgm files. Put these on the computers hard drive in a convenient location.
4. Add an ODBC data source to the computer. This step allows SA to open the MDB file and send the tracker's cal parameters down to it.

Adding NETBEUI protocol

The process to add the NETBEUI protocol is out lined on the Microsoft website. A link to the location is provided below. If Leica's Axyz is currently running the tracker from the computer this step is note required as these files will are ready be on the computer.

http://support.microsoft.com/?kbid=301041

How to install NetBEUI on Windows XP

INTRODUCTION

This article describes how to manually install the unsupported NetBIOS Extended User Interface (NetBEUI) protocol on a computer that is running Microsoft Windows XP. The NetBEUI files must be copied manually from the Windows XP CD-ROM before NetBEUI will appear in the list of installable network protocols. Microsoft has discontinued support for the NetBEUI network protocol in Windows XP. However, it is understandable that migration to another network protocol such as TCP/IP may involve significant time in planning and testing. Therefore, if you want to migrate your system environment to Windows XP by obtaining the full, retail-released version of Windows XP, you can find the NetBEUI protocol on the Windows XP CD-ROM in the Valueadd folder.

Install NetBEUI on Windows XP

The files that you need for installing the NetBEUI protocol on Windows XP are Netnbf.inf and Nbf.sys. To install NetBEUI, follow these steps:

1. Insert your Windows XP CD-ROM in the CD-ROM drive and then locate the Valueadd\MSFT\Net\NetBEUI folder.
2. Copy the Nbf.sys file to the %SYSTEMROOT%\System32\Drivers folder.
3. Copy the Netnbf.inf file to the %SYSTEMROOT%\Inf hidden folder.

   **Note** To make a hidden folder viewable, follow these steps:
   a. Click **Start**, click **Run**, type **Explorer**, and then click **OK**.
   b. Click **Tools**, click **Folder Options**, and then click the **View** tab.
   c. Under **Advanced Settings**, click to select **Show hidden files and folders** under the **Hidden files and folders** Folder.

4. Click **Start**, click **Control Panel**, and then double-click **Network Connections**.
5. Right-click the adapter you want to add NetBEUI to, and then click **Properties**.
6. On the **General** tab, click **Install**.
7. Click **Protocol**, and then click **Add**.
8. Click to select **NetBEUI Protocol** from the list and then click **OK**.
9. Restart your computer if you are prompted to do this.
The NetBEUI protocol is now installed and working.

Note %SYSTEMROOT% is a Windows environment variable that identifies the folder where Windows XP is installed. (Typically, that folder is C:\Windows.) To view the value that is associated with %SYSTEMROOT%, type **set** at a command prompt, and then press ENTER. (Other environment values will also be displayed.)

Note After following the steps that are listed earlier in this article, you can use NetBEUI on LAN connections. However, you will not be able to use NetBEUI on a remote access connection. Remote access connections cannot use NetBeui.

For additional information about NetBEUI in Windows XP, click the following article number to view the article in the Microsoft Knowledge Base:
306059 The NetBEUI protocol is not available in Windows XP
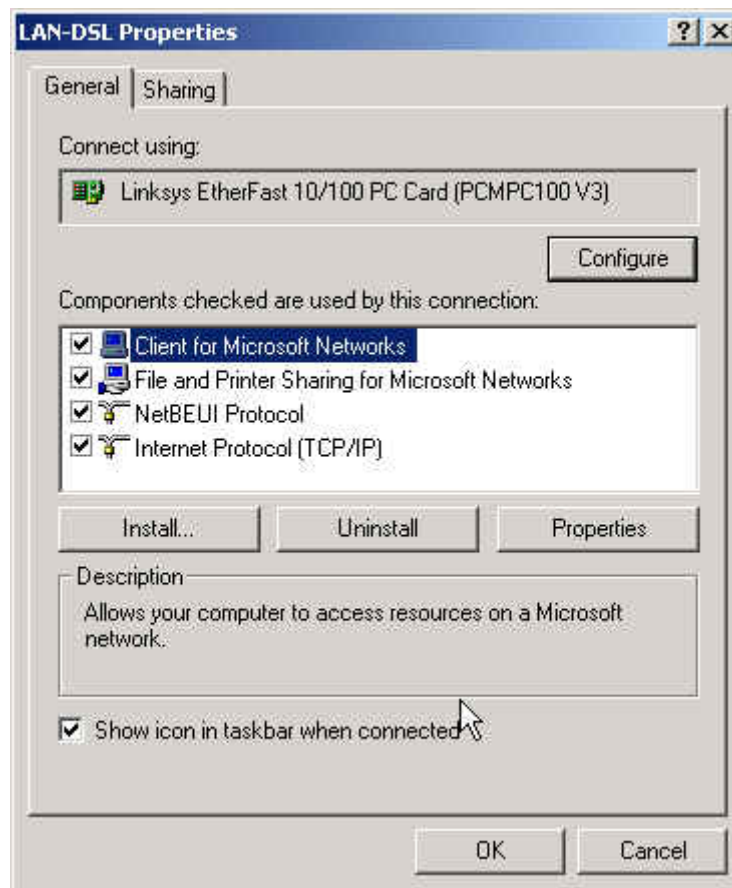
Configure NETBEUI to use LANA 0

Download a copy of this file from the kinematics.com website. Use the link below to go to the download location…

Download 'LeicaTP-LinkNetBiosLanaUtility.zip' file and unzip it to a convenient location on the hard drive.

Use 'lanacfg.exe' is a command line utility; it doesn't have the graphical interface that the Win NT 4.0 utility had. With this utility type commands in a command line window.

To use LANACFG.EXE

Place LANACFG.EXE into a convenient subdirectory, e.g., the root directory C:\. Open a command prompt (previously called a DOS prompt) and change directories to the directory.
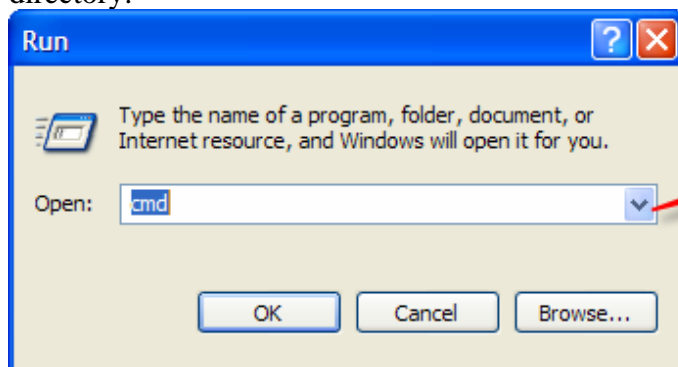
Run lanacfg with no parameters, presents 4 command line options to use.

- showlanapaths   - Show bind paths and component descriptions for each exported lana
- setlananumber   - Change the lana number of a bind path
- rewritelanainfo - Verify and write out lana info to the registry

- showlanadiag   - Show lana diagnostic info

Run "lanacfg showlanapaths", the LANA number information will display to the screen.

```
C:\WINDOWS\system32\cmd.exe                                    _ □ ×
C:\dell>lanacfg showlanapaths
Lana:  17
-->NetBEUI Protocol-->Broadcom NetXtreme Gigabit Ethernet

Lana:   3
-->NetBEUI Protocol-->Dell Wireless 1490 Dual Band WLAN Mini-Card

Lana:  10
-->NetBEUI Protocol-->Broadcom NetXtreme 57xx Gigabit Controller

Lana:   8
-->NetBEUI Protocol-->Cisco Systems VPN Adapter

Lana:   9
-->NetBEUI Protocol-->WAN Miniport (NetBEUI, Dial Out)

Lana:  13
-->NetBEUI Protocol-->WAN Miniport (NetBEUI, Dial Out) #2

Lana:  14
-->NetBEUI Protocol-->WAN Miniport (NetBEUI, Dial Out) #3

Lana:  19
-->WINS Client(TCP/IP) Protocol-->Internet Pr              ba
sed Device

Lana:  18
-->WINS Client(TCP/IP) Protocol-->Internet Pr              em
e Gigabit Ethernet

Lana:   7
-->WINS Client(TCP/IP) Protocol-->Internet Pr              49
0 Dual Band WLAN Mini-Card

Lana:   5
-->WINS Client(TCP/IP) Protocol-->Internet Protocol (TCP/IP)-->Cisco Systems VPN
 Adapter

Lana:   4
-->WINS Client(TCP/IP) Protocol-->Internet Protocol (TCP/IP)-->1394 Net Adapter

Lana:   6
-->WINS Client(TCP/IP) Protocol-->Internet Protocol (TCP/IP)-->Broadcom NetXtrem
e 57xx Gigabit Controller


C:\dell>_
```

Need to change this one to LANA 0 ... the network adapter name for your machine will likely have a different name

In the example above need to change the network adapter connected to the tracker so that it has LANA 0. Please note the name of the network adapter will not like be the same as shown in the figure above.

To change a LANA number enter the command …
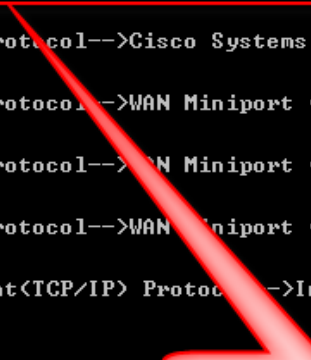
- lanacfg setlananumber OldLanaNumber NewLanaNumber

For the example above: lanacfg setlananumber 10 0

If another device has LANA 0 then rename it to the LANA used by the one being changed to 0.

The output from 'lanacfg showlanapaths' should look more like:

- Use the exit command to end the command line session.
- Reboot the computer.
- After rebooting return to the command line session with lanacfg to confirm the desired network adapter has its LANA set to 0.

Tracker MDB and PGM files
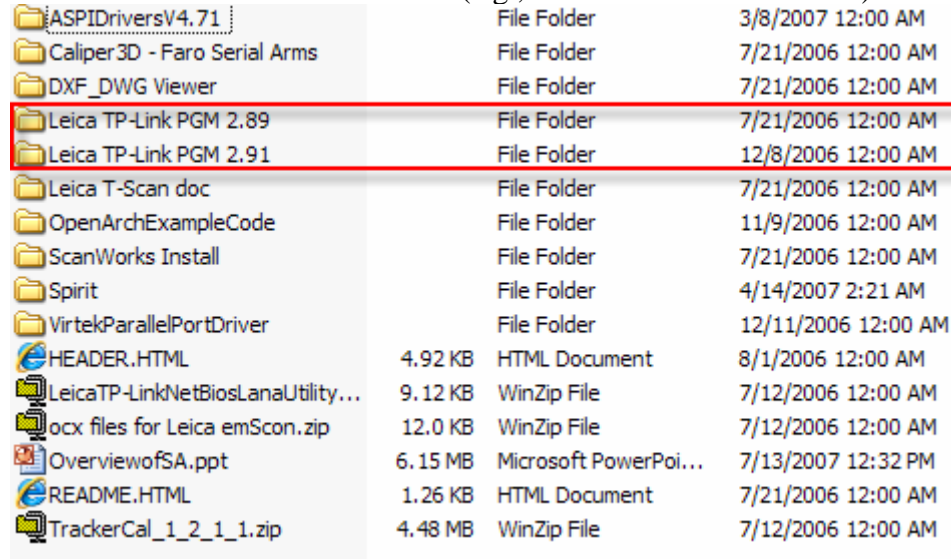
To start the tracker from SA copies of the tracker's MDB and a current PGM file are required. If the computer is currently running Axyz this step is not required.

Is Axyz is not on the compute copies of the tracker's MDB (Trk0XXXX.mdb) and LT-Axyz.pgm files are needed. They are typically found in the Program Files\Leica\Axyz\Tracker\ directory. Put these on the computers hard drive in a convenient location.

A copy of a current PGM file can be found on the kinematics.com website.

ftp://ftp.kinematics.com/pub/SA/Install/Driver%20Downloads/Misc/
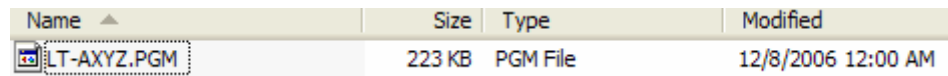
Please select a PGM version from the site (e.g., Leica TP-Link PGM 2.91)

ASPIDriversV4.71	File Folder	3/8/2007 12:00 AM
Caliper3D - Faro Serial Arms	File Folder	7/21/2006 12:00 AM
DXF_DWG Viewer	File Folder	7/21/2006 12:00 AM
Leica TP-Link PGM 2.89	File Folder	7/21/2006 12:00 AM
Leica TP-Link PGM 2.91	File Folder	12/8/2006 12:00 AM
Leica T-Scan doc	File Folder	7/21/2006 12:00 AM
OpenArchExampleCode	File Folder	11/9/2006 12:00 AM
ScanWorks Install	File Folder	7/21/2006 12:00 AM
Spirit	File Folder	4/14/2007 2:21 AM
VirtekParallelPortDriver	File Folder	12/11/2006 12:00 AM
HEADER.HTML	4.92 KB	HTML Document	8/1/2006 12:00 AM
LeicaTP-LinkNetBiosLanaUtility...	9.12 KB	WinZip File	7/12/2006 12:00 AM
ocx files for Leica emScon.zip	12.0 KB	WinZip File	7/12/2006 12:00 AM
OverviewofSA.ppt	6.15 MB	Microsoft PowerPoi...	7/13/2007 12:32 PM
README.HTML	1.26 KB	HTML Document	7/21/2006 12:00 AM
TrackerCal_1_2_1_1.zip	4.48 MB	WinZip File	7/12/2006 12:00 AM

Download the PGM file and save it on the computers hard drive.

Name ▲	Size	Type	Modified
LT-AXYZ.PGM	223 KB	PGM File	12/8/2006 12:00 AM

Add 'TrackerFile' ODBC datasource

This step is not required if Axyz is already on the computer.

An ODBC DataSource is needed to start/initialize a TP-Link tracker. Leica's Axyz establishes the datasource when it is installed. When Axyz hasn't been installed on the computer the ODBC DataSource is established on the computer with the following process.

Adds, removes, and configures Open Database Connectivity (ODBC) data sources and drivers.

Start the Control Panel >> Admin Tools >> Data Sources (ODBC) function

ODBC Data Source Administrator

User DSN | System DSN | File DSN | Drivers | Tracing | Connection Pooling | About

System Data Sources:

Name	Driver

Add...
Remove
Configure...

Go to the System DSN tab and select the Add button to create an ODBC DataSource

An ODBC System data source stores information about how to connect to the indicated data provider. A System data source is visible to all users on this machine, including NT services.

OK | Cancel | Apply | Help

Create New Data Source

Select a driver for which you want to set up a data source.

Name	V
Driver do Microsoft Paradox (*.db)	4
Driver para o Microsoft Visual FoxPro	1
Microsoft Access Driver (*.mdb)	4
Microsoft Access-Treiber (*.mdb)	4
Microsoft dBase Driver (*.dbf)	4
Microsoft dBase VFP Driver (*.dbf)	1
...e-Treiber (*.dbf)	4
...Driver (*.xls)	4
...Treiber (*.xls)	4
...VFP Driver (*.dbf)	1

Select the Microsoft Access Driver (*.mdb) driver.

< Back | Finish | Cancel

1. Name the DataSource "TrackerFile"

ODBC Microsoft Access Setup

Data Source Name: TrackerFile
Description:

Database
Database: C:\...\StartLeica\LeicaPGM\Trk00207.mdb
Select... | Create... | Repair... | Compact...

2. Click on the Select... button to choose a default Database

System Database
● None
○ Database:

System Database...

on this machine, including NT services.

OK | Cancel | Help | Advanced...

OK | Cancel | Apply | Help

Select Database

Database Name: Trk00207.mdb
Copy of Trk00480.mdb
TRK00013.mdb
Trk00207.mdb
trk00210.mdb
TRK00235.mdb
trk00270.m
trk0027
trk0027

List Files
Access

Directories: c:\...\startleica\leicapgm
🗁 c:\
🗁 @projects
🗁 StartLeica
🗁 LeicaPGM

OK | Cancel | Help
☐ Read Only
☐ Exclusive
Network...

3. Navigate to the Tracker's mdb file and select OK

ODBC Microsoft Access Setup

Data Source Name: TrackerFile
Description:

Database
Database: C:\...\StartLeica\LeicaPGM\Trk00207.mdb
Select... | Create... | Repair... | Compact...

System Databas
● None
○ Database:

Default database for this DataSource. Your path will likely be different. Only one TrackerFile DataSource is needed.

OK | Cancel | Help | Advanced...

Options>>