TLex, tlTerm, and tlDatabase
Network Architecture - Technical Overview (ODBC)

Overall Architecture and Network

The TLex, tlTerm or tlDatabase client application is installed onto each end-user's machine. The application can then function either as (a) a stand-alone application, or (b) as a client in a networked setup.

a) Stand-alone

In the stand-alone case, this simply means that a user edits the database document as a file on the local computer (just as one edits for example a ".doc" file using the MS Word application).

If multiple users work on copies of the same database in parallel, there is an advanced "Compare/Merge" tool that can be used to help bring the changes together, however this should be used with some caution - see the User Guide for more details.

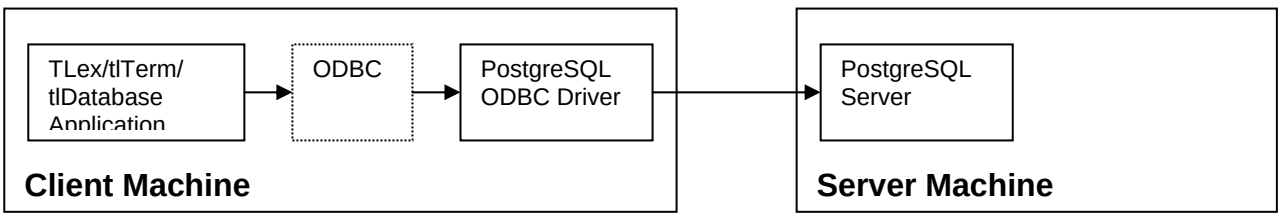
Note also that it is still possible to enable user logon ("user management") for the stand-alone document; functionality such as 'edited-by' tracking will still work, but multiple users just won't be able to work in parallel on the same database document.

It is also possible to switch from a stand-alone situation to a networked situation, and vice versa, by simply using the relevant "File/Save As" or "File/Save a copy" menu options.

b) Network

In the networked case, a central database can be viewed and edited simultaneously by multiple end-users. In this case TLex or tlTerm or tlDatabase functions as a 'client', connecting to a *relational database server* that hosts the database content. The database server software can be any of the major SQL servers, e.g. PostgreSQL (free/OpenSource), Microsoft SQL Server (commercial), Oracle DB (commercial) or MySQL (free/OpenSource). Apart from the database server, no other software is required on the machine designated to run as the server. (TLex/tlTerm/tlDatabase are not typically installed on the server machine.)

On each client machine, TLex/tlTerm/tlDatabase interfaces with the database server via an ODBC (Object Database Connectivity) "data source". ODBC is built into Windows, and is a standardised interface for allowing applications to connect to different possible databases. Thus on each end-user's machine is typically installed (a) the TLex/tlTerm/tlDatabase application and (b) the "ODBC driver" for the particular relational database software. The general architecture is shown conceptually in the following figure, using the PostgreSQL database server as an example:



Tips and Pitfalls

64-bit: On 64-bit versions of Windows, the ODBC administrator accessible via the system control panel, provides ODBC configuration for 64-bit applications only, and separately. Since TLex/tlTerm/tlDatabase are 32-bit applications running on 64-bit Windows, they must use the 32-bit ODBC configuration. This can be accessed in Windows by going to the “Start” menu and running:

%SYSTEMROOT%\SysWOW64\odbcad32.exe

You can tell if your Windows system is 64-bit by holding in the “Windows” key and pressing “Break”, and checking the “System type”.