



**DSX Access Systems, Inc.**

## **What is WinDSX-SQL?**

### **What is WinDSX-SQL Software**

DSX has two different versions of the WinDSX software. Our traditional WinDSX software and a version called WinDSX-SQL. The difference between the two is the type of database used to store the system information. The WinDSX software uses Microsoft Access files to store data and the WinDSX-SQL software uses Microsoft SQL Server™ to store data.

There are several differences between storing data in Access files and SQL Server. In order to define these differences, I must talk a little about how each one works. When using Access to store the data we have a centralized shared set of data files that reside on a file server. Each of the WinDSX workstations is capable of reading and writing data to and from the shared files. Each workstation is responsible for looking up data on its own as well as it is responsible for writing any changes into the database.

With this type of a system you can see that there is a possibility for several different workstations to be reading and writing to the database at the same time. Also, each workstation is pulling and pushing the database info through the LAN, which uses up bandwidth.

When using SQL Server to store the data we have a centralized set of data files that reside on the SQL Server PC. Each of the WinDSX workstations uses TCP/IP to make requests to the SQL Server. The SQL Server program executes the request and returns the results. This is very different than how things happen in the Access database.

When you use the Access version each workstation actually “touches” the database. With SQL Server only the SQL Server program touches the database. This results in a database that is much less susceptible to corruption. The risk of database corruption is decreased in two different ways. First, the liability of a network error causing corruption is eliminated as the only program that touches the database is SQL Server which is running on the same PC with the database. Second, the possibilities of simultaneous or conflicting writes to the same records are eliminated, as the SQL Server program will only service one request at a time.

Additionally, SQL Server is designed to handle very large database files and a high number of users. Increasing resources (speed, RAM) to the SQL Server PC without making any hardware changes to the Workstations can enhance your systems overall performance. SQL Server also provides more security for the system data, as it is much harder to get to the data.

Basically, SQL Server stands between the world and the data. Its job is to protect the data from unauthorized access, maintain the health of the database, and respond to requests from the workstations. However, this additional robustness and security comes at a price. There needs to be a PC dedicated to running SQL Server. Microsoft SQL Server must be purchased, and someone will have to administrate it. Setting up and maintaining a SQL Server PC is a profession; people who do it are called Data Base Administrators (DBA).

You will need a DBA or someone with extensive SQL Server experience to setup SQL Server and to keep it working. You will not be able to just send a regular field Technician to the site and tell him to figure it out. Additionally, DSX cannot help you do it over the phone. If you don't have someone that already knows how to setup and administer a SQL Server you need to contract someone to help you.