WinDSX Software Installation

Configuration and Updates

XP Professional™ / Vista Business™/ Windows 7™

Microsoft SQL Server ™

DSX, Our Commitment to Service

Our Commitment to service is continually demonstrated through our technical support line that is available 24 hours a day, 365 days a year. Emergency Technical Support is available outside the normal support hours of 8:00am to 5:00pm Monday through Friday, Central Standard Time for DSX dealers only.

Our technical staff consists of engineers with field installation and service experience that are always ready to answer any question. By providing a staff with years of security experience, DSX is able to offer valuable insight into the complex issues that face the security contractor installing DSX equipment. DSX commitment to service is unmatched in the security industry.

Information contained in this document was known to be true at the time of printing. This information is subject to change at any time without notice. This document was a Team effort by the Technical Support Group at DSX.

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WinDSX Software Overview

General Information

The WinDSX Access Control Software is the latest in 32 bit Windows™ applications. It was created to be efficient and still maintain the open-ended architecture that DSX has always provided. It combines the standard features you expect from DSX with many new features, more power and added flexibility.

WinDSX includes Photo ID Badging, Guard Tour, Time and Attendance, Elevator Control, Key Tracking, Image Recall (auto and/or manual), and interfaces to Paging Systems and CCTV Systems.

The WinDSX System actually consists of three main programs, **Comm Server, Workstation, and DataBase**. These three programs work in concert to provide a flexible and efficient system.

The diagram to the right depicts the relationship between the Software and Hardware and the different components that make up the WinDSX System. The WinDSX programs run locally at each PC. To follow are further definitions of each of the three main programs that comprise WinDSX.

Communication Server

The Comm Server program is a 32 Bit, multi-tasking, communications application that runs as a Process (or service) and is located on the PC that has the physical or virtual connection to the DSX Controllers. The Comm Server has no user interface, it simply communicates with the DSX Controllers, downloading new data, uploading panel history and logging all transactions to the hard disk. The Workstation program interrogates the Comm Server program through the network using the Comm Servers TCP/IP address. The Comm Server Program responds to the Workstation requests and routes all alarm, input/output control, and system events to the Workstation Program. The Workstation Program is the user interface for the Comm Server Program and provides full real time annunciation and control of all inputs, outputs, readers, override groups, maps and more.

If the Workstation Software is run on the same PC as the Comm Server program it still uses the IP address to talk to the Comm Server. WinDSX is loaded on to each PC that will run the program. The Workstation and DataBase programs on these networked PCs share the same data that is typically located on a network drive or resource. The Comm Server logs all data to the history database that is located in the same directory and drive that contains the shared system data.

The Comm Server Program is started when the Workstation program is started on the PC that has been defined as the Comm-Server. When the Workstation program is exited, it automatically closes the Comm Server program. The DataBase program can optionally start Workstation, which in turn will launch the Comm Server Program if this computer is defined as the Comm Server and the "Auto-Start Workstation" feature is selected under System-Setup-System Parameters in the DataBase program.

Large systems typically deploy the comm server program on a PC by itself (dedicated). In this mode the Workstation and DataBase programs are run on other Workstation PCs.

System Software Operational Diagram
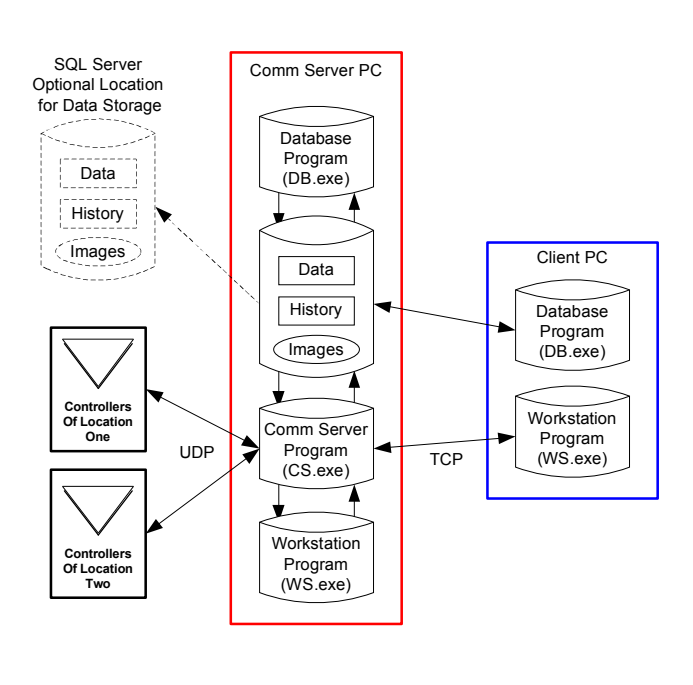
Workstation

The Workstation program is the actual user interface for all communications and controller interaction in the system. There are four interactive windows within the workstation program. These four windows are all sizeable with scroll bars to allow customizing of the desktop for ease of use. The four Windows are Alarm, Event, Selection, and Control.

Event and Alarm Windows

The workstation program provides a system-monitoring window that displays all system events as they occur. In addition, an alarm window shows only alarms as they happen. The alarm window provides the alarm handling mechanism that gives the operator the ability to acknowledge and resolve alarms. These two windows have scroll bars so the operator can scroll back through the system events or alarms received without having to run a history report. Using the mouse to click on an alarm invokes the alarm-handling screen. Clicking on a card read will recall that card holder image to the screen.

Selection Window

There is also a selection window that allows for a location to be chosen for interaction followed by a choice of Inputs, Outputs, Devices, Override Groups, Cameras, and Alarm Maps. The fourth section is the control window. Whatever gets chosen in the selection window is displayed in the control window. If inputs are selected all system inputs are displayed in the sizeable scrollable control window.

Status and Control Window

Once a selection is made, the Control Window displays all inputs or outputs as animated icons that change to indicate their status. Inputs can be represented with two different icons that switch automatically. One icon depicts the abnormal state while another represents the normal state. Output status is also displayed with two different icons. One icon appears when the output is open and another appears when the output goes secure. Full control over the inputs and outputs is provided through right clicking on the point for a control menu, which has all of the interaction commands from which to choose. The toolbar at the top of the screen displays icons that can also provide manual control over the input or output selected.

DataBase

The Database program is the very core of the system. It is where the system is defined and configured. Database manages all of the system data and provides the user with an easy but dynamic graphical user interface. The database program not only houses the data entry mechanism but also contains all system management utilities.

System

The database itself is divided into two sections: System and Location. System is where the general system wide features are defined such as Operator Comments, Operator Passwords and Password Profiles, System Definition Reports, and Setup.

Setup

Setup is where the PC and Workstation configuration is located. It is also where the Database Path, communication parameters, and the TCP/IP address of the communication server are defined. Setup also contains the Image Source definition for the Photo ID Badging portion of the software. Also included in Setup are the System Utilities such as Database / History Backups and Restoration.

Locations

The other section of the Database is Locations. Location is where the Access information is defined. This includes all working parameters of the system including Card holder information, Door parameters, Time Zones, Holidays, Cameras, and the powerful Photo ID Badging. History reports that can be defined saved and run from the current or saved history databases are also selected from the Location Menu. Stored history reports can even be defined to run automatically.

WinDSX Computer Hardware Requirements

WinDSX and WinDSX SQL are compatible with the latest and most recent Windows Platforms. PC Hardware and Operating Systems are outlined below. The hardware requirements are a minimum specification, which can always be exceeded if desired. All PCs used in the WinDSX system <u>must meet these minimum requirements</u> for the system to be supported by DSX.

Note /// System performance is dependant on the PC and LAN processing speed. The faster the PC, LAN, and the more memory the faster the system will operate. If you have any questions regarding the DSX software and PC requirements, please call DSX Technical Support.
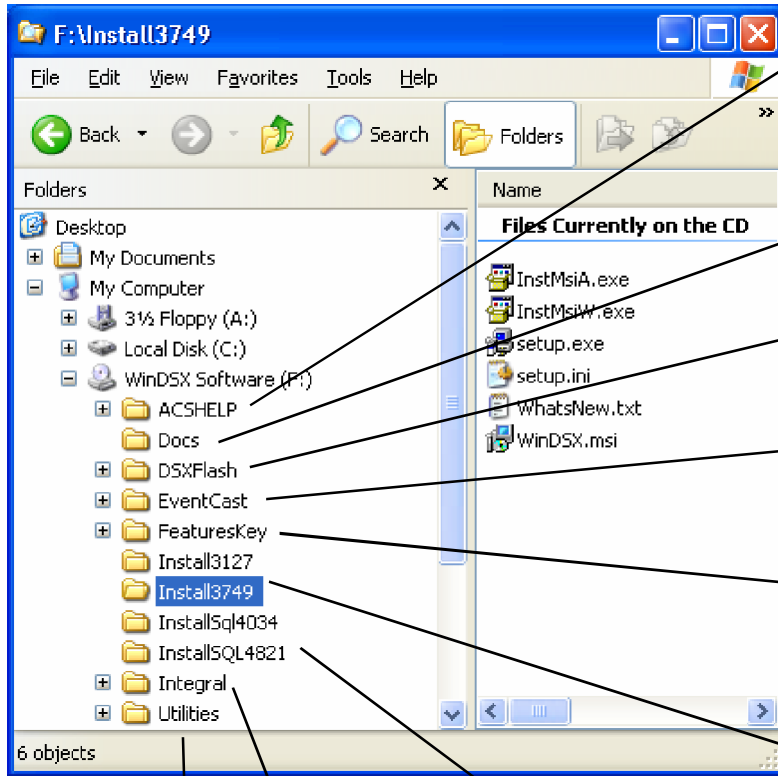
CPUs Minimums	Application
Pentium 1.6 GHz Dual Core (or better)	Host PC for single PC, single location system, or LAN workstation for single location system. 512M RAM
Pentium 1.8GHz Dual Core (or better)	LAN Comm Server or File Server for single location system, or workstation for multi-location system. 1G RAM
Pentium 2.4GHz (or better)	LAN Comm Server and/or combination File Server for multi-location system. 1G RAM - minimum
Memory Minimums	**Application**
512M	Basic System, Single PC
1G+	Multi-Location Comm Server Badging,
Drive Minimums	**Application**
CD/DVD 16x or better	Software Installation
1G Hard Drive Space minimum	Basic System requires 50M
Monitor	**Application**
SVGA 800 x 600 or better	17" or larger recommended
65,000 colors or better	Badging, Maps
Sound	**Application**
Windows™ compatible sound card.	WinDSX can play WAV files for input alarms.

LAN Communications	
Adapter 10/100Mbit or better	100M is recommended
Requires TCP/IP Protocol	Use MS LoopBack Adapter if there is no LAN
Comm Server	Static IP Address
LAN Modules	Static IP Address
Comm Server to Controller	UDP - ports 4000 to 5000
Comm Server to Workstation	TCP - ports 22223 / 22224
Backup Gear	**Application**
Windows™ compatible Backup gear.	WinDSX can send backups to logical drive. WinDSX SQL uses SQL Server for backups.
Modem	
DSX External dial-up	DSX Modems are the only modems supported by DSX.
Serial Ports	
DSX-USB – USB to RS-232 / RS-485.	Direct and Dialup communications require a serial port.
Client Operating Systems	**DSX Version**
7 Professional	3.7 / 4.7 and higher
7 Professional 64 bit	3.7 / 4.7 and higher Peripherals require 64 bit drivers.
Vista Business Svc Pack 1	3.7 / 4.7 and higher
XP Professional Svc Pack 2	3.5 / 4.5 and higher
The Comm Server Program can run on a Client Operating System.	
Server Operating Systems	
Server 2003	3.5 / 4.5 and higher
Server 2008	3.7 / 4.7 and higher
Server 2008 R2	
Server Operating Systems require the use of Active Directory.	
SQL Server	
SQL 2005 Svc Pack 3	WinDSX SQL requires SQL Server. WinDSX uses Microsoft Access.
SQL 2008	
SQL 2008 R2	

** As a general rule, when installing WinDSX/WinDSX SQL on Windows 7 or Windows Server 08, right click on Setup.exe and choose "Run as Administrator".

WinDSX Distribution CD
File / Program Map Example

F:\Install3749

File Edit View Favorites Tools Help

Back • ⊙ • 🔍 Search 📁 Folders

Folders

- Desktop
  - My Documents
  - My Computer
    - 3½ Floppy (A:)
    - Local Disk (C:)
    - WinDSX Software (F:)
      - ACSHELP
      - Docs
      - DSXFlash
      - EventCast
      - FeaturesKey
      - Install3127
      - Install3749
      - InstallSql4034
      - InstallSQL4821
      - Integral
      - Utilities

6 objects

Name

Files Currently on the CD

- InstMsiA.exe
- InstMsiW.exe
- setup.exe
- setup.ini
- WhatsNew.txt
- WinDSX.msi

ACSHelp contains the WinDSX Help System that is installed when the WinDSX software is loaded. The Help files are in a non-compressed format. The Help System can be copied and run from any PC using Windows. This allows the Help System to be used for training without loading WinDSX. Contains all Help Projects.

Docs contains the Software Installation Manual and User Guide as well as a variety of other documents in PDF format. It also includes the Adobe Acrobat Reader for the PDF files.

DSXFlash contains the latest in Flash ROM. This allows dealers to update the 1040/1022 Series, the 1030PR5, and the DSX-LAN module.

EventCast is a program that can be run from a client PC. It polls the Comm Server for all events and routes them to a serial port or IP Address.

Features Key contains the drivers for the WinDSX USB Feature Key. WinDSX SQL, Live Image Capture, DVR Integration, Soft I/O, Hot Swap Comm Server all requires the Key.

Install 37## contains the latest WinDSX installation software. You must load the latest Access Version before you can migrate to SQL.

Install 3127 is only used to first upgrade systems running Version 1 and 2 and version under 3.1.27. Once these older versions have been upgraded to 3.1.27 they can be upgraded to the latest 3.7 version.

The **Integral** folders contain the drivers to the video capture cards once used by DSX.

Utilities – Contain a number of programs and files that may be required by WinDSX depending on the application.

InstallSQL48## is the directory of the WinDSXSQL software. 4.8.## is the latest version. Run the Setup.exe to launch the install.

InstallSql4034 is only used to upgrade the oldest of SQL installations. Do not load this version unless instructed to by DSX.

Reports – Contain two zip files. One zip file contains all of the .rpt report templates that use SQL Authentication and the other contains all of the same .rpt report templates with the exception that these use Windows Authentication.

One or the other can be used in the system and must be placed in the local WinDSX folders as well as the shared WinDSX folder.

Getting Started

This page will give you an overview of what to do and where to start. You should have an idea of how many and which computers will run the WinDSX software and what duties will be performed at each one. Here are some things that you need to think about before actually starting.

Are you going to use the WinDSX (Access) version or the WinDSX SQL (SQL Server) version of software?

-If your answer is WinDSX (Access) you will use one of the following configurations:

Access Configuration 1 – All systems have a minimum of one PC. The one absolute PC that you must have is the Comm Server. This does not mean it has to be a Server Class computer. This means that regardless of what the Operating System is, this PC will perform the Comm Server duties such as all field controller communications, all uploads and downloads and hard disk logging. The system can start and even remain 1 PC. This PC would be the Comm Server and would contain the system database.

Access Configuration 2 – This configuration expands slightly on configuration 1. It has a Comm Server PC for the controller communications. The Comm Server PC is where the shared database resides. It also has at least one other Workstation PC (client) that shares the database on the Comm Server.

Access Configuration 3 – Further expands Configuration 1 and 2. In this application there is a Comm Server and at least 1 Client but the database resides on a different PC or File Server.

Requirements:

1. The Comm Server must have a static TCP/IP Address.

2. All Users of the system must have full permissions to the local WinDSX folder, the shared WinDSX folder and read only to \System32 under Windows.

-If your answer is WinDSX SQL (SQL Server) you will use one of the following configurations:

SQL Configuration 1 – SQL Systems have a minimum of 2 PCs. One is for the Microsoft SQL Server program (not supplied by DSX) where the database resides. The other one is for the Comm Server. The SQL Databases are created and defined according to the instructions in this manual. The tables in those databases are created using two script files that are provided by DSX once the WinDSX SQL software has been installed on the Comm Server PC.

There is a USB Software Features Key that can be installed at the SQL Server, Comm Server, or any client.

SQL Configuration 2 – In this configuration there is a SQL Server for the database, a Comm Server for system communications, and at least one client PC. The Comm Server program is configured to run as a Service and so is the Keymon program that monitors the USB Software Features Key which is also installed on the Comm Server. The WinDSX folder on the Comm Server is also the Shared folder for all multi media data such as card holder images, audio files and graphic maps. The third PC is for the Fat Client installation of WinDSX. The Fat Client workstation can be used to perform any system function and should be used for any and all remote sessions of the WinDSX system.

SQL Configuration 3 – In this application we expand upon 1 & 2 by adding another PC for Terminal Services or Citrix Server. This PC leverages multi user technology with thin client convenience. The perfect solution for allowing users to access the system from all over the world without having WinDSX loaded on their PC.

Requirements: These requirements are in addition to those listed in the previous section.

3. In addition to the permissions already listed the users will need full permissions to the SQL DataBases. Connection to the SQL Server can be with SQL or Windows authentication.

4. Remote sessions should be with a client PC not the Comm Server. If remote sessions are largely needed use Terminal Services or Citrix Server.

Installing WinDSX (ACCESS)

1. Before Installing the Software you must login to the PC as a user with full administrator rights.

2. On a Single PC, load the software according to the instructions in step 3 below. For multiple PCs on a LAN skip to step 4.

3. To load the software, place the WinDSX CD in the CD-ROM Drive. Navigate to the CD and to the Install Directory. **Open the Install Directory and double click on Setup.exe.** For Windows 7 and Server 08 right click on the setup.exe and select "Run as Administrator". Follow the prompts and allow setup to install the software into the C:\WinDSX directory or instruct setup of the desired directory. Proceed to Step 6.

4. If this is to be loaded on more than one PC all Workstations must have a Drive mapped (UNC) to the location of the shared database. This is the WinDSX folder on the PC where the shared data is to reside. All operators must have Full Control of the Local WinDSX folder where the software is installed and to the Shared WinDSX folder including all of the subfolders. If using Active Directory it is best to Publish the Shared folder then create a Security Group that contains all the operators of the WinDSX system. Allow the Security Group Full Control over the Published folder and all the subfolders.

5. The Software must be installed on each PC that is to run the WinDSX program. If this system is to use a Dedicated File Server (a PC that is not manned or used directly by an operator) the software should be loaded to the File Server first. The Software is then loaded to each Workstation that is to run WinDSX. Follow the software installation instructions in step 3.

6. After loading the software on each PC be sure and run the Database program (DB.EXE) first from the directory where the software was just loaded. After starting the database program for the first time, set the DataBase Path on each PC to the location of the shared database resource. Also be sure to assign the PC a unique Workstation Name and Number other than Workstation 1 and #1. The default user name and the default password are <u>master</u> - both entered in lower case.
   a.) **System / Setup / System Parameters**. Set *Workstation Name and Number* to something unique. Set *Regional TimeZone and Daylight Savings* option.
   b.) **System / Setup / DataBase Path** – Set *Path to DataBase* to Mapped drive or UNC of Shared WinDSX folder.
   c.) Restart Program

7. On the PC that is to be the Comm Server (perform all system communications) there is further configuration in addition to that listed in Step 6. Make the following changes in the database program.
   a.) **System / Setup / System Parameters / Yes No Options** - *This PC is Comm Server* must be selected.
   b.) **System / Setup / System Parameters / Communications Server** enter the static *TCP/IP Address* of this PC.
   c.) **System / Setup / Comm Ports** - Define all communication ports used to communicate with Location Controllers.
   d.) Restart Program.

Configuration 1 – Load the software according to Steps 1, 3, 6, and 7. The Windows Logon must have full control over the WinDSX folder and subfolders.

Configuration 2 – Load the software according to Steps 1-7. The Software is loaded on the Comm Server PC which is the location of the shared data. The WinDSX folder on the Comm Server is shared so that the client workstation can access the data. The software is loaded onto the client PC which is then configured through its DataBase path to point to the shared WinDSX folder on the Comm Server PC.

The Windows Logon at the Comm Server must have full control over the WinDSX folder. The Windows Logon at the client PC must have full control over the WinDSX folder on the client and full control over the WinDSX folder on the Comm Server.

Configuration 3 – Load the software according to Steps 1-7. The software is first loaded to the File Server where the database is to be shared from. The DataBase path, Workstation Name and Number is configured here according to Step 6. The software is loaded to the Comm Server next and configured according to Step 6 and 7. The Software is then loaded onto all Client PCs and configured according to Step 6.

The Windows Logon at the File Server must have full control over it's Shared WinDSX folder. The Windows Login at the Comm Server must have full control over the Shared WinDSX folder on the File Server and full control over the local WinDSX folder where the software was installed on the Comm Server. The Windows Logon at the client PC must have full control over the WinDSX folder on the client PC and full control over the WinDSX folder on the File Server where the shared database resides.

Remote Sessions – It is always best practice to use remote session software on a Client PC not the Comm Server. To remote into the Comm Server it is recommended to configure the Comm Server program as a Service and set the application <u>not to be</u> the Comm Server.

Permissions – In all configurations the Windows Login must have full control over the Local folder where the software is installed and to the Shared Folder where the database resides. Read Only to Windows\System32 folder is also required.

Updating WinDSX (Access)

In all of these Configurations the Comm Server can be run as a Service see page 17.

1. For Software Updates, first make a backup under System/Setup in the DataBase program. Next the program must be exited on all PCs including the Comm Server. If the Comm Server is running as a Service, the DSXComm Service must be stopped. If the DSXKey Service is running it must also be stopped.

2. The PC where the DataBase resides must be the first one upgraded. This could be the File Server or Comm Server. Once the File Server is upgraded the Comm Server is upgraded second followed by all Client PCs.

Un-Installing WinDSX

3. To un-install WinDSX select "Start" then "Settings" then "Control Panel". From "Control Panel" select "Add/Remove Programs". Select "WinDSX" and then click on "Remove". When prompted to "Remove Shared Files" select "Remove All" if you are going to re-install WinDSX. If WinDSX is not to be re-installed select "Remove None". If the un-install program states that certain *.zip, and *.mdb files cannot be removed because they no longer exist just Click on OK and continue. This is normal and nothing to worry about. When the program is removed the directory and the database will still be intact and in the same place.

4. Once the software is un-installed on the server it is ready to be re-installed. To load the software, place the WinDSX CD in the CD-ROM Drive. Select "My Computer" on the desktop then right click on the CD-ROM Drive and select explore. Navigate to the Install Directory. Open the Install Directory and double click on Setup.exe. For Windows 7 and Server 08, right click on the setup.exe and select "Run as Administrator". Follow the prompts and allow setup to install the software into the C:\WinDSX directory or instruct setup of the desired directory.

5. When the software is loaded, use Explorer to locate and run the DB.EXE program located in the same directory. Once the DB.EXE program is finished updating the database it will leave you on the Login Screen, select cancel or if in the program, select File then Exit.

6. Repeat steps 3 and 4 above for the Comm Server and all Workstations that run the WinDSX program.

Note/// Do not use add/remove to install WinDSX software. Always launch setup.exe from the setup directory.

Installing WinDSX SQL

1. To load the software, place the WinDSX CD in the CD-ROM Drive of the PC that is to be the Comm Server. Select "My Computer" on the desktop then right click on the CD-ROM Drive and select explore. Navigate to the Install Directory. **Open the Install Directory and double click on Setup.exe.** For Windows 7 and Server 08 installations right click on the setup.exe and select "Run as Administrator". Follow the prompts and allow setup to install the software into the C:\WinDSX folder.

2. Although the WinDSX SQL software uses SQL Server for the database storage it still requires a shared folder for image storage, badge graphics, Icons, and WAV files. This is typically a WinDSX folder on the network or on the Comm Server.

3. If the software is to be loaded on more than one Client PC all Workstations will require a Mapped Drive (UNC) to the location of the shared folder. If the Share is to be somewhere other than the Comm Server, Install the software on the Comm Server PC, run DbSql.exe once and then Cancel out when you get to the Login Screen. Then copy the WinDSXSQL folder to the desired location of the Shared drive. All operators must have Full Control over the Local WinDSX folder and to the Shared WinDSX folder including the child objects (subfolders). If using Active Directory it is best to Publish the Shared folder and then create a Security Group that contains all the operators of the WinDSX system. Allow the Security Group Full Control over the Published folder and all the subfolders.

4. Once the software has been installed on the Comm Server and the Shared folder has been established jump to page 10 on "Configuring SQL Server". Once the SQL Server has been configured continue with Step 5.

5. On the Comm Server in the WinDSX folder run the SqlSetup.exe program. Enter the Name of the SQL Server, the User Name, and the User Password for SQL Authentication or just the name of the SQL Server for Windows Authentication. This information is stored and should not have to be re-entered. Launch the database program DbSql.exe and set the DataBase Path on each PC to the location of the shared database resource. Also be sure to assign the PC a unique Workstation Name and Number other than Workstation 1 and #1. The default user name and the default password are <u>master</u> - both entered in lower case. In DataBase make the following changes:
    a.) **System / Setup / DataBase Path** – Set to Mapped drive or UNC of Shared WinDSX folder.
    b.) **System / Setup / System Parameters –** Change *Workstation Name and Number* to be unique and set the *Regional TimeZone and Daylight Savings* options.

c.) **System / Setup / System Parameters / Yes No Options** – *This PC is Comm Server* must be selected.
    d.) **System / Setup / System Parameters / Communications Server Tab** enter the static *TCP/IP Address* of this PC.
    e.) **System / Setup / Comm Ports** - Define all communication ports used to communicate with Location Controllers.
    f.) Restart Program.

Note /// WinDSX SQL Version 4.7 and higher requires the Features Key Monitor program (KeyMon.exe) and the USB Features Key to be installed on any PC in the System. See Page 16 for the Software Key Monitor installation.

6. On the Client PCs load the software according to the instructions in Step 1. In the WinDSX folder run the SqlSetup.exe program. Enter the Name of the SQL Server, the User Name, and the User Password for SQL Authentication or just the name of the SQL Server for Windows Authentication. This information is stored and should not have to be re-entered. Launch the database program DbSql.exe and set the DataBase Path on each PC to the location of the shared database resource. Also be sure to assign the PC a unique Workstation Name and Number other than Workstation 1 and #1. In DataBase make the following changes:
    a.) **System / Setup / DataBase Path** – Set to Mapped drive or UNC of Shared WinDSX folder.
    b.) **System / Setup / System Parameters –** Change *Workstation Name and Number* to be unique and set the *Regional TimeZone and Daylight Savings* options.
    c.) Restart Program.

SQL Configuration 1 – SQL Systems have a minimum of 2 PCs. One is for the Microsoft SQL Server program (not supplied by DSX) where the database resides. The other one is for the Comm Server. The SQL Databases are created and defined according to the instructions in this manual. The tables in those databases are created using two script files that are provided by DSX once the WinDSX SQL software has been installed on the Comm Server PC. Configure the databases on the SQL Server and Load WinDSX on the Comm Server according to Steps 1-5. The USB Software Features Key can be installed at the SQL Server or the Comm Server.

SQL Configuration 2 – In this configuration there is a SQL Server for the database, a Comm Server for system communications, and at least one client PC. The Comm Server program is configured to run as a Service and so is the Keymon program that monitors the USB Software Features Key which is also installed on the Comm Server. The WinDSX folder on the Comm Server is also the Shared folder for all multi media data such as card holder images, audio files and graphic maps. The third PC is for the Fat Client installation of WinDSX. The Fat Client workstation can be used to perform any system function and should be used for any and all remote sessions of the WinDSX system. Load the

software on the Comm Server according to Steps 1-5 and according to Step 6 for the Client PCs.

SQL Configuration 3 – In this application we expand upon 1 & 2 by adding another PC for Terminal Services or Citrix Server. This PC leverages multi user technology with thin client convenience. The perfect solution for allowing users to access the system from all over the world without having WinDSX loaded on their PC.

Remote Sessions – It is always best practice to use remote session software on a Client PC not the Comm Server. To remote into the Comm Server it is recommended to configure the Comm Server program as a Service and set the application not to be the Comm Server.

Permissions – In all configurations the Windows Login must have full control over the Local WinDSX folder where the software is installed and to the Shared WinDSX Folder where the shared media data resides. Also required is Read Only to Windows\System32.

In addition to the permissions already listed the users will need full permissions to the SQL DataBases. Connection to the SQL Server can be with SQL or Windows authentication. The Operator also needs full control over the SQL databases ACSDATA and ACSLOG and when using SQL authentication the user must be given db_datareader, db_datawriter, db_owner, and public.
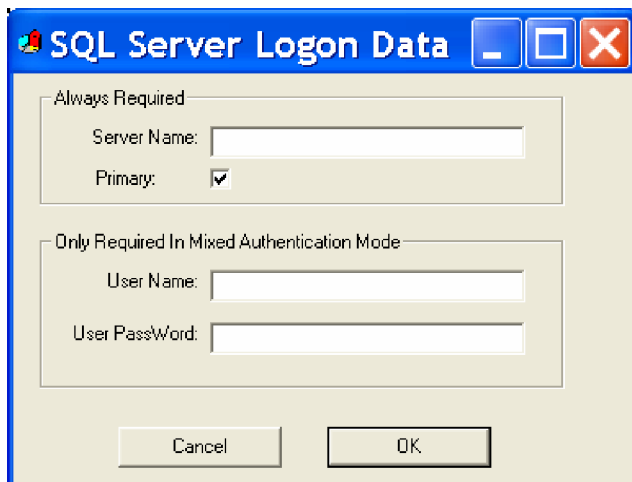
Backup SQL Server

WinDSX SQL allows for the definition of both a primary and backup SQL Server and database path. This feature will facilitate off site backup SQL Servers that cannot use SQL Clustering. For information on using Clustered SQL Servers please refer to the RMS1076 manual.

If the primary SQL Server fails the software can be shut down and restarted and it will connect to the backup SQL Server and database path. DSX does not automatically reconcile the databases when the primary returns.

Once the software has been installed or upgraded run the SQLSetup.exe program in the WinDSX folder. Each time you run it you can define a SQL Server to attach to and specify if it is the primary or secondary SQL Server.

1. Run SQLSetup.exe from the WinDSX folder.

2. Enter the SQL Server Name.

3. Place a checkmark next to Primary if this will be the Primary SQL Database.

4. If Using Mixed or SQL Authentication enter the User Name and Password for the SQL Database. If using Windows Authentication simply enter the Name of the SQL Server and set the Primary flag if appropriate, do not enter the User Name and Password. Click Ok to Save.

5. For a Backup SQL Database - Launch the SQLSetup.exe program again.

6. Enter the Name of the Backup SQL Server. Do Not Select "Primary".

7. If Using Mixed or SQL Authentication enter the User Name and Password for the SQL Database. If using Windows Authentication simply enter the Name of the SQL Server and do not enter the User Name and Password. Click Ok to Save.

8. Run DBSQL.exe and under System/Setup/DataBase Path make sure the SQL Servers (primary and backup) are both listed and the Shared WinDSX folder for each one is properly defined. These two SQL Databases both require a shared folder.

9. If the database path information is changed you must exit and restart the program.

Configuring SQL Server

Use these instructions for setting up WinDSX SQL on a Microsoft SQL Server™.

This product requires advanced knowledge of Microsoft SQL Server™ and Networks. This product requires advanced configuration. The Dealer or End User must have a Microsoft SQL Server Administrator to install, configure, and maintain the SQL Server on site.
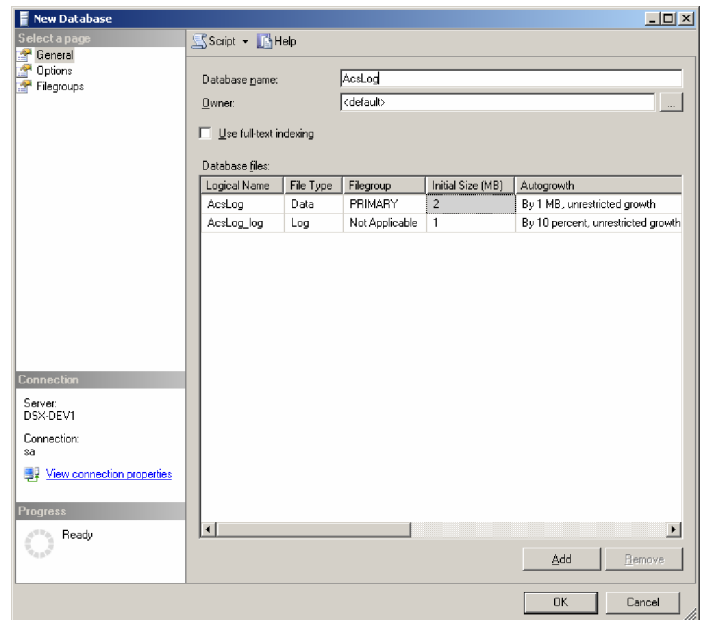
1. Using the **Management Studio**, right click on the Name of the Server and select *Properties*. Make the following settings.
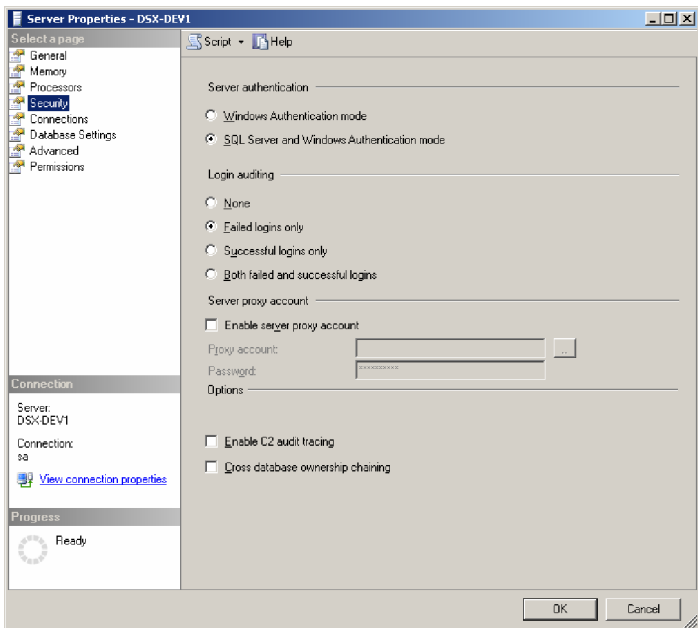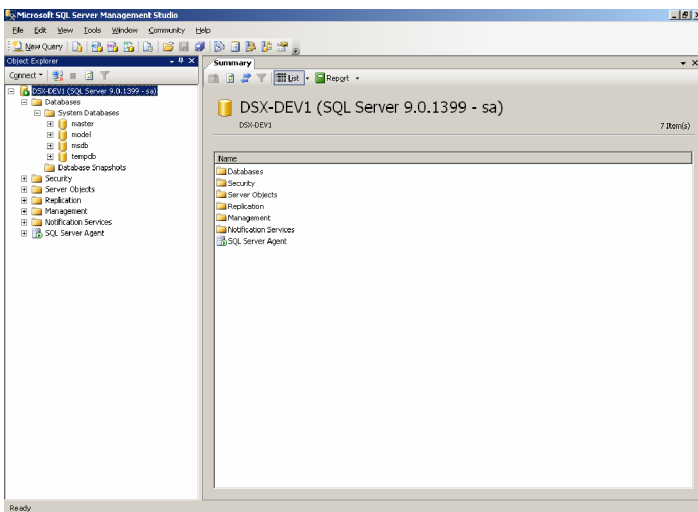

2. Using the **Management Studio** create a new database called AcsData and save. Set the initial size to be 100 Meg. Turn on the *Automatic File Growth* and set the growth *to megabytes and 10 Meg*. Select *unrestricted file growth*.
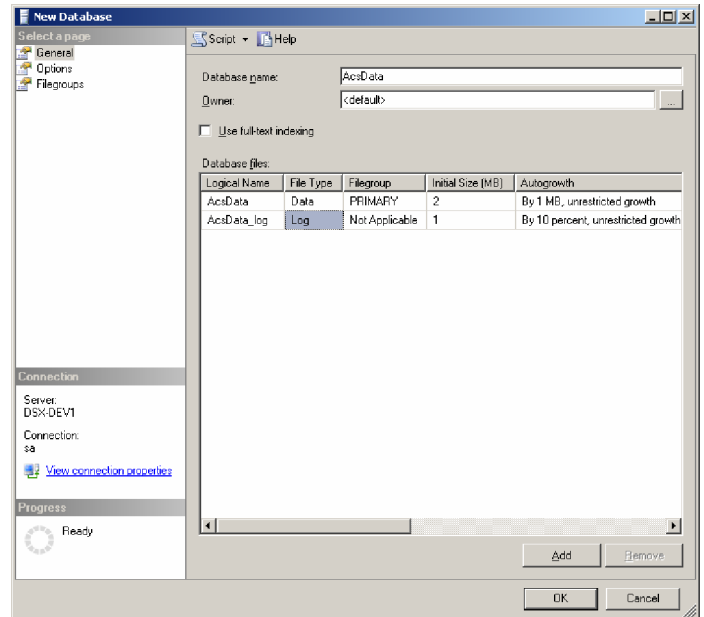
3. Using the **Management Studio** create a new database called AcsLog. Set the initial size to be 200 Meg. Turn on the *Automatic File Growth* and set the growth to *By Percent* and set the percent to *10*. Select *unrestricted file growth*.
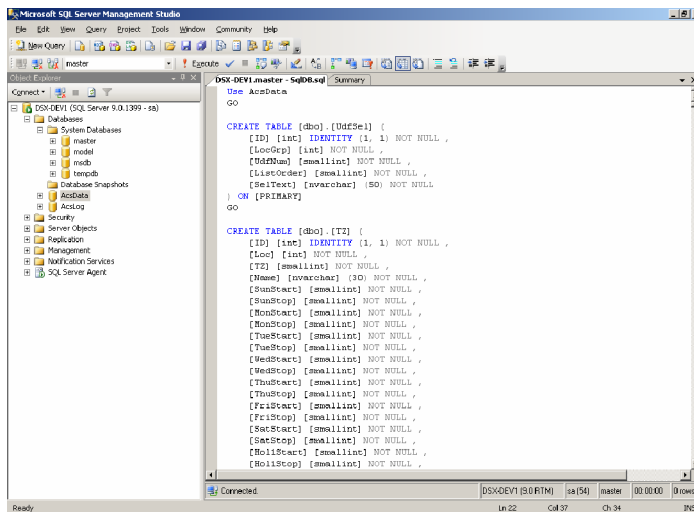
4. From the **Management Studio** right click on AcsData and select New Query.
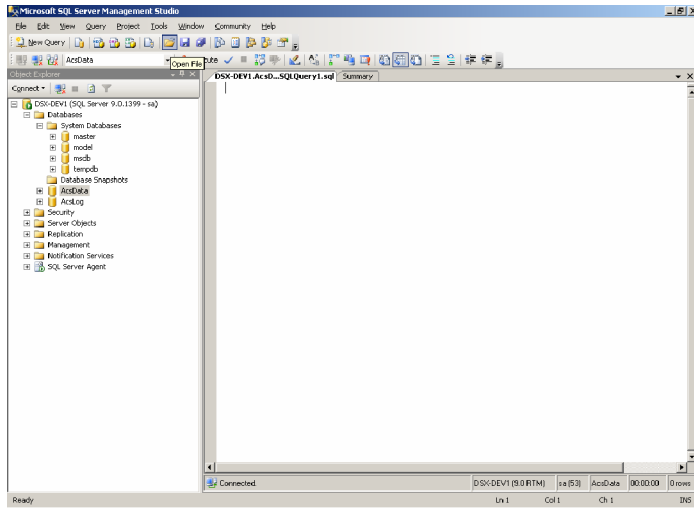
5. Next Select *File/Open* and navigate to the directory where you installed the WinDSX SQL software. If you have already attempted to run the WinDSX database program you will find a sub directory name MdbStruc. Inside this directory you will find a file called **SqlDb.sql**. If you do not see the sub directory then the file will be located in the directory where the WinDSX software is installed. Open the SqlDb.sql file.

6. Once the file has been loaded click on **Execute Script** in the tool bar. This will instruct the Query Analyzer to run the script. The script will create the structures of the AcsData database.

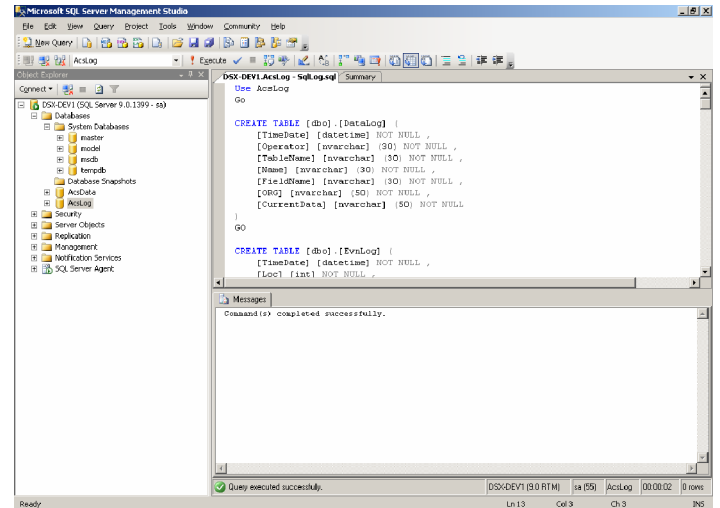7. From the **Management Studio** right click on AcsLog and select New Query.

8. Next Select *File/Open* and navigate to the directory where you installed the WinDSX SQL software. If you have already attempted to run the WinDSX database program you will find a sub directory name MdbStruc. Inside this directory you will find a file called **SqlLog.sql**. If you do not see the sub directory then the file will be located in the directory where the WinDSX software is installed. Open the SqlLog.sql file.

9. Once the file has been loaded click on **Execute Script** in the tool bar. This will instruct the Query Analyzer to run the script. The script will create the structures of the AcsLog database.

10. From the **Management Studio** select **Security/Logins**. Right click and select New Login.

11
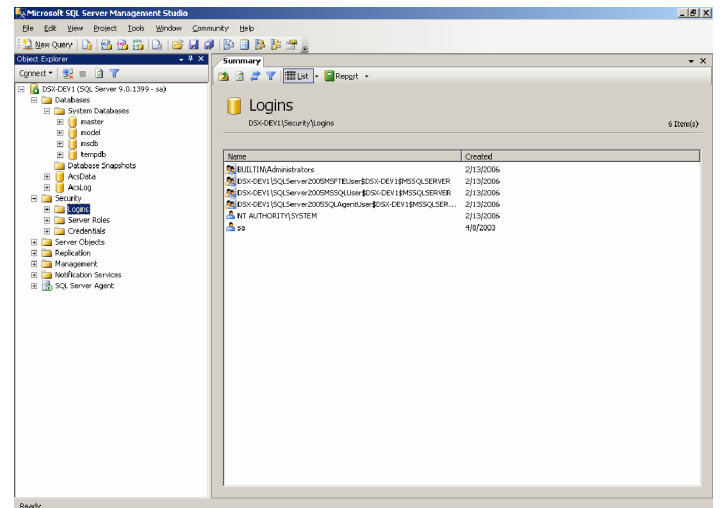
11. Provide a Name that you wish to use for logging into the SQL server from the workstations. Click on *SQL Server Authentication* and provide a password that you wish to use for logging into the SQL server from the workstations. Select *AcsData* as the default database.
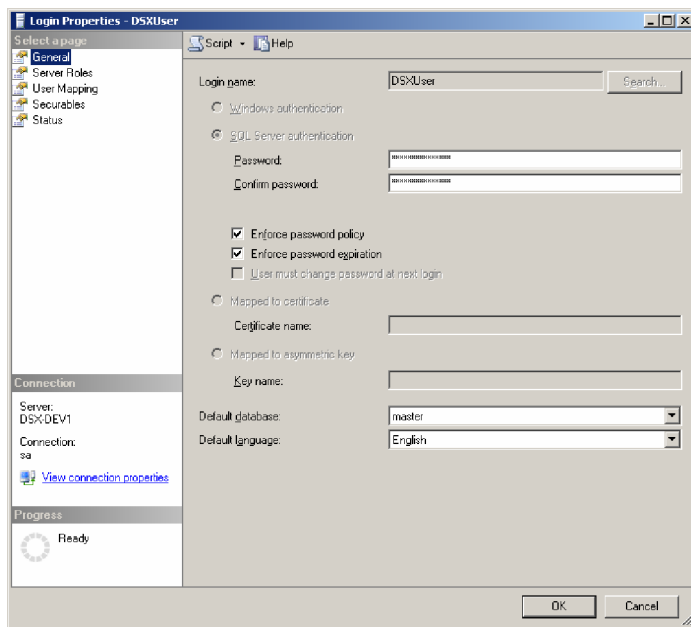
12. Select User Mapping and assign the following databases to the Login and set the appropriate permissions as below.
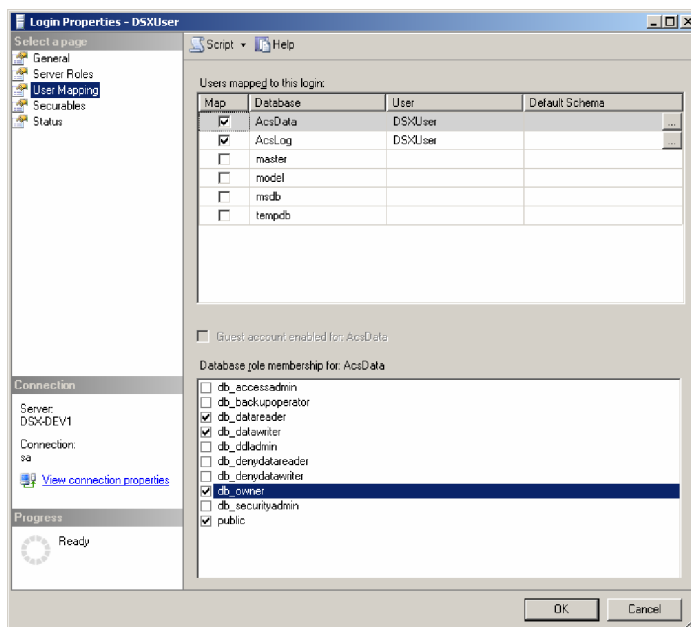
13. The first time that you run the DbSql program of WinDSX there will be a short delay and it will present a SQL login screen. You enter the *EXACT* name of the SQL Server that you are logging into along with a valid login name and password combination. Once this data is entered successfully the system will store it and you will not need to login again. This will need to be done at each Workstation.

14. When you have installed WinDSX in an instance on SQL Server you need to use this format in the server name. server\instance,_Port
    You only need the port number when you have changed the connect port in SQL from 1433 and 1434 to something else.
    server,_Port

    This is set using the SqlSetup.exe from the WinDSXSQL folder.

Note/// When updating WinDSX SQL use the instructions provided with the upgrade CD. It is imperative to keep the original CD.

Note /// WinDSX SQL Version 4.7 and higher requires the Software Key Monitor program (KeyMon.exe) and the USB Software Key to be installed on any PC in the System. See Page 16 for the Software Key Monitor installation instructions.

SQL Server Login Authentication

For Mixed or SQL Server Authentication select SQL Server Authentication and enter a Login and Password. When setting up the Client PCs the first time DBSQL.exe is started it will launch SQLSetup. Enter the Name of the SQL Server and the User Name and Password you entered in the SQL Server. This will be done on all PCs the first time the program is run.

For Windows Authentication or Named Pipes select Windows Authentication. This requires more setup in Windows and AD. When setting up the Client PCs the first time DBSQL.exe is started it will launch SQLSetup. Enter the Name of the SQL Server. Do not enter a User Name or Password. Rights and permissions must be given to the user in AD. This will be done on all PCs the first time the program is run.

For more information on using Windows and Active Directory Authentication see page 15.

Upgrading from WinDSX to WinDSX SQL

1. If you are running WinDSX version 1 or 2 update your software to 3.1.27 first then to 3.7 or higher. It is important that the WinDSX folder where the shared database reside be the one that is migrated each step of the way. This is typically the Comm Server PC. The Client PCs will be explained later in these instructions. The utility for moving the data from Access to SQL expects the data to be in the version 3 structure. If you run the Acc2Sql data migration utility on a database that is not in the version 3 structure it will not be able to migrate all of the data successfully. The SQL Software CD contains all of the versions necessary to migrate to SQL. If you are at version 1 or 2 uninstall and install 3.1.27 from the CD. If you are at 3.1.27 to 3.7 uninstall and load the newest 3.7 from the CD. Then finally uninstall 3.7 and install 4.8 from the CD. Be sure and run the DB.exe or DBSQL.exe once after installing each version.

2. While the WinDSX SQL software uses SQL Server for the database storage it still requires a shared folder for image storage, badge graphics, Icons, and WAV files. This is typically a folder on the network or Comm Server PC that was the Database Path (share) before the upgrade. All operators must have Full Control to the Local WinDSXSQL folder and to the Shared WinDSXSQL folder including the child objects (subfolders). If using Active Directory it is best to Publish the Shared folder then create a Security Group that contains all the operators of the WinDSX system. Allow the Security Group Full Control over the Published folder and all the subfolders. Besides having full control over the Local Folder and the Share Folder it is imperative that the Images subfolder in the Share does not have any Files set for Read Only.

3. Un-Install the existing Software on the Comm Server. Do Not Delete any files or folders. Install the latest WinDSX SQL Software into the same folder that you just uninstalled the older software from.

4. Configure the SQL Server and logon according to the instructions that start on page 10.

5. Run the SQLSetup.exe program. After about 30 seconds a window will appear that requests the name of the SQL Server you wish to log into along with a user name and password. Provide this data and the program will respond as to whether the login was successful or not.

6. Once the login is successful you are ready to move the existing data into the SQL Server database. To migrate the data locate the Acc2Sql.exe program located in the WinDSX folder on the Comm Server where you just installed the WinDSX SQL software.

7. After starting the Acc2Sql.exe program on the Comm Server you will need to accept the default settings and click on the "Move Data" button. A window will appear that requests the name of the SQL Server you wish to log into along with a user name and password. Provide this data and the program will login to the SQL Server and begin transferring the data.

8. When the data transfer is complete run the DbSql.exe program from the folder on the Comm Server where the WinDsxSql software was installed. This will start the WinDSX SQL database program and will allow you to examine the data that was just transferred.

9. In DataBase make sure that there are Access Levels defined and that the Card Holders have Images and Access Levels assigned to them. Also make sure the Badge Templates are still there and do not need adjustments to their layout.

10. Once you are satisfied that you have normal operations at the Comm Server you are ready to upgrade the workstations. Uninstall the Software on each Workstation and reinstall the WinDSX SQL software back into the same folder.

Note /// WinDSX SQL Version 4.7 and higher requires the Software Key Monitor program (KeyMon.exe) and the USB Software Key to be installed on any PC in the System. See Page 16 for the Software Key Monitor installation instructions.

Moving History from WinDSX to WinDSX SQL

After running Acc2Sql.exe to migrate the AcsData database into the SQL Server, you will notice that the Event History (Log) and Database History (DataLog) did not get migrated to the SQL database. The old historical records can be accessed through the old WinDSX software or if you choose can be imported into your new databases. Use these instructions for moving the event history and the database change history.

Be aware that this process could take some time to complete. Many factors such as the speed of your PC's, network bandwidth, and the size of the Log files will determine how long the import will take. The import routine could take a few minutes to several hours to complete.

After the upgrade to the SQL version of WinDSX, running History reports on specific Cardholders will require the use of the **First Name Sounds Like** and the **Last Name Sounds Like** fields for all history that was imported from the older system. All event and All card holder reports are ran as normal.

Data Preparation

DataLog.mdb (history of database changes) requires that three fields be renamed before the migration can take place. Open the DataLog.mdb with Microsoft Access. Select the DataLog table and then click on Design. Rename the following three fields. Table to TableName, Field to FieldName, Current to CurrentData. Close the DataLog.mdb.

Microsoft SQL Server Preparation

Start the **Management Studio** and right click the AcsLog database then select Tasks\ Import Data to start the SQL Server Import and Export Wizard.

AD Authentication

WinDSX SQL can now utilize complex logins and passwords facilitated by Active Directory in Windows™. Operator Logins can be authenticated by Active Directory instead of WinDSX.

To configure this, the WinDSX SQL Operators use the same Login Name as they do in Windows™. Their Windows Login name is entered under Operator Passwords. The Operator is assigned a Password Profile but is not assigned a Password.

When WinDSX SQL receives a login from an operator that does not have a password in WinDSX it sends the login request to Active Directory (AD) for authentication. If AD authenticates the operator they are given access to WinDSX SQL according to the Password Profile assigned to them.
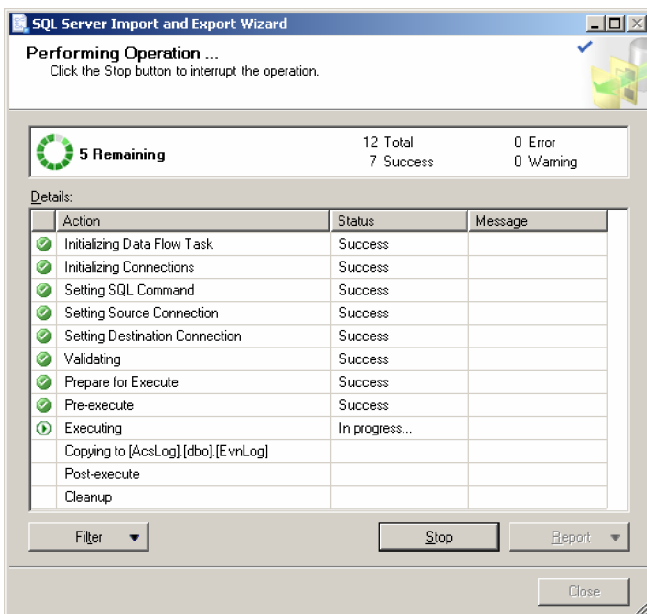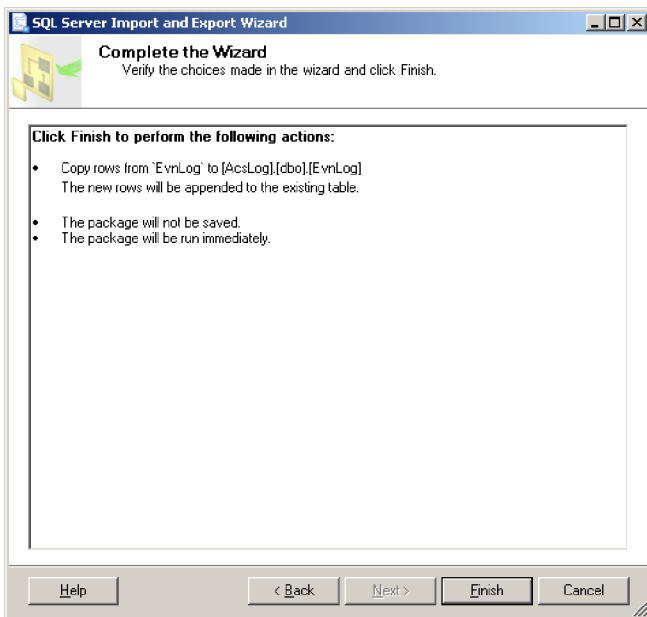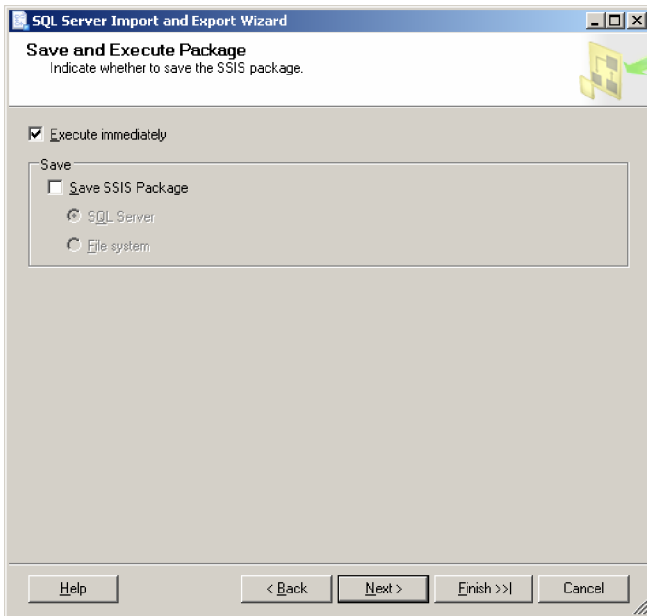
USB Features Key / KeyMon

These instructions are intended to assist in the installation of the WinDSX Software Key Monitor. The Software Key Monitor program (KeyMon.exe) supervises the presence of the USB connected Software Key. The USB Software Key is used exclusively by DSX to copy protect and enable the WinDSX SQL Software, Hot Swap Redundant Comm Server feature, Live (DSX) Image and Signature Capture, and DVR integration. The KeyMon.exe program and the USB Key need only to be installed on a single PC in the System for the software or enabled features to be functional on all PCs running WinDSX.

These instructions are intended as an addendum to the WinDSX installation instructions. If you have not already installed the WinDSX Software please do so now.

1. Select which PC will have the USB Key installed and will run the Software Key Monitor program. Consider that the program must be running at all times and the USB Key must be installed and recognized at all times for the protected software and features to operate properly and fully. The old Image Key used in older badging systems must now be replaced with the USB Software Key and the Software Key Monitoring program. There can only be one USB Software Key in a system. The Key can be modified in the field to incorporate new features.

2. Locate the HDD32.exe in the WinDSX Folder on the PC where the USB Key is connected. Double click on the HDD32.exe to begin the install. Click Next, then Finish on the Wizard pop up screens. The system will return a message indicating the installation was successful. This must actually be performed at the PC not through a remote session.

3. Plug the DSX USB Software Key into a free USB port on the Computer of choice. Do not connect the USB Key until the drivers have been loaded.

4. From the WinDSX folder on the same PC that the USB Key is installed and where the HDD32.exe was just loaded find the KeyMon.exe and run it. Once the Software Key Monitor program finds the USB Software Key, the KeyMon program will display a screen like the one shown on this page. To Close KeyMon click once on the small X in the top right corner of the status screen.

5. The KeyMon program must be started each time Windows is started and before running the WinDSX program. Double clicking on the executable from Windows Explorer can start the Key Monitor Program - KeyMon.EXE. The KeyMon.EXE can also have a shortcut created so that it is launched from the Windows Desktop before the WinDSX program is started. KeyMon can also be placed in the Windows "Startup" if desired or ran as a service.
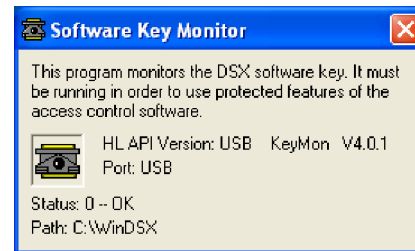
ReProgramming the Key

The USB Features Key can be modified in the field and have new features added to it. To order new features follow the instructions below. Send the file and your order and DSX will send you a reprogramming code you can update your USB Key with.

1. On the PC where the USB Key is installed located the WinDSX folder and then the ModifySwKey.exe program and run it.

2. Once the program appears click on Quit. In the WinDSX folder locate the HaspData.txt file. This will be the file you send DSX with your order.

3. DSX in return will send you back a new programming code. From the same PC you will run the ModifySwKey.exe program once again only this time you will enter the programming code provided by DSX and then click "Program"

Comm Server as a Service

With WinDSX Software Versions 3.7.34 and SQL Version 4.8.6 and higher the Communications Server program CS.exe can be run as a Service. This will allow CS.exe when configured properly to run as a Service on a PC that does not have a user logged into the Desktop.

The Communications Server program typically runs as a process in the background and is usually started by the launching of the workstation program (ws.exe) and is terminated when the workstation program is closed.

With this WinDSX upgrade you can now have the Comm Server program run as a service without having a user logged into the Windows operating system. This provides the ability for the Comm Server program to run on a manned or unmanned PC.

Below are the steps involved with setting the Communications Server program up as a service. There are several options in configuration but most will be covered in the following material.

10. You must be logged in as Administrator; you cannot install services if your login account is not Administrator.

11. Load the WinDSX or WinDSX SQL software on the PC that is to perform the Comm Server function. Configure this PC as the Comm Server.

12. Make sure Comm Server is fully operational communicating with controllers and with Client Workstations before configuring it to be a Service.

13. Copy the InstSrv.exe, SrvAny.exe, and CS as Service.exe programs from the Utilities folder on the distribution CD and paste them into the WinDSX directory where the software was just installed on the Comm Server PC.

14. Double click on CS as Service.exe. "This machine should do daily operations" should be selected unless you are setting another workstation to perform DailyOps Tasks. Click on the "Install CS as a Service" button. Click on OK when finished.

15. Go to Start/Settings/Control Panel and select Administrative Tools/Services verify that the DsxComm service was added. It should appear in the list of services.

16. Right click on DSXComm and select properties. Change the "Startup Type" to: Automatic. Go to the Log on Tab and change the "Log On As" to a: valid profile that has the appropriate privileges for your system. Click OK to save the changes. Close Services and Administrative Tools.

17. If you are going to use a shared directory on some other PC you will have to enter the database path using UNC. You cannot use a shared drive letter to refer to the database path. This also applies to the path for database backups in the Access version of Software not the SQL version.
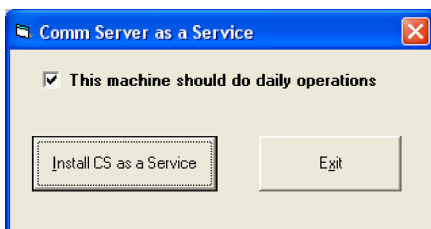
KeyMon as a Service

The Software Key Monitor program (KeyMon.exe) supervises the presence of the USB connected Software Features Key. The USB Software Key is used exclusively by DSX to copy protect and enable some features of the WinDSX Software, SQL DataBase, Hot Swap Redundant Comm Server feature, Live
(DSX) Image and Signature Capture, and DVR Integration. The KeyMon.exe program and the USB Key need only to be installed on a single PC in the System for the software or enabled features to be functional on all PCs running WinDSX.

These instructions are intended as an addendum to the WinDSX installation instructions. If you have not already installed the WinDSX Software please do so now.

1. Select which PC will have the USB Key installed and will run the Software Key Monitor program. Consider that the program must be running at all times and the USB Key must be installed and recognized at all times for the protected software and features to operate properly and fully.

2. Locate the HDD32.exe in the WinDSX Folder on the PC where the USB Key is connected. Double click on the HDD32.exe to begin the install. Click Next, then Finish on the Wizard pop up screens. The system will return a message indicating the installation was successful.

3. Plug the DSX USB Software Key into a free USB port on the Computer of choice. Do not connect the USB Key until the drivers have been loaded.

4. From the WinDSX folder on the same PC that the USB Key is installed and where the HDD32.exe was just loaded find the KeyMon.exe and run it. Once the Software Key Monitor program finds the USB Software Key, the KeyMon program will display a screen saying Status –OK. To Close KeyMon click once on the small X in the top right corner of the status screen.

5. You must be logged in as Administrator; you cannot install services if your login account is not Administrator.

6. Copy the InstSrv.exe, SrvAny.exe, and Keymon as Service.exe programs from the Utilities folder on the distribution CD and paste them into the WinDSX directory where the software was just installed.

7. Double click on KeyMon as Service.exe then click on the "Install KeyMon as a Service" button. Click OK when the task is complete.
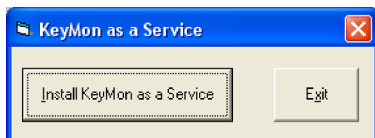
8. Go to Start/Settings/Control Panel and select Administrative Tools/Services verify that the DsxKey service was added. It should appear in the list of services.

9. Right click on DSXKey and select properties. Change the "Startup Type" to: Automatic. Go to the Log on Tab and change the "Log On As" to a: valid profile that has the appropriate privileges for your system. Click OK to save the changes. Close Services and Administrative Tools.

10. If you are going to use a shared directory on some other PC you will have to enter the database path using UNC. You cannot use a shared drive letter to refer to the database path. This also applies to the path for database backups in the Access version of Software not the SQL version.

Configuring WinDSX for Microsoft Terminal Services™

The Terminal Services Component of Windows Operating System can deliver the Windows desktop, as well as Windows based applications, to virtually any desktop computing device. This lets more people in an organization take advantage of the resources provided by a distributed computing environment.

Windows Terminal Services turns a Server into a centralized computer like the old days of mainframes and dumb terminals. All of the data processing is performed at the server, and the Client PCs display only the user interface and screen changes.

When using WinDSX with Terminal Server it is important to be aware of several configuration issues.

1. WinDSX Comm Server (CS.exe) cannot run from the same PC as Windows Terminal Server™.

2. The Shared DataBase can reside on either the Comm Server or a separate File Server or SQL Server.

Communications Server

1. Load the Software in the WinDSX folder on the Comm Server PC.

2. Run the DB.exe from that folder to make the appropriate changes. Under System/Setup/System Parameters change the Workstation Name and Number, enable Comm Server, and set the IP Address.

1. Change the DataBase Path to the location of the Shared Data Base Resource. This could be the WinDSX folder on the Comm Server, or a WinDSX folder on a separate File Server. Keeping the database on the Comm Server allows the system to run fully on the Comm Server if the File Server or Terminal Server is inaccessible.

Terminal Server

The WinDSX software can be loaded into a single WinDSX folder on the Terminal Server or into multiple folders. Using a single install on the Terminal Server provides Operator level of Audit Trail that records the Operator and their actions by their name but not which PC they were using. If multiple installs are used on the Terminal Server and each one is given a unique Workstation Name and Number in the WinDSX software, the Audit Trail if enabled, will record both the Operator and the Workstation they were using. Event Filters are another reason to use separate folders for each Client that is to run the software. The Event Filters, which determine what is visible in the Workstation program on each PC works on a Workstation level not on an Operator Level. Each client would have to run the program out of separate folders for the Event Filters to be different.

Printing Reports requires that each client have a different Install folder if multiple clients are to run reports at the same time.

DSX recommends multiple folders – one for each client.

1. Load the WinDSX Software into a WinDSX folder on the Terminal Server PC.

2. Create a Folder for each Terminal Server Client that will need to run the WinDSX Software. Be sure and give each one a unique name.

3. Copy the entire WinDSX folder into each of the Client Folders created in step 2.

4. Run DB.exe from each Folder to make the appropriate changes. Under System \ Setup \ System Parameters, change the Workstation Name and Number to be unique, and make sure that Comm Server is not enabled.

5. Change the database path to the location of the Shared Database Resource. This could be the WinDSX folder on the Comm. Server, or a WinDSX folder on a separate File Server.

Configuring WinDSX for Remote Desktop

For a similar application but smaller scale solution, Remote Desktop allows a WinDSX client PC to be remotely controlled. Do Not use Remote Desktop on the Comm Server.

1. Load and configure WinDSX or WinDSX SQL on a Client PC and configure it as normal. Set the DataBase Path to point to the Shared DataBase. Set the Workstation Name and Number to be unique. Set the Regional Time Zone and Daylight Savings options. Configure Event Filters if required.

2. Enable the Remote Desktop Feature in Windows.

3. Make sure that all remote users have a Unique Login and Password for access into the WinDSX application.

Creating Shortcuts to Start the Programs

1. After the Software Installation is complete use Windows Explorer to navigate to the WinDSX directory. To find Explorer select "Start" then "Programs" then "Windows Explorer".

2. Once you are in Explorer navigate to the WinDSX directory. Locate the three executable program files typically used. DB.exe which is the data base program, WS.exe which is the real time user interface with monitor and control windows, and CS.exe which is the Comm Server Program that actually communicates to the Intelligent Controllers and all of the PCs running the WS.exe (workstation) program.

3. The Comm Server program is launched by the starting of the Workstation Program on the PC that has the Comm Server option selected under "Setup/System Parameters" and is consequently shut down when the Workstation program is exited. You have the option of running the DataBase (DB) and the Workstation (WS) programs together by selecting the "Auto Start Workstation Program" option also located under "Setup/ System Parameters".

4. On a dedicated Comm Server PC the Comm Server program can be ran separately by launching the CS.EXE from a shortcut.

Creating Shortcuts

5. Decide which programs you wish to run, the DataBase Management program (DB.exe), the Workstation Monitor and Control program (WS.exe), and the Comm Server Program which is only run at the PC that will have the communications connection to the system. Then create shortcuts for those .exe programs files and place them on the desktop.

6. To create shortcuts on each PC that the software is loaded, follow these instructions. Using Windows Explorer navigate to the WinDSX directory and locate the *.exe files of the programs you wish to run from this PC. For example to run the database program locate and select DB.exe and click on the right mouse button then select "Create Shortcut". When the shortcut is created, it is automatically selected in Explorer. Drag the selected shortcut from Explorer onto the desktop. Once the Shortcut is on the desktop you are ready to launch the program. By selecting the Icon and clicking the right mouse button you have the option to rename the Icon from DB.EXE to whatever suits your situation. To run the Workstation Program separately, repeat this process for WS.exe. On a dedicated Comm Server PC a shortcut can be created for CS.exe.
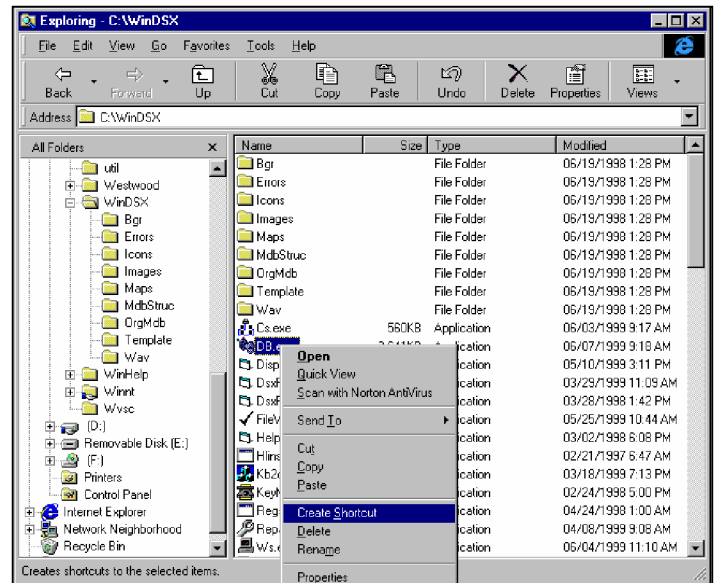
Making Shortcuts in Windows Explorer
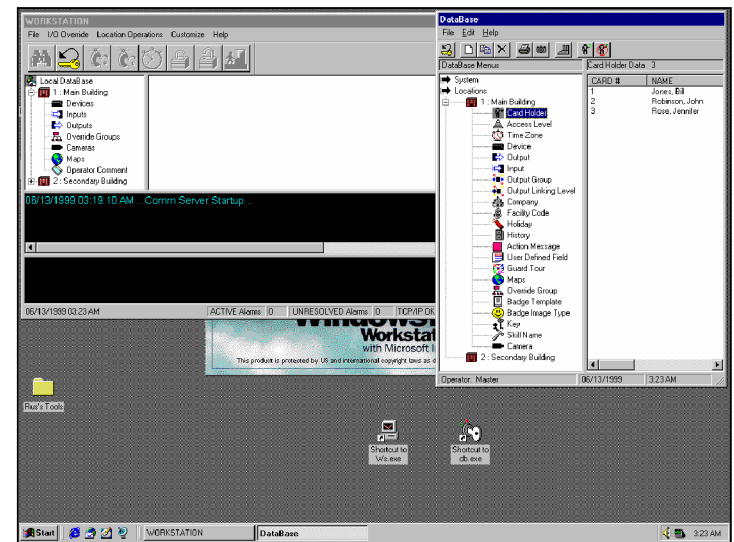
DataBase, Workstation programs and shortcuts

The Workstation Desktop shown above displays the DataBase and Workstation programs, their Shortcuts, and the two programs located on the Taskbar. Both programs can run at the same time.

Dedicated Comm Server PC

1. The Comm Server PC is the Windows Workstation that performs the communications to the field controllers. It is the only one in the System defined as the Comm Server in DataBase/System/Setup/System Parameters. The program is typically started and exited automatically when the WinDSX Workstation program (WS.EXE) is started and exited.

2. To run the Comm Server program (CS.exe) alone in a dedicated mode a shortcut can be created using the previous instructions. To make the Comm Server program visible, edit the shortcut properties and change the Target to *C:\WinDSX\CS.exe -visible*.

Starting WinDSX

1. Double click on the DB.exe Shortcut Icon to start the database program. The system will prompt for a password. **The default user name is *master* and the default password is also *master*.** The user name and password should be entered in lower case. The name and password must be defined in all upper case letters for the login to require capitalization.

Desktop Configuration

1. The Workstation Desktop shown below displays the DataBase and Workstation programs, their Shortcuts, and the two programs located on the Taskbar. Both programs can run at the same time.

Sizing and Shaping the Programs
2. The two programs can be sized using the sizing handle in the lower right corner of each program. Move the mouse pointer over the sizing handle and when it turns into two diagonal arrows, click the left mouse button and hold, then push or pull to change the shape and size of the programs.

3. The programs can be switched from the sized window to full screen and back by double clicking on the blue bar at the top of each program. The programs can sit on top of each other or be sized and shaped to fit on the screen together.

Switching Between Programs
4. The programs can be selected and brought to the top by clicking on the desired program button displayed on the taskbar at the bottom of the screen.

Non-Windows File Servers

To Install on Non Windows File Server
1. The WinDSX Software cannot be installed onto a Non Windows File Server but can be placed there. Install the software onto the Comm Server first. Follow all of the previous instructions when loading the software onto the Comm Server PC (the PC with the connections to the field controllers),

2. Once the Comm Server PC has been loaded and the database program has been run once, copy the entire WinDSX folder (directory) and all of its contents to the mapped drive that is to be the shared resource.

3. When the WinDSX folder has been copied to the shared resource run the database program from the local software installation (C:\WinDSX).

4. Change the DataBase Path to point to the shared WinDSX directory on the shared drive, set the Workstation Name and Number to something other than 1, set the Comm Server program options and the Comm Ports. This is done under DataBase / System / Setup.

5. Exit the DataBase program (Exit is located under File) and restart the program from the local C:\WinDSX directory on the Comm Server PC.

To Update a Non Windows File Server
1. Close the program on all PCs.

2. Rename the "WinDSX" folder (directory) of the Comm Server to "WinDSX1".

3. Copy the WinDSX folder from the File Server to the Comm Server.

4. Uninstall the C:\WinDSX from the Comm Server using the Add/Remove function found under Control Panel.

5. Install the new software into the C:\WinDSX directory of the Comm Server and run the DB.EXE program to complete the update.

6. Copy the WinDSX folder from the Comm Server to the File Server overwriting the WinDSX directory there.

7. Delete the C:\WinDSX folder of the Comm Server.

8. Rename the C:\WinDSX1 folder to C:\WinDSX.

9. Uninstall the C:\WinDSX of the Comm Server.

10. Install the new program into the C:\WinDSX of the Comm Server and run the DB.EXE from the same location (drive/directory) to finish the update.

Programming the System

1. Double click on DB.exe Icon to start the database program. The system will prompt for a password. **The default user name is *master* and the default password is also *master*.** The user name and password should be entered in lower case. The name and password must be defined in all upper case letters for the login to require capitalization on the entry. Press F1 for Help with any data entry screen.

2. **To Start with a Template Database**, a predefined database that can be used for a demo or just a starting point for new systems, follow these instructions. In DataBase, maneuver to System/Setup and select "Restore/Repair Data". Click on the Add Button and then select "Click Here to Restore Data from a Backup". On the Restore Data from Backup General Tab click on "OK". Navigate to the C:\WinDSX\Template\ directory and select either Templat1.zip or Templat2.zip for a two or four door system and click on the Open Button. Follow the prompts to finish restoring the data. This database can be modified and changed in any manner. Templat3 has badge templates for starting badging systems.

3. The **first** required item to be defined in the Setup portion of the program is Database Paths. This sets the location of the system database. If this is a single PC system use the defaults. If this is a LAN installation it could be the WinDSX directory of this PC or it could be a shared resource on the Local Area Network. LAN installations require that each PC that is to run the program have a drive mapped to the network resource. Universal Naming Conventions can be used.

4. The **second** required item to be entered is "System Parameters". These are the characteristics of this PC such as "Is this PC the Comm Server" and if so what is the TCP/IP address of this PC. When installing the Software on multiple PCs it is important to set the Database path for each PC to the same resource. It is also important when entering the System Parameters that each PC has a unique Workstation Name and Number. Do Not Use Workstation 1 or #1. The PC must have the TCP/IP protocol loaded prior to setting up the Comm Server. Also set the Regional Time Zone while in System Parameters.

5. Close the program by selecting File and then Exit. Restart the program and continue.

6. The **third** required item in Setup is Comm Ports, which are defined on the Comm Server only.

7. Once the setup portion is complete select Location from the Main DataBase Menu. If you didn't start with a Template database you will need to add one by clicking on the Add Button in the toolbar. When defining the Location set the "Connect Type" to "Direct" or "Modem" and enable any features desired under the "Yes/No Options Tab".

8. Once the Location is entered, double click on it in the menu tree to expand the location menu and define the following items in the order suggested. Location is first followed by Time Zones then Devices, Outputs, Inputs, Company, Facility Code, User Defined Fields, Access Level, and finally Card Holders.

9. When the system setup and database has been defined, you will need to exit the database program and the workstation program by selecting "File" then "Exit".

Bulk Loading of Cards

1. Cards can be added to the database in a quick and Bulk load fashion. These cards can be added to an existing card population

2. Copy the Bulkload.exe program from the WinDSX distribution CD to the WinDSX directory. The Bulk load program can be found in the Utilities folder.

3. Prior to executing the program the Database must be programmed with a Location, Devices, TimeZones, Company and at least one Access Level.

4. Add a card and give it all of the attributes you want all of the bulk-loaded cards to have. This includes, Company, Access Level, Linking Level, and StopDate and Time. Download this card and verify it works.

5. Double click on the BulkLoad.exe file in the WinDSX directory containing the target database.

6. Enter the Location Group # which is typically the Location number or the lowest location number in the group.

7. Enter the Card Number of the Card we want to clone or pattern after.

8. Enter the number of Codes to be loaded.

9. Enter the Code number to start from.

10. Click on the Load Codes button.

11. When finished select File and Exit to close the Bulk Load program.

System and Setup Menus

Below is a Map with definitions of the System and Setup Menus. Required items are numbered in the logical order of entry.

File Menu contains:
Change Password, Enable Multiple Selections, Exit

Edit Menu contains:
Add, Edit, Copy, Delete

Help Menu contains:
Contents, Search On, About DSX

Operator Log Off – Logs the
Operator off of the system and returns to the
log-in screen.

System/Setup Menu Tree

Operator Comment
This is where the Operator responses are defined.

Operator Password
Operator Passwords are where the operators
and their passwords are defined.

Password Profile
Password Profiles determine what
functions an operator password is valid for.

Reports
Reports are where all system data can be
printed out. History is found under Location.

System Parameters 2
System Parameters is where the PC Configuration is
performed. This includes: Alarm beep enable,
Comm Server enable, and Comm Server TCP/IP address.

DataBase Paths 1
DataBase Path points the software to the Location of the
database. Usually C:\WINDSX.

Add Button – performs the add function for
the database item selected in the menu.

Copy Button – allows for a selected data
record to be copied to a new record.

Delete Button – performs the delete function
for the database item selected in the menu.

Print Badge Button – instructs the system
to print the selected card holders badge.

Capture Image Button – accesses the live
video screen or the import image screen.

Who is in Report Button – builds a report
that shows which card holders are In and
at which reader their card was last used.

Activate / De-activate Card Holder
Card Holder status is easily changed
with these two Icons. Select one or
more card holders followed by the
Activate or De-activate Buttons.

Comm Ports 3
Where the communication serial Ports are defined. The Ports must first be defined in Windows for Direct and Modem connections,
LAN type ports must NOT be defined in Windows.

Event Filter
Event Filters determine what events and alarms are to be visible at this workstation. Event Filters are defined for each workstation.

Image Source A
Image Source is where the video inputs and sources for the badge system are defined.

BackUp DataBase/History
BackUp DataBase is the utility that creates compressed or non-compressed backups of the database, optionally includes images, and
places the backup in the location specified by the operator. BackUp History is the utility that creates compressed or non-compressed
backups of the system history.

Location Menus

Below is a Map with definitions of the Location Menu. Required items are numbered in the logical order of entry.

Restore/Repair Data
Restore/Repair Data is the utility that restores DataBase BackUps and that checks, corrects, and organizes the database.

Locations 4
Location is where each site (Master and Slaves) is defined. The location information includes the method of communication to the site Master controller. If the location is a modem-controlled site, this is where the panel and PC phone numbers are defined. Location is also where system features (such as I/O Linking and Anti-passback) are enabled and disabled.

Card Holder 13
Card Holder is where all of the Card Holders are defined, given access codes, and assigned access levels. Card Holder User Defined Fields and Phone Numbers are also entered here.

Access Level 12
Access Level determines what readers, on which days, and at what time an access code will operate.

Time Zone 5
Time Zone is where the time of day and day of week schedules that control the system are defined. Time zones are responsible for the auto locking and unlocking of all doors, the auto arming and disarming of all inputs, and the scheduled operation of cards.

Device 6
Device is where each reader and controlled door is defined. This includes unlock and held open times and the reader type.

Output 7
Output is where the system output relays are defined. Outputs are what control the electric lock or other electrically operated device.

Input 8
Input is where the system monitoring points are defined. This includes the door position switch and exit request.

Linking Group
Linking Group is where the system inputs, outputs, and time zones can be placed in a group and given a response. When an Input, Output, or Access Code activate a linking group, the components defined in the group will follow their pre-programmed response.

Linking Levels
Linking Levels are the means in which Access Codes activate a linking group based on which reader the code was used.

Company 9
Company is a method of grouping card holders for easy reporting and card manipulation.

Facility Code 10
Facility Code is the manufacture's batch number for the cards being used. DSX allows for multiple facility codes.

Holiday
Holiday sets the Dates in which the time zones must run their 3 possible holiday schedules instead of the normal day of week schedule. Each holiday can be marked as holiday 1, 2, or 3, which corresponds to the holiday 1, 2, and 3 overrides on each time zone.

History
History is the location of the event report writer. In history you now have the ability to create custom reports and save the configurations. History allows for a time and date selection of all or just chosen events. This data can be sent to the printer, set up under Windows, and the print job can be previewed before it is sent to the printer. These pre-configured history reports makes accessing the history for the same set of parameters, more than once, less tasking.
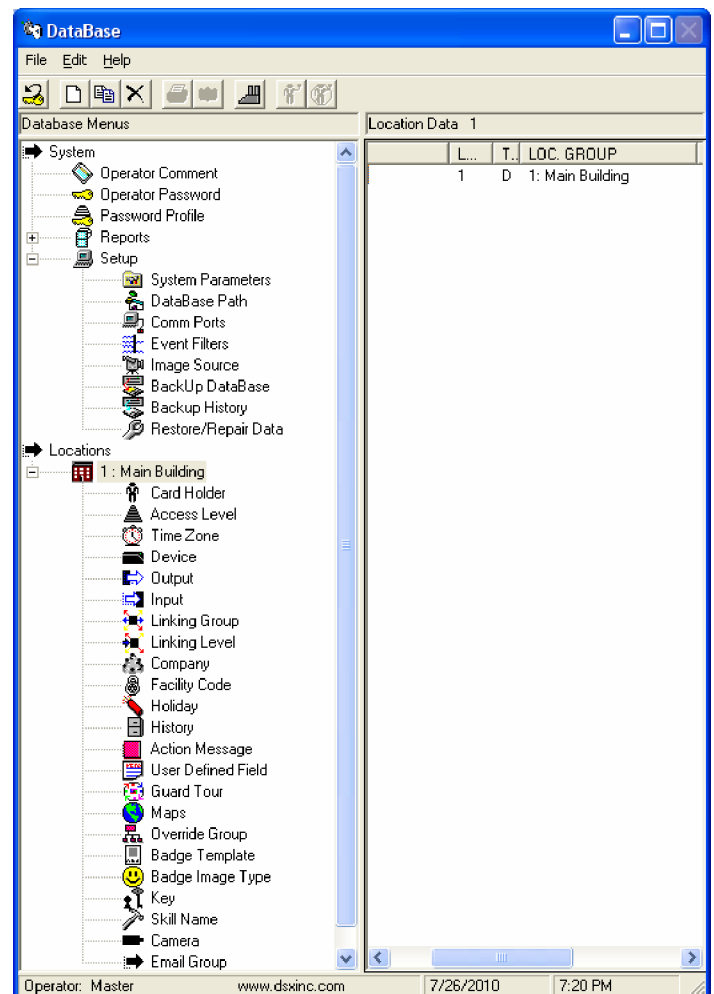
Action Message
Action Messages are the predefined response plans that instruct the operator on what action to take when a particular alarm has occurred, including communication loss. The Action Messages can also be transmitted out a serial port for 1 of 4 different conditions.

User Defined Field 11
User Defined Fields are custom data fields that can be defined to record and search personal information about each card holder. This can include car tag numbers, employee ID numbers, supervisor, and training dates.

Guard Tour
Guard Tour is where the predefined routes for security personnel are defined. The Tours specify in what order the security guard must reach predefined tour stations and what action is necessary and in what time period the action must be taken. If the guard does not make the tour station and perform the designated action within the specified time frame an exception alarm is generated.

Maps
Maps is the location where the graphic alarm maps are imported into the system, and the input and output Icons are inserted. Multiple graphic file type capability allows you to import almost any type of drawing. The Maps are placed in the Maps subdirectory under WinDSX (C:\WinDSX\Maps\). If this is a LAN installation the Maps subdirectory on the shared resource is where the graphic alarm maps would be placed.

Override Groups
Override Groups are groups of inputs or outputs that can be controlled simultaneously by placing the inputs or outputs in a group and assigning the group an Icon for both states. The Icon displays a general summary status for all points in the group. The Icon also provides a means for conveniently controlling all of the points in the group at the same time. The Override Group is defined in database but used in the workstation program.

Badge Template C
Badge Template is the location that the badge layouts are constructed and assembled. Any graphics to be used in the badge layouts should be placed in the BGR subdirectory under WinDSX (C:\WinDSX\BGR\). If this is a LAN installation the BGR subdirectory on the shared resource is where the badge graphics would be placed. Badge templates can be linked to a company. When the card holder data is entered and the person is assigned a company, the appropriate badge layout is automatically selected. This may vary with departments or card holder status such as visitor.

Badge Image Type B
Badge Image Type is what connects the image sources to the badge template. The Image Type names and determines what the source for the image will be and what the capture sequence is. The capture sequence sets what order this image is taken if there are multiple images to be taken for each card holder. This includes mug shots such as front or side, or it could be signature or fingerprint devices that provide a source. Image

Type also determines if this particular Image will be the one that is displayed with the card holder when the card holder is selected in the database and if the image should be stored in black and white.

Key
Key Logging is the recording, assigning, and reporting of conventional metal keys.

Skill Name
Skills can now be defined and assigned to card holders. Skills can be "Electrician", "Brick Layer" etc.

Camera
CCTV camera control is now available with Version 2.0.0 and higher. A workstation comm port can be defined for connection to a CCTV matrix system for full camera control such as Pan, Tilt, Zoom and other special functions. Each Cameras are separately defined with the appropriate control commands.

Help
Help is only a F1 keystroke away. From any menu or data entry screen press the F1 function key for a Help window. Use the mouse to navigate to the field or item in question. When the pointer turns from an arrow to a pointing hand you have reached a Help Field. When over a help field click the left mouse button for help on that area, data entry field, message, or Icon.
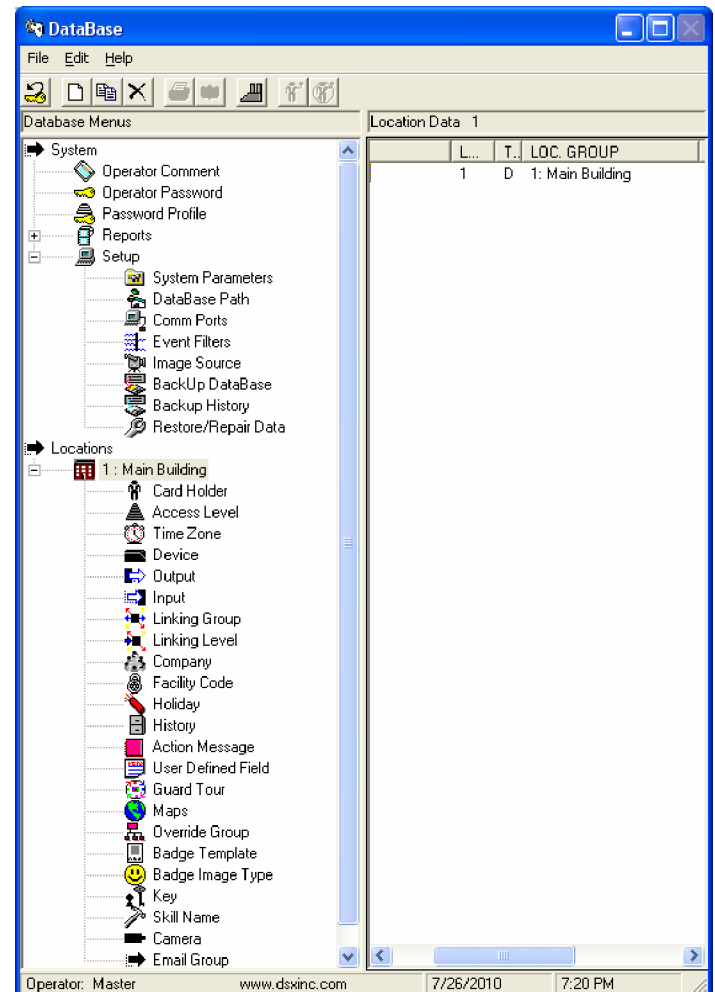
Badging Setup

You can now run the WinDSX DataBase program and make the following modifications to enable live video capture.

4. Once you are in the WinDSX DataBase program the first item to be defined is the Image Source under System>Setup>Image Source. Image Source is where the video inputs and sources for the badge system are defined.

5. Next you will want to define the Image Type which can be found under Location>Image Type. Badge Image Type is what connects the image sources to the badge template. The Image Type names and determines what the source for the image will be and what the capture sequence is. The capture sequence sets what order this image is taken if there are multiple images to be taken for each card holder. This includes mug shots such as front or side, or it could be signature or fingerprint devices that provide a source. Image Type also determines if this particular Image will be the one that is displayed with the card information when the card holder is selected in the database and if the image should be stored in black and white.

6. The last item to be defined is the Badge Template. Badge Template is the location where the badge layouts are constructed and assembled. Any graphics to be used in the badge layouts should be placed in the BGR subdirectory under WinDSX (C:\WinDSX\BGR\ ). If this is a LAN installation, use the BGR subdirectory of the shared resource. Badge templates can be linked to a company. When the card holder data is entered and the person is assigned a company, the appropriate badge layout is automatically selected. This may vary with departments or card holder status such as visitor.

Lumenera Camera Setup

Before setting up the DSX Lumenera Camera it is important to have installed the USB Software Key and have the Software Key Monitor program running (see page 16).

Installing the Camera

1. Mount the DSX Lumenera Camera to the Tripod.

2. Plug the supplied power adapter to an AC receptacle and into the round connector on the side of the camera.

3. Load the Driver from the CD that accompanies the Camera accepting all the defaults.

4. Connect the supplied USB cable to the Camera and to the PC. The Image below shows the Camera cable inserted into a USB port adjacent to where the Image Key is installed. These do not have to be on the same PC.
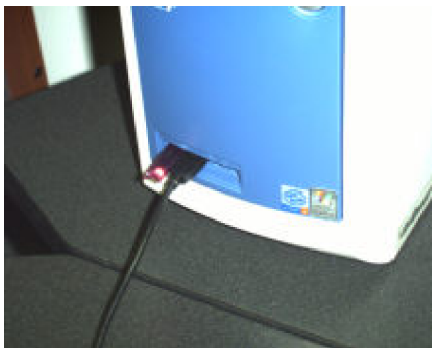
Configuring the Camera

1. Copy the CameraSetup.exe program from the Utilities folder on the WinDSX Software Distribution CD and paste it into the WinDSX folder on the PC where the Camera is to reside.

2. Place the Card Holder position (chair) 18inches from the back drop. Place the Camera 6 feet from the Card Holder position. Zoom in until the Card Holder fills most of the viewing area with a small gap between the top of their head and the top of the screen.

3. Run the CameraSetup.exe program and select "Show Video". Adjust the Camera Flash and white balance. Press F1 for more information.

4. When the Camera adjustments are finished select "Save and Exit". Press F1 in the setup program for more help.
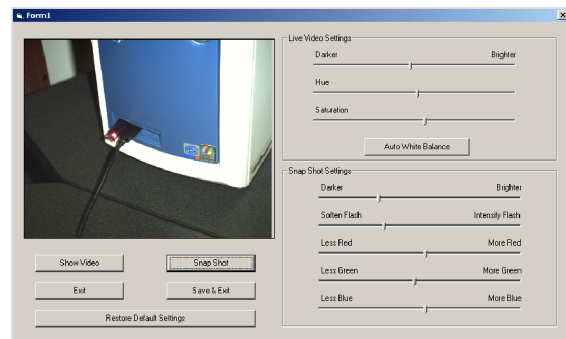
In the DataBase program under: System/Setup/Image Source

A. Define an Image Source and select Lumenera for the Source Type.

B. Select the Image file format that you want the pictures to be saved as.

C. Set the amount of compression 2 = minimum and 20 = maximum for the saved image. Less compression = higher resolution pictures and larger image files.
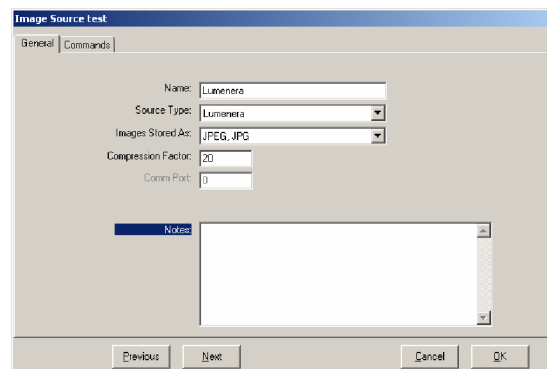
In the DataBase program under: Location/Badge Image Type

A. Define the Badge Image Type by selecting Lumenera (or what ever you named the Lumenera Image Source) for the Image Source.

B. Set the Capture sequence to 1 for this to be the initial image taken of the card holder.

C. Select "Display this Image with Card Holder Name".
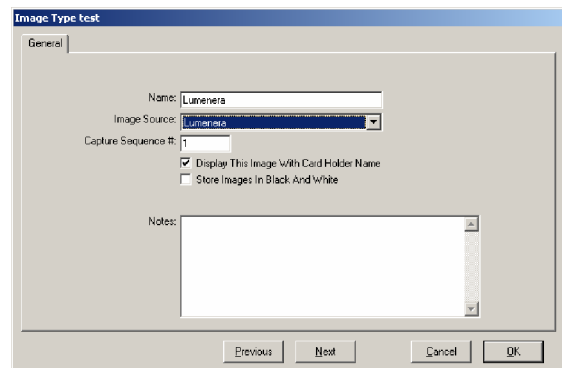
CCTV ASCII Alarm Output

Overview

The WinDSX CCTV Interface allows for input status change and /or alarms on the System to automatically signal a CCTV System and instruct it to perform any preset function available such as: lock onto a predetermined camera, start recording with a time lapse recorder or perform other pre-defined functions. This RS-232 connection between the WinDSX Comm Server and a CCTV Switcher eliminates the need for independent dry contact closures for each camera position and function.

All inputs in the WinDSX System can be individually programmed to transmit up to four unique ASCII character strings through multiple comm ports on the Comm Server. One character string might lock in a particular camera position on the alarming switcher, while another might put the switcher back into the sequence mode.

Each input can be programmed to transmit a unique ASCII character string for alarm and one for restoral through a serial port and a unique ASCII character string for an abnormal condition and one for a normal condition through the same or different serial port.

Each predefined ASCII character string is up to 65,000 characters long and has full use of all the ASCII control characters such as "return" and "line feed". The character strings are defined under "Action Messages" in the database. Then up to four different Action Messages are assigned to any or all inputs.

The serial port of the Comm Server that is used to interface with the video switcher is defined in the Setup portion of the WinDSX software. The serial port's baud rate, word length, stop bits, and parity are set to match the video switcher.

Programming

In the DataBase "Action Messages" are where the ASCII Output commands are defined. Those messages are then assigned to the inputs that are to trigger them.

When defining an action message to be transmitted out a comm port, you can insert ASCII control characters such as return or line feed into the text by placing a \x## in the message. Where ## is shown you would place the hex value of the desired ASCII character. The setting for a line feed would be \x0A. For a carriage return it would be \x0D. Any ASCII control character can be transmitted using this format. The above examples use the number ZERO not the letter O.

The structure used to insert a 1/2 second delay in the transmission of a message is \~ (back slash tilde) anywhere these characters are found the system will pause for 1/2 second before sending the remaining data in the message.

In order to send a backslash character in a message you would type two back slash characters in a row \\. For example: to send a 3\a the string would be -   \3\\a

If you are not inserting a line feed or carriage return at the end of the message, use the mouse to move the cursor to the next blank line before clicking on OK to save.

Input Status Change Message

Under System/Setup/Communications Ports set the Comm Port parameters to match the communications port of the device you are connecting and transmitting to for status change.

Under Input/Icons/ASCII Output enter the number of the Comm Server PC's serial communication port that the system should transmit Input normal and abnormal status change messages from. If this feature is not used enter 0. Then enter the Action Message that will be transmitted out the assigned communications port of the Comm Server when this input becomes faulted. Next enter the Action Message that will be transmitted out the assigned communications port of the Comm Server for normalization of this input. This Action Message is transmitted when the input becomes normal from a faulted condition.

Input Alarm Message

Under System/Setup/Communications Ports set the Comm Port parameters to match the communications port of the device you are connecting and transmitting to for alarm conditions.

Under Input/Icons/ASCII Output enter the number of the Comm Server PC's serial communication port that the system should transmit Input alarm and restoral messages from. If this feature is not used enter 0. Then enter the Action Message that will be transmitted out the assigned communications port of the Comm Server when this input goes into alarm. Next enter the Action Message that will be transmitted out the assigned communications port of the Comm Server for restoral of this input. This Action Message is transmitted when the input becomes normal from an alarm condition.
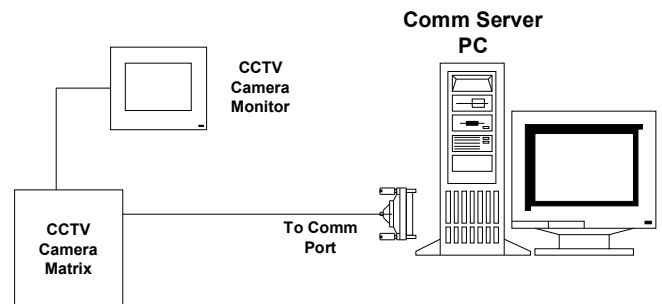
Overview

Alarm Echo allows a WinDSX Host PC to forward selected alarms during a specified time zone to a WinDSX Comm Server at a Central Monitoring Site. When enabled the WinDSX Remote Site PC (comm server) can report alarms offsite to another WinDSX Host PC using a dial-up modem. For example: In an application where the system PC is on the premises of an End User who administers and monitors activity during normal business hours (Remote Site), there may be a need for alarm activity to be monitored after hours at an offsite Central Monitoring Site. All Alarm and card holder activity will be stored at the Remote Site, only selected alarms will be reported to the Central Site.

Alarm Echo Configuration for Central Monitoring Site

A. Under Setup – Comm Ports, be sure there is a comm port defined as a modem port and a modem is attached for this use.

B. Add a Location that will be used as a monitoring location. This location number will be used at the Remote PC site.

C. Under Location – General, enter the phone number of the modem at the remote site under Panel Phone #.

D. Under Location – Numeric Options, select Connect type as Modem. **Note//** Do not select Auto Poll and Download.

E. Add all Devices and Inputs that are to be echoed from the Remote Site with the same names used at the remote site. The names and addresses are all that must be defined.

F. Under Location – Y/N Options, must select Remote Control Location.

Configuration for Remote Site

A. At the Comm Server under Setup – System Parameters – Communication Server, select the Echo Alarms check box. Add the phone number of the Central Monitoring Site modem. Also enter the Time Zone from location 1 that determines when the alarms should be echoed.
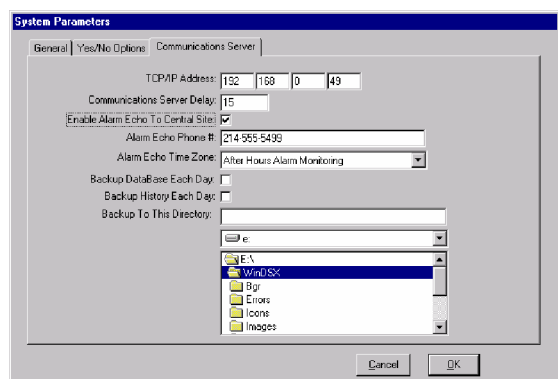
B. At the Comm Server under Setup – Comm Ports, be sure Not to Define the Modem Port. This modem is for Alarm Echo only and is configured in the ae_settings.txt file located in the \WinDSX\RunData folder of the Comm Server.
Find the \WinDSX\RunData folder and locate the ae_settings.txt file. In the file locate the section on Echo Comm Port and set the Value to the Comm Port Number that the Alarm Echo modem is attached to.

C. Under Location – Numeric Options, enter the location number that was obtained from the Central Monitoring Site in the "Location # to Use for Echoed Alarms. This is the alias location number the remote PC will use to transmit alarms to the Central Monitoring Site.
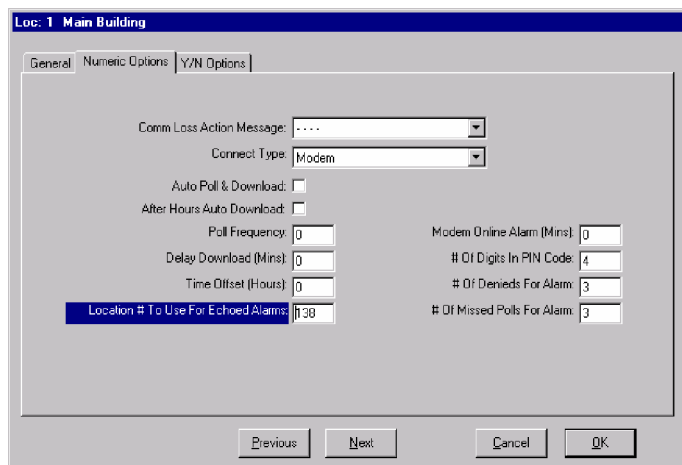
D. Under Location – Y/N Options, select Echo Location Alarms if Location type alarms are to be reported.
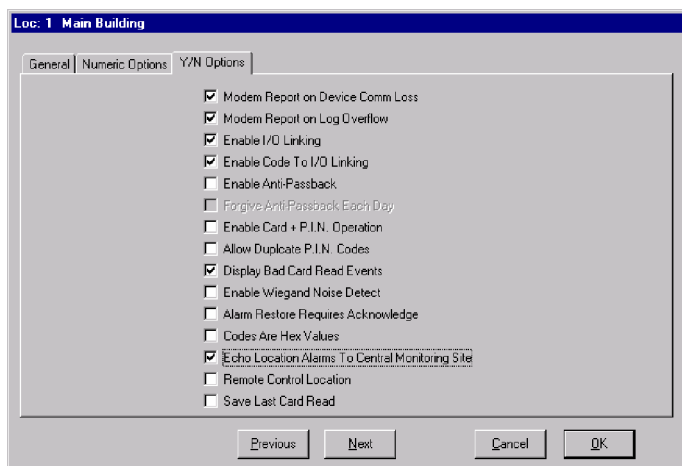
E. Under Device – Options, select Echo Device Alarms if Device type alarms are to be reported. Do this for each Device to be reported.

F. Under Input – Options, select Echo Alarm to Central Monitoring Site for each input to be reported.

Remote Control / Diagnostics

Overview

This allows a central station operator to call a proprietary site and control inputs, outputs and view devices (readers) without performing a download or affecting the downloaded data. The WinDSX comm server in the central station will call the comm server PC of the local WinDSX system to perform Input and Output Control to its locations.

Central Monitoring Site Configuration

For the central station to call the remote proprietary site certain data must be defined in the central station database.

1. Add a Location and define the "Connect Type" as Modem. Once defined this location number will be entered at the remote site under Location – Numeric Options, Location # to use for Echoed Alarms.

2. Under Location – Y/N Options select Remote Control Location if this location allows the control of the Inputs and Outputs from the Central Monitoring Site.

3. Add and define all of the same Devices, Inputs, and Outputs that are defined at the remote site.

Configuration for Local Site

1. The Comm Server PC at the customer site typically has at least one modem comm port with a DSX dial-up modem. This modem and comm port are not defined in WinDSX. This modem is for Alarm Echo only and is configured in the ae_settings.txt file located in the \WinDSX\RunData folder of the Comm Server. Find the \WinDSX\RunData folder and locate the ae_settings.txt file. In the file locate the section on Echo Comm Port and set the Value to the Comm Port Number that the Alarm Echo modem is attached to.

2. At the Comm Server under Setup – System Parameters - Communication Server Tab, check the Echo Alarms selection box. This must be enabled even if Alarm Echo is not used. If alarm echo is not used the Echo phone number and time zone fields do not need to be populated.

3. Under the Location definition on the Numeric Options Tab enter the Location number from the Central Monitoring Site. This location number will be entered under Location – Numeric Options, Location # to use for Echoed Alarms. For example: The Local site may be addressed as Location 1 for the database on the Local PC, but when communicating with the central monitoring site it may need to be reported as a different location number to avoid location address conflicts.

Import Holidays and Companies

Overview

The WinDSX API accommodates managing Holidays and Companies through the same method as Card Holders.

Below is a description of the file that other programs can create to Add Holidays and Companies into the WinDSX DataBase.

1. The DB.exe program on the Comm Server or optionally on the DailyOps PC watches for a ^imp##.txt file in the shared database directory every 15 seconds. If the file exists the data is imported and the file deleted.

2. Command Rules
   • All Commands are single character.
   • Command Characters are case insensitive.
   • Commands must appear as the 1st non space character in the line.
   • Any line whose first non-space character is not a recognized command is ignored.
   • Any command requiring additional fields must have one space between each field of the command.
   • The text file is created and placed in the shared WinDSX database folder.

File Name = ^imp01.txt
File Structure for Holidays:

T Hol (following data is for the Holiday table)
F Loc ^1^^^ (specifies location number)
F Date ^12/25/2007^^^ (specify date in US format)
F Type ^1^^^ (specify the type as it relates to time zones)
F Name ^New Years^^^ (the name of the holiday)
F Reoccurring ^1^^^ (reoccurs each year) 0 = Off and 1 = On
W (write the data)
(Location and Date are order specific and must be first in the file. It is recommended that all fields are in this order and all fields are complete.)

File Name = ^imp01.txt
For Structure for Companies:

T Company (specifies the Company Table)
F LocGrp ^1^^^ (specifies the Location Group)
F Name ^XYZ Corp^^^ (Name of the Company)
F Phone ^1^^^ (phone number)
F Fax ^0^^^
F Badge ^DSX^^^ (name of the associated badge template)
F Contact ^ME^^^ (contact person for company)
F Suite ^201^^^   (suite #)
F NoUseDays ^12^^^^ (use it or lose it days of inactivity)
F Notes ^These are notes^^^
W (write the data)

Card Entry Defaults

Default card settings can now be defined for each workstation. The information below describes the method that can be used to establish default card settings for each WinDSX workstation. The default settings will be applied to any new card that is added to the system from this workstation.

1. Each workstation can have it's own card default settings. The settings are stored in a file called CardDflt.txt. If a CardDflt.txt file exists in the local WinDSX directory, the settings that are found there will be the default settings applied to each new card that is added from this workstation.

2. Command Rules:
   - Command characters are case insensitive
   - Commands must appear as the 1st non-space character in the line
   - Any line whose first non-space character is not a recognized command is ignored
   - Any command requiring additional fields must have <u>one</u> space between each field of the command.

3. Field data must be preceded by a single ^ character and followed by three ^ characters.

Example CardDflt.txt file:

LocGrp ^1^^^	(Sets the location group that Uses, StartDate, StopDate and Gtour apply to)
Uses ^12^^^	(Number of uses defaults to 12)
StartDate ^0^^^	(Start Date offset is 0. (Use today's date)) This is a date offset or rolling date
StopDate ^1^^^	(Stop Date offset is 1 day. (Today plus one day)) This is a date offset or rolling date
StartDateFixed ^1/1/2004 09:00^^^	(Start Date is MM/DD/YYYY and Start Time is 24 hour format)
StopDateFixed ^12/31/9999 10:00^^^	(Stop Date is MM/DD/YYYY and Stop Time is 24 hour format)
GTour ^0^^^	(Guard Tour is false. Set to 1 for true)
Loc ^1^^^	(Establish which location the following ACL and OLL apply to)
Acl ^Perimeter doors^^^	(spelled exactly the way it is shown in database)
Tacl ^Executive doors^^^	(spelled exactly the way it is shown in database)
Oll ^2^^^	(Location 1 output linking level is set to 2)
TaclStartDate ^0^^^	(Temporary Access Level Start Date offset is 0. (Use today's date) This is a date offset
TaclStopDate ^1^^^	(Stop Date offset is 1 day. (Today plus one day) This is a date offset or rolling date
TaclStartDateFixed ^05/17/2003^^^	(Temporary Access Level Start Date fixed is actual date in US format)
TaclStopDateFixed ^12/25/2003^^^	(Temporary Access Level Stop Date fixed is actual date in US format)
Loc ^2^^^	(Establish which location the following OLL applies to)
Oll ^1^^^	(Location 2 output linking level is set to 1)
Apb1 ^I^^^	(Location 2 Zone 1 Anti-passback status is set to In) You can only set zone 1 status!

"LocGrp" commands can precede "Uses", "StartDate", "StopDate" and "Gtour" commands. This allows these parameters to be applied differently for different location groups. If the LocGrp command is not used these parameters apply to all locations.

"Loc" commands must precede "Acl", "Oll", and "Apb1" commands. The data value assigned to the "Acl" and "Oll" fields is the access level name or output linking level number, not the name. You must know the number of the "Acl" or "Oll" that you want to define. The access level and output linking levels numbers can be viewed in the data base program by listing the access level or output linking levels to the screen.

It is not necessary to define all of the fields. If you only wanted to establish a default number of uses the file could only contain the "Uses" command and data.

Start and Stop Dates are date offsets while Start and Stop Date Fixed is an actual date. Use either the offset or the fixed date in the Start and Stop Date fields. The same is also true for Temporary Access Level Start and Stop Dates. It is possible to use a Start Date (offset) with a StopDateFixed.

Database Management API

The inherent ASCII Import feature of WinDSX allows external programs to add, edit and delete cardholder data in the WinDSX software. It can be used to input the initial cardholder list or to provide a live link to some other program that needs to manipulate the cardholder data on a regular basis. The WinDSX Software scans its database resource (shared database folder) every 15 seconds for an import text file and automatically imports the data and initiates an incremental download to the system controllers.

The ^IMP##.txt file should be placed in the same directory as the shared database. Multiple ^IMP##.txt files may exist at the same time differentiated by the ##. Example: there could be 3 files waiting to be read and they would be named ^IMP1.txt, ^IMP2.txt, and ^IMP3.txt. It is advisable to not append data to an existing file but rather create a new file for each new set of data. The system could be in the middle of reading an existing file at the same time that you were appending it. Once the file has been imported it is automatically deleted.

Command Rules:
- All commands are single character
- Command characters are case insensitive
- Commands must appear as the 1st non-space character in the line
- Any line whose first non-space character is not a recognized command is ignored
- Any command requiring additional fields must have one space between each field of the command.

Commands:

I   ID Command
Contains the data used to identify a particular Names record. The ID command marks the beginning of a new set of records. All table commands following an ID command will be associated with the Names record specified by the ID command. There are 3 fields required to identify the Names record. L# defines the location group number. U# defines the number of the UDF field that will be used to identify the Names record. ^ddd^^^ indicates the data that will be found in the UDF field specified. These three items allow the program to establish which names record the following table commands will be related to.
Example:I L1 U2 ^ddddddd^^^ (L1 = LocGrp 1, U2 = UDF 2, ddd = data)

T   Table Command
Identifies the table that the following field commands will be applied to. Valid tables are Names, UDF, Images, and Cards.
Example: T Names

F   Field Command
Identifies a fieldname and data to be applied to that field. Must be a valid field name of the current table.
Example: F LName ^ddddddd^^^   Date fields must be formatted with a 4 digit year

W   Write Command
Used at the end of table field definitions to commit data to the database.

D   Delete Command
Used at the end of table field definitions to delete from the database. Using the Delete command on a card number removes the card records from all Locations in the Location group.

P   Print Command
Used at the end of table field definitions to print this cardholder with the badge template that is assigned to the company they are associated with.

U   Update Command
This command will only update an existing record. The difference between the [**U**]pdate and the [**W**]rite command is that the Write command can be used to either add a new record or update an existing record. The Update command can only Update an existing record it will not add a new record. [For example: you send a command to edit the PIN field of a code that does not exist. If you use the Write command it will create a new card with the code you specified and set the PIN to the value you specified. If you use the Update command there will be no change to the database.]

Sample with Field Definitions:

Example:

I L5 U1 ^123456789^^^	(Associate records with Name in LocGrp 5 with 123456789 in UDF 1)
T Names	(Following field records are for the Names table)
F FName ^Jennifer^^^	(FName field of the Names table is set to Jennifer)
F LName ^Rose^^^	(LName field of the Names table is set to Rose)
F Company ^DSX Access^^^	(Company is set to "DSX Access" company) Company name not number.
F Visitor ^0^^^	(Visitor is set to False) If visitor is true make sure the access and linking levels assigned are available to visitors.
F Trace ^1^^^	(Trace is set to True)
F Notes ^These are notes^^^	(String to be stored in the notes field of the card holder)
W	(Write Names data)
T UDF	(Following field records are for the UDF table)
F UdfNum ^1^^^	(UdfNum is set to 1)
F UdfText ^123456789^^^	(Text for UdfNum 1 is "123456789") This is adding the unique identifier into the system
W	(Write UDF 1)
T UDF	(Following field records are for the UDF table)
F UdfNum ^2^^^	(UdfNum is set to 2)
F UdfText ^Some More Text^^^	(Text for UdfNum 2 is "Some More Text")
D	(Delete UDF 2)
T Images	(Following field records are for the Images table)
F ImgType ^1^^^	(Image Type is set to 1)
F FileName ^c:\MyPic.jpg^^^	(Import file at "c:\MyPic.jpg" [System will change the file name])
W	(Write Image data)
T Cards	(Following field records are for the Cards table)
F Code ^6347^^^	(Card code is set to 6347)
F PIN ^1234^^^	(PIN is set to 1234)
F StartDate ^1/1/2004 09:00^^^	(Start Date is MM/DD/YYYY and Start Time is 24 hour format)
F StopDate ^12/31/9999 10:00^^^	(Stop Date is MM/DD/YYYY and Stop Time is 24 hour format)
F CardNum ^6347^^^	(Imprinted Card Number is set same as code)(Can be same or different as Code – Optional)
F NumUses ^9999^^^	(NumUses is set to 9999 / 9999 - does not decrement)
F GTour ^0^^^	(Is this card to be used with Guard Tour 0=False /1=True)
F APB ^0^^^	(Is this card to override AntiPassback 0=False /1=True)
F Loc ^5^^^	(Location 5 is specified for the following Access Levels and Output Linking Level)
F AddAcl ^Front Door ACL^^^	(exact spelling of the access level being added)
F AddTempAcl ^Back Door ACL^^^	(exact spelling of the temporary access level being added)
F AclStartDate ^05/01/2004^^^	(Temporary Access Level 14 is set to commence and supersede access level 12 on May 1st 2004)
F AclStopDate ^05/05/2004^^^	(Temporary Access Level 14 is set to relinquish control to access level 12 on May 5th 2004)
F OLL ^3^^^	(Output Linking Level is set to 3 for location 5. Other Location numbers and output linking level numbers can be inserted here to assign different linking levels to this card for other locations in the loc group)
F Notes ^These are notes^^^	(String to be stored in the notes field of the card)
W	(Write Card data) (required)
P	(Print this card holder with the badge template assigned to the company they are in) (optional)

- Deleting a Names record will cause a cascading delete of all UDF and Card records associated with the Names record. To delete an individual UDF or Card record simply issue the ID command and then use the appropriate Table command to identify the UDF or Card followed by the Delete command instead of the Write command.

Note/// In the WinDSX DataBase there are several things that must be in place for the import to work. All of the required data such as Location, Devices, TimeZones, Access Levels, and Companies must be defined first. There must be at least one UDF field defined for a unique identifier. In these examples it is UDF 1. This can be the code number or other unique number or can simply be any unique incrementing number. There can be no spaces or tabs at the end of each line.

Field Specifications:

Names:

Field Name	Type	Length	Description
FName	String	30	First Name (Optional)
LName	String	30	Last Name (Required)
Company	String	30	Company Name (Required)
Visitor	Boolean		1 or 0 to indicate true or false (Optional)
Trace	Boolean		1 or 0 to indicate true or false (Optional)
Notes	String	200	Notes to be stored with Card Holder Record (Optional)

UDF:

Field Name	Type	Length	Description
UdfNum	Integer		The UDF number that this data is assigned to
UdfText	String	50	The string to be assigned to this UdfNum

Images:

Field Name	Type	Length	Description
ImgType	Integer		The number of the badge image type this file is assigned to
FileName	String	50	Path / name of file to import (must be proper format)

Cards: (In general Cards are optional, but if you define a card there are some fields that are required)

Field Name	Type	Length	Description
Code	Double	11	Card number (Must be first field defined)(Required)
PIN	Long	7	PIN number (Optional)
StartDate	Date		Card will be activated mm/dd/yyyy (Required) time = 24:hr
StopDate	Date		Card will be de-activated mm/dd/yyyy (Required) time = 24:hr
CardNum	String	15	Imprinted card number (Optional)
NumUses	Integer	4	Number of card uses allowed. 1-9999 /9999 = unlimited (Required)
GTour	Boolean		Guard Tour card. 1 or 0 to indicate true or false (Optional)
APB	Boolean		Override AntiPassBack 1 or 0 to indicate true or false (Optional)
Loc	Long		Loc number. (Required)
AddAcl	String	30	exact spelling of the access level being added (Required)
AddTempAcl	String	30	exact spelling of the temporary access level being added (Optional)
AclStartDate	Date		Date - Temporary Access Level is set to Commence and supersede access level
AclStopDate	Date		Date – Temporary Access Level is set to Relinquish control to access level
OLL	Integer		Output Linking Level number. 0 = none (Optional)
Notes	String	200	Notes to be stored with card data (Optional)

Special Commands:

ReplaceCode
This field definition will be used to replace the code number of an existing card.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be replaced – if not defined it will replace the first card found for this person.
F ReplaceCode ^33445^^^ — 'define the new code
W — 'write the data

Copy2Code
This field definition will be used to copy an existing cards data to a new card.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be copied – if not defined it will copy the first card found for this person.
F Copy2Code ^33445^^^ — 'define the new code
W — 'write the data – Card attributes such as stop date could be defined after the new code is specified.

AddAcl / AddTempAcl
These field definitions will be used to add an access level to an existing card.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be edited
F AddAcl ^Front Door ACL^^^ — 'exact spelling of the access level being added
F AddTempAcl ^Back Door ACL^^^ — 'exact spelling of the temporary access level being added
W — 'write the data

DelAcl DelTempAcl
These field definitions will be used to delete an access level from an existing card.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be edited
F DelAcl ^Front Door ACL^^^ — 'exact spelling of the access level being deleted
F DelTempAcl ^Back Door ACL^^^ — 'exact spelling of the temporary access level to delete
W — 'write the data

ClearAcl ClearTempAcl
These fields will be used to remove all of the access levels and/or temp access levels from an existing card without knowing what they are. Can be immediately followed by the **AddAcl / AddTempAcl** commands.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be edited
F ClearAcl ^^^^ — 'removes all access levels without knowing what they are – requires the four ^^^^
F ClearTempAcl ^^^^ — 'removes all temporary access levels without knowing what they are – requires the four ^^^^
W — 'write the data

CopyPerm2Temp
This command will be used to add the access levels in the permanent list to the temporary list. Resulting in a list that contains everything from the permanent list AND everything that previously existed in the temporary list.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Cards — 'define the table to be edited
F Code ^5457^^^ — 'define the code to be edited
F CopyPerm2Temp ^^^^ — 'copies permanent access levels and adds them to the temporary access level list
W

DC
This field will be used to remove all of the cards assigned to this card holder.
I L1 U3 ^123456789^^^ — 'define the cardholder
T Names — 'establish the name object
DC — 'delete all cards/codes assigned to this card holder.
W — 'write the data

Setting Number of Backup Files

The program can be configured to make automatic backups of the database and/or history from the Comm Server PC. The Comm Server is the only PC in the system that can make automatic backups. The backups can be made to any drive specified.

The Comm Server will make 10 different backup files before overwriting the oldest one. Adjusting an entry in the registry can alter the number of backups made.

1. Run the Regedit.exe program from C:\Winnt.

2. Select HKEY_CURRENT_USER\Software\VB and VBA Program Settings\DSX_Access_Systems\WinDSX\DB

3. Double Click on "BackupRollOver" and change the value to the number of backup files you want to use.

4. It is important that the "AutoBakNum" number is smaller than the BackupRollOver entry. If it is not, double click on "AutoBakNum" and change its value to a number smaller than the BackupRollOver entry.

Warning! Be sure of what you are doing before you make a change and say OK.

Mask Last User Name in Login

The file LogIn.txt will hide the name of the last user in the WinDSX Login screen. This applies to the DataBase Login screen only. Use the Autostart Workstation Program to have only 1 login with the last user name masked.

1. Create a file named LogIn.txt. The file does not contain any data.

2. Place the empty file in the shared database directory. This is the WinDSX directory that is shared by all workstations running WinDSX.

3. Once the LogIn.txt is in the shared directory, the last user name is not displayed on the LogIn screen of all workstations running the WinDSX program sharing the same database.

4. To prevent the Workstation Login screen from displaying the last user name, the system must be configured to Auto-Start the Workstation Program which is set under System/Setup/System Parameters/Yes-No Options.

Password Lockout & Warning

Some government jobs require that a warning message be displayed each time the software is started. Invalid Operator Login attempts are also required to disable the operators password.

If a user tries to login 3 times without the proper password the operators name will be copied into the Notes field and their Name is replaced with the current time and date thus disabling their login.

The administrator will need to copy their name from the notes field and paste it into the name field to re-enable the operator.

To implement this feature copy the Gov.exe program out of the utilities directory of the WinDSX CD and place it in the shared WinDSX directory.

Mapping a Network Drive

The Shared resource or WinDSX folder can be a mapped drive or a Universal Naming Convention or UNC.
A mapped drive looks like this: F:\WinDSX
A UNC looks like this: \\Fileserver\WinDSX
DSX Tech Support does not assist in the mapping of a drive on your network. However here are some instructions that may help.

1. Before mapping a network drive, make sure all PC's to run the program have the WinDSX software loaded on them. Also make sure that the workstation names and numbers found in the DataBase program under System/Setup/System Parameters are unique.
2. Also the names of the PC'S must be known. This can be found by right clicking on the Network Neighborhood Shortcut, and select properties.
3. Start at the Comm Server PC or the PC where the shared database will reside.
4. From the desktop, right click on "My Computer". Go down to "Explore" and left click.
5. Left double click on the drive where the WinDSX software was just installed. Usually the C:\ drive.
6. Right click on the WinDSX folder. Left click on "Sharing". Under the "Sharing" tab select "Shared As". Click on Apply, then Ok. Now the WinDSX folder should have a hand under it. In Windows NT and 2000 the folder is ready for use. In Windows XP you must set the permissions for the users who will access the WinDSX database. Right click on the folder and select "Sharing and Security". Under the Security tab, highlight the group or user name you want to grant permissions to. You can also click the "Add" button to select additional user and groups. In the "Permissions for Users" section put a check in the "Allow" box next to "Full Control". Click on Apply. Then OK.
7. Go to the first Workstation. Right click on "My Computer". Go to "Map Network Drive" and left click. This will bring up a box to select the new drive. Select the drive letter you want the drive to be named (F:\ through Z:\ are usually the drives to choose from).
8. Find the PC name where the WinDSX shared folder is located. In Windows NT, this is located under "Shared Directories". In Windows 2000 and XP, this is located by clicking on the "Browse" button. Double left click on the name of the PC to display the shared network folders on that PC. Select the WinDSX folder and click OK.
9. Go to Database in the WinDSX software. Under "System \Setup\Database Path, change the "Path to Database" to the drive that was just mapped (F:\ through Z:\).
10. Log out of the WinDSX Database and then back in to the WinDSX software. The WinDSX Workstation and Database programs should be recognizing the shared database resource or file server.
11. Repeat steps 7-10 for additional workstations.

Automated Windows Login

Use these instructions in Creating an Automated Windows Login. This is a security risk and should be carefully considered. To have the PC automatically Login to Windows follow these instructions.

Use the registry editor (RegEdit.exe) to modify the registry.

Modify the Subkey:
HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\WindowsNT\CurrentVersion\Winlogon

This Key defines the Windows Logon process. It is here that an automated logon can be created.

1. First, the value entry AutoAdminLogon needs to be enabled by changing the value to 1. If not present add it in by pressing the Insert Key on the Keyboard.

2. Next, the value entry DefaultUserName needs to be changed to the user account that will be used for an automatic logon.

3. And finally, a new value entry needs to be added. Add the value entry DefaultPassword, with a data type of REG_SZ and the password for DefaultUser as the value.

Automated WinDSX Login

WinDSX can be auto-started and automatically logged in. The security risk of doing so should be carefully considered.

DB.exe (DataBase) is the only program that can be auto-logged in. If the purpose of this is to Auto-login Workstation and/or Comm Server then DataBase must be configured to Auto-start Workstation under System/Setup/System Parameters.

DB.exe has the ability to pass an operator and password on the command line. To do this create a shortcut for DB.exe and modify the properties. On the Target line add the text required to pass the operator name and password like the example below.

For example:

    C:\WinDSX\DB.exe -DSXOP master -DSXPW master
The prompts DSXOP and DSXPW must be in all Caps
(Is passing in an operator of master and a password of master)

AclNumbers Program

(For WinDSX 3.6.5 / 4.6.5 and lower)
The AclNumbers program is used to determine the Access Level Number of the Access Level to be assigned with the Bulk Load and Card Entry Defaults. If you are using one of these programs or scripts to enter cards and assign access levels you must first choose the Access Level within the WinDSX DataBase program.

1. Copy the AclNumbers.exe from the WinDSX distribution CD into the **WinDSX** folder where the shared database resides.

2. Choose the Access Level you wish to assign from within the WinDSX database.

3. Double click on the AclNumbers.exe to run the program.

4. Select the Location that you want to choose the Access Level from.

5. Select the Access Level that you want to assign. It is possible to select a single Access Level or a combination of access levels that this particular Access Level is part of. Double click on the level of choice.

6. From the right hand window determine the Access Level number of the Access Level or combination Access Level you want to assign using the Card entry defaults text file or Bulk Load programs.

7. It is required that the access level you select must first be assigned to at least one card. Unless it is assigned to at least one card the AclNumbers program will display no results for the Access Level selected.
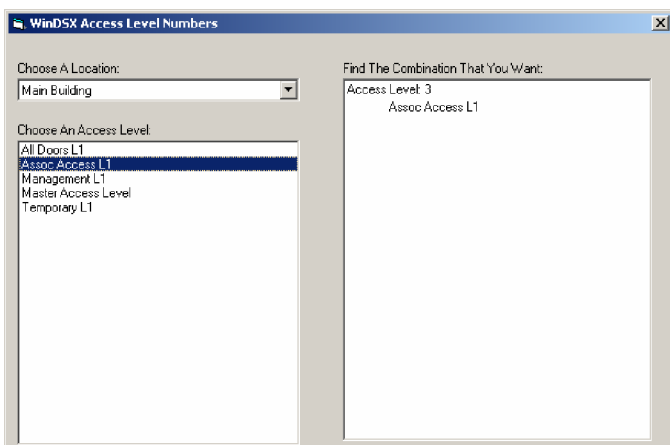
Daily Operations (Ops)

(For WinDSX 3.6.4 / 4.6.4 and higher)
Daily Ops occurs once a day at midnight traditionally from the Communications Server PC. When Daily Ops runs each day several automated processes are initiated. Cards that have pending Start or Stop Dates and Times, and Cards with Temporary Access Levels are evaluated and modified. Cards that are assigned to a Company with a "Use it or Lose it" parameter are evaluated and de-activated if appropriate. Backups of DataBase and/or History are created if the system is configured for automated backups. ASCII Import is another function of Daily Ops that is performed by the Comm Server PC with considerable delays built in to prevent the import from occupying all of the Comm Server's processor time. All of these processes are performed at the Communications Server.

With Version 3.6.4 / 4.6.4 and higher the Daily Ops routine can be assigned to any Workstation instead of the Comm Server which is the default. This can be beneficial, for example, in situations where the automated backups need to be run on a PC other than the Comm Server. Another example would be moving the ASCII Import to an administrative PC that could be dedicated to the import process. This is ideal for sites that want to send large amounts of data through the ASCII Import and want them to be processed quickly. This PC must be left on at all times just like the Comm Server PC as it will now perform all of the automated duties.

To do this only requires a text file named DailyOps.txt that contains the Workstation number of the PC required to run Daily Ops. This will cause that Workstation to check for ASCII Import files constantly and will remove the delays that are normally built into the ASCII Import routines. The PC that will be performing this task should not be used for anything else. The ASCII Import routines will completely consume the CPU but will drastically reduce the amount of time it takes to import large amounts of data. The PC that will run Daily Ops needs to be left on at all times so that the ASCII Import will run as well as automated backups and card evaluations.

1. Create a text file named DailyOps.txt. This file should be placed in the Shared WinDSX directory. The txt file contains the workstation number of the Workstation that should run Daily Ops.

2. Place the DailyOps.txt file in the shared folder and start the database program on the intended Daily Ops PC. Under System/Setup/System Parameters/Communications Server Tab enable the automatic backups if desired and set the target location of the backup files. Restart the WinDSX program.

(The registry setting that controls when daily ops occurs is DailyOpsTime set this in 24 hour format)

Text File Configurations

There are several different text files (*.txt) that enables certain features or provide certain operation parameters. Those text files are described here.

CardDflt.txt
When this file is placed in the local WinDSX folder of any Workstation it provides a template in which all Card Holders added to the system from that Workstation are given predetermined default values. This is very useful in assigning Visitor cards where 95% of the cards are the same. See Page 31 for more information.

DailyOps.txt
Provides the ability to specify which PC will run Daily Ops and do the Ascii Import. This is for sites that want to send large amounts of data through the ASCII Import and want them to be processed ASAP. The file contains the Workstation number that they want to run Daily Ops. This will cause that Workstation to check for ASCII Import files constantly and will remove the delays that are normally built into the ASCII Import routines. The PC that will be performing this task should not be used for anything else. The ASCII Import routines will completely consume the CPU. This same PC will do the daily backups of the database and/or history and all card evaluations. It is responsible for Card Evaluations involved with Start and Stop Date and Times, Temporary Access Levels, Use it or Lose it, and Deactivate Dates set in UDFs. See Page 38 for more information.

InRptByLoc.txt
Allows the system to print the Who Is In report by Location Group or by Location. In the shared folder where the database is located create a text file named InRptByLoc.txt. Within the text file define each Location that should be printed out by Location and not by Location Group. The system defaults to printing the Who Is In report for the entire Location Group. If you have some Locations within the Location Group and you want to print data that only pertains to that Location then enter that Location number in the text file.

Within the text file define each Location that should be printed out by Location and not by Location Group.
Example
1   (prints for Location 1 only)
2   (prints for Location 2 only)
6   (prints for Location 6 only)

Each Location should be defined on a separate line. It is not necessary to put the information in the parenthesis (Location #), this is only shown as a definition of what the line means. If it is desired to include multiple locations of a location group when selecting the report, build the InRptByLoc.txt file in the manner shown in the following example. This would allow for multiple locations to be included in the report but different locations depending on which location was selected for the

report. These examples show locations 1, 2, and 6 as part of the same location group.
Example
1   (prints for Location 1)
0,2,6,   (prints for Location 2 and 6 when 2 is selected)
0,6,1,2, (prints for Location 6, 1, and 2 when 6 is selected)

With Version 3.7.103/4.8.28 and higher you can print to a network printer and specify which printer you want each report to be sent to. Just add the printer name at the end of each location definition line. To define the printer just add a semi-colon (;) then the printer name.

1   (prints for Location 1) to the default printer
0,2,6,;RemotePrinter   (prints report for Location 2 and 6 when 2 is selected) sends report to the printer named RemotePrinter
0,6,1,2,;\\myserver\waybackprinter   (prints report for Location 6, 1, and 2 when 6 is selected) sends report to the printer named \\myserver\waybackprinter

InRpt.txt
This configuration file allows the system to automatically print the Who Is In report when an alarm event is received. At each WorkStation that should print the report create a text file named InRpt.txt. Within the text file define each Input that should trigger the report. The "InRpt.txt" file created and placed in the WinDSX folder on that PC. Within the text file - define each input that should trigger the report as follows: 1:15:5 where 1 is the location, 15 is the device, and 5 is the input that is defined in the database and armed with a Time Zone. Each input should be defined on a separate line where there is more than one input to trigger the report. This report can be used at remote workstation so the report could be generated at that workstation. This file could also be used at the Comm Server PC for a centralized approach.

The InRpt.txt and the InRptByLoc.txt files can be used together- see the example below. Using the entries below in the InRptByLoc.txt file the following would occur.
1
0,2,6,;RemotePrinter
0,6,1,2,;\\myserver\waybackprinter

At Client Workstation 5 there is an input to trigger the Who Is In Report. The InRpt.txt file has 1:2:5 in it. When there is an alarm on 1:2:5 the report prints for Location 1 to the default printer of the Client Workstation 5.

At Client Workstation 6 there is an input to trigger the Who Is In Report. The InRpt.txt file has 2:0:6 in it. When there is an alarm on 2:0:6 the report prints for Location 2 and 6 to the printer named Remote Printer.

At Client Workstation 7 there is an input to trigger the Who Is In Report. The InRpt.txt file has 6:1:5 in it. When there is an alarm on 6:1:5 the report prints for Location 6, 1, and 2 to the printer named \\myserver\waybackprinter

Text File Configurations

LogIn.txt
If the user creates a file called LogIn.txt in the shared database directory then the name of the last user will not be shown in the WinDSX login screen. There does not have to be anything in the file. See Page 36 for more information.

^IMP01.TXT
Card Holder Data and Holidays can be imported into the system through this text file. This file can be placed in the shared database directory. The software either on the Comm Server PC or the PC named in the DailyOps.txt file will look for this file constantly and will automatically import the Card Holder data or Holiday dates into the database and cause an incremental download to be sent to the filed controllers. See Page 32 - 35 for more information.

BarCode.txt
The system auto aligns the bar code to be centered at .45 inches from the edge of the card. Some of the barcode parameters can be altered through the use of a Text file called BarCode.txt. The Auto align feature can also be disabled as well as the Bearer (validation) Bars. The BarCode.txt file is created in the local WinDSX directory of the Badging PC. The following example shows a Barcode.txt file that enables auto align, and disables bearer bars. _=space / 1=on, 0=off - Must be in Capital Letters!
Example
AA_1
BB_0

DelHist.txt
When this file is located in the WinDSX folder of the Comm Server or DailyOps PC, it instructs the system to purge (mark for deletion) any system History and DataLog information that is more than X amount of days old. Create the file on either the Comm Server or DailyOps PC and name it DelHist.txt.

Inside the file place a number larger than 30. This is the number of days of history to keep.

Once the number of days have been exceeded the program will mark those events as deleted. Even numbered days the Log.mdb is pruned. Odd number of days and the DataLog.mdb is pruned. To fully remove those events you must close the program and run Repair and allow it to repair the History.

CardEnable.txt
Added a new feature that will allow a card to be enable or disabled from the image recall window in workstation. When the picture is displayed in response to a card read the operator can double click on the text at the bottom and enable/disable buttons will appear. The operator can click on a button to enable or disable the card that was just read. We are using the Database API to send text files that change the stopdate of the card. The database program must be running on the PC that performs daily ops. This is typically the comm server PC.

Disable will set the stopdate to the present time. Enable defaults to setting the stopdate to the next day. The Enable stopdate setting can be overridden using a text file that defines how many days to enable the card for. The text file info is as follows:

FileName:
CardEnable.txt

File Location:
In the same directory as the DSX software. Each workstation has it's own file.

File Structure:
First line is number of days offset. 9999 = infinite, no stopdate
Second Line is optional Stop Time value to be added to the stopdate. Military time format

Example of enable card for 5 days and turn it off at 1PM on the 5th day.
5
13:00:00

UDS-1100 Configuration

Integrated Biometrics

The UDS-1100 is a LAN to serial communications module made by Lantronix. It can be used in applications where the DSX-LAN module cannot such as Internet communications. Below are some highlights of how to program the module and wire it.

Programming
IP Address - Address of Module
Port - 4000 to 5000
IF Mode = 4C for RS-232 / 4D for RS-485
Flow = 00
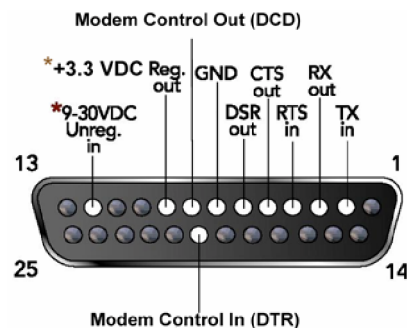Datagram Type 01
Remote IP = Comm Server IP Address
Remote Port = 0000
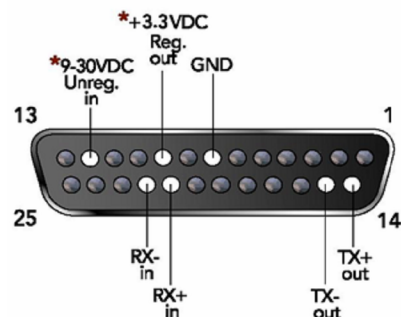Connect Mode = CC

Wiring
TX- RX and RX to TX
+ to +_ and – to – b

Modem Control Out (DCD)
*+3.3 VDC Reg. out GND CTS out RX out
*9-30VDC Unreg. in DSR out RTS in TX in
13 1
25 14
Modem Control In (DTR)

DB25 Female DCE Interface RS232
*Optional power connection

*+3.3VDC Reg. out GND
*9-30VDC Unreg. in
13 1
25 14
RX- in TX+ out
RX+ in TX- out

DB25 Female DCE Interface RS485/422
*Optional power connection

Follow these instructions to configure the WinDSX system for use with Integrated Biometrics.

1. Copy the Biometric Enrollment Button.exe from the \Utilities folder on the software distribution CD and paste it into the WinDSX folder on the PC where the enrollment will occur.

2. Double click on the program and click on "Add Button to DSX". When it is finished click on OK and then Exit.

3. Exit and Restart the WinDSX program.

4. In DataBase under Devices set the Device Type to L5 on all devices that have the Tru650 Biometric Readers connected.

5. In DataBase, edit a card holder and on the General Tab there should now be a Biometric Enrollment Button in the lower right corner.

6. Once the Enrollment Button has been configured, add a Card Holder into the WinDSX software. Add a Card and assign an Access Level. You must add a card number even if there are no cards in the system. This card number is the number that the Integrated Biometrics fingerprint reader will send to the DSX Controller if the presented fingerprint matches the recorded one. If there are cards involved it could be the actual card number.

7. Once all of the Card Holder information has been entered click on the Enrollment Button located on the General Tab of the Card Holder Screen. Clicking on the Enrollment Button calls up the biometric software so that you can enroll the fingerprints for that person. WinDSX passes the user's name and card number so that it does not have to be entered again. Enroll the fingerprints and click OK. This enrolls the users' fingerprints and assigns the unique number the biometric readers send to the DSX controllers. Alternatively, all of the Card Holders and cards could be added into the WinDSX system first performing the biometric enrollment at a later time.

8. When a Card Holder is deleted from the WinDSX database it will also be deleted from the Integrated Biometrics database. If the card number assigned to a person is changed you must either re-enroll that person or go directly into the Integrated Biometrics software and change the card number manually.

AES-256 Encryption

Firmware version 3166 (3174 for FIPS Cards) and WinDSX Versions 3.7.108 / 4.8.65 and higher now support AES, the Advanced Encryption Standard. The official documents can be found at: csrc.nist.gov/publications.   The best info is the official standard document itself: FIPS-197.PDF

1. Once the Encryption feature has been enabled in the USB Features key edit each Location to enter a key for that location. DSX would recommend that they all be different. Edit the location and enter up to 32 keyboard characters in the Encryption Key field. Once entered the key cannot be viewed.

2. Once the keys have been entered into the database Reset the power on all panels in the location. The panels will only move in and out of encryption at power up. The keys are encrypted and sent from the Comm Server to the master controller and from there to all subsequent controllers.

3. Edit System/Setup/System Parameters and select the Comm Server Tab. Here enter an encryption key that will facilitate the encryption between Comm Server and all Workstations. Restart the program on all PCs.

4. The encrypted communications are very secure considering DSX does not download any text to the controllers in the first place. There are no names or titles to anything ever downloaded to controllers. The data that is sent is now encrypted.

5. DSX and the AES-256 will work with all DSX Modems and LAN devices without any updates. The encryption is built into the controllers and software so there are not special modules or adjunct software needed to encrypt communications.

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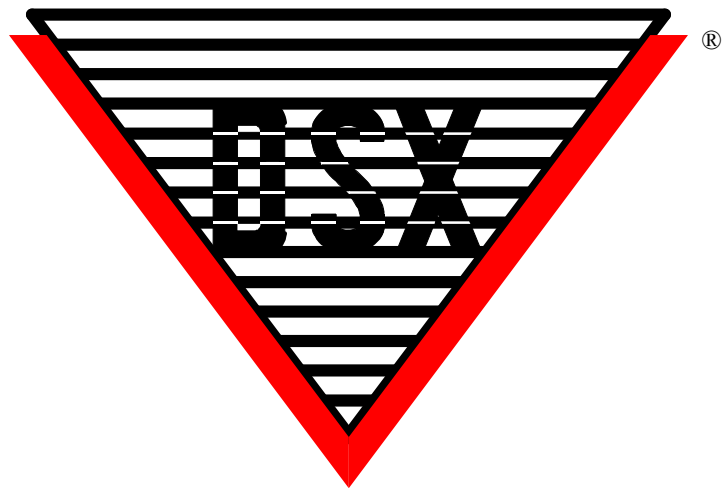
The Security Professionals' First Choice