

**WinDSX Software Installation**

**For Windows 2000 Professional™**

**Configuration and Updates**

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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.

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# WinDSX Software Overview

## General Information

The WinDSX Access Control Software is the latest in 32 bit Windows 2000™ applications. 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.

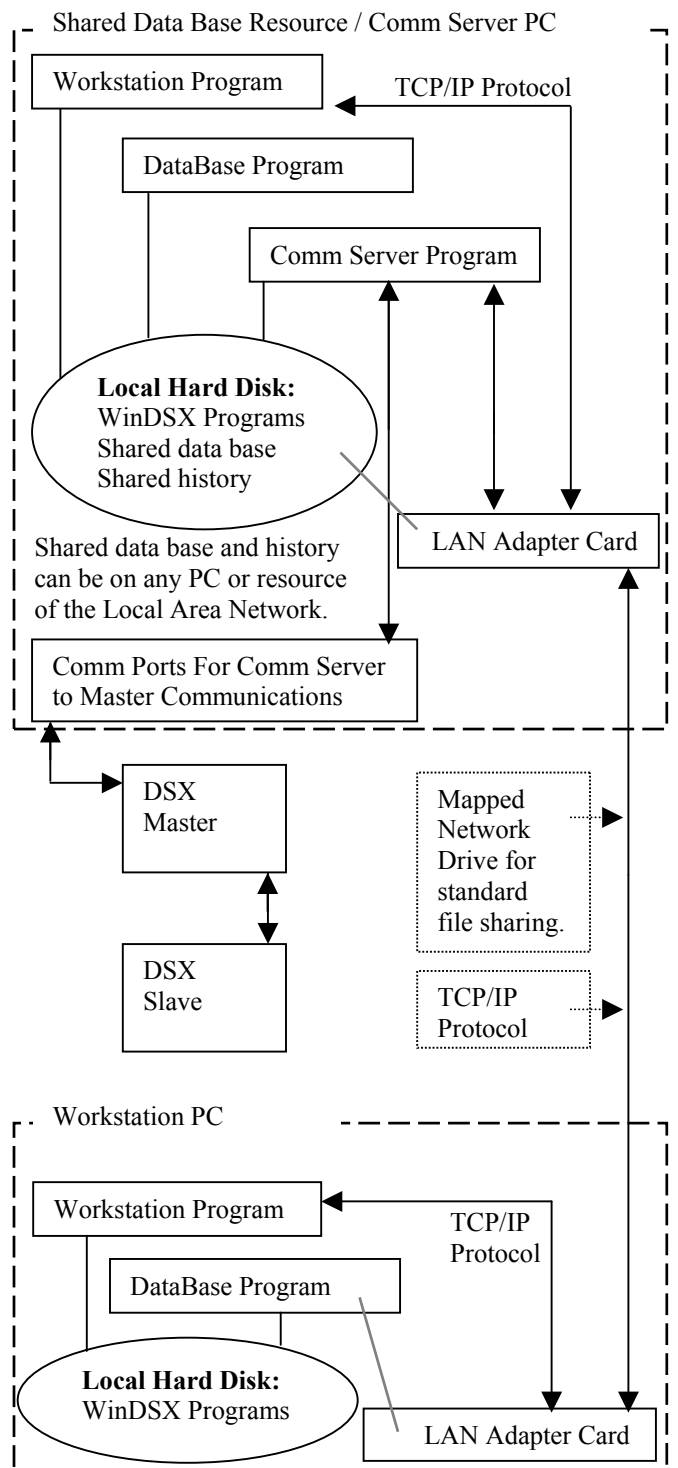
## Communication Server



The Comm Server program is a 32 Bit, multi-tasking, communications application that runs as a Process 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

## System Software Operational Diagram



-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.

## **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 cardholder 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 Cardholder information, Door parameters, Time Zones, Holidays, Cameras, and the powerful Photo ID Badging. History reports which 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

The DSX Windows NT/2000 Software has the following hardware requirements. These specifications are minimum requirements, which can always be exceeded if desired. All PCs used in the WinDSX system must meet these minimum requirements 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, call DSX Technical Support.

## CPU Minimums

**Pentium 266MHz (or better)** - Host PC for single PC, single location system, or LAN workstation for single location system. 128M RAM

-

**Pentium 350MHz (or better)** - LAN Comm Server or File Server for single location system, or workstation for multi-location system. 128M+ RAM

-

**Pentium 450MHz (or better)** - LAN Comm Server and/or combination File Server for multi-location system. 256M+ RAM - minimum

## Operating System

**Windows 2000 Professional™ or Windows 2000 Server™.**  
**Windows NT Workstation™ Version 4.0 and Service Pack 5 or 6a.** Windows NT Service Packs 5 and 6a are included on the WinDSX CD if needed.

## Drives

**One CD-ROM Drive 6x or better** - WinDSX is available on CD only.

-

**One Floppy Drive - 3.5", 1.44M** - History archives and database backups performed in WinDSX will utilize the floppy drive or other specified target.

-

**1Gigabyte Hard Disk or better** - The basic system software when installed is approximately 30M. The actual size required is dependant on the size of the database, the number and size of graphic maps, the number and size of card holder images, and the amount of history to be accrued.

## Memory

**128M of RAM Memory** - Basic System. 128M minimum 256M recommended for multi-Location, multi-PC, Badging, LAN File Servers, and LAN Comm Servers.

## Monitors

**One color monitor SVGA 800 x 600** - The DSX Software is SVGA compatible. The program will not run in monochrome. 800 x 600 or better and small fonts is preferred. 65,000 colors or better if using badging and imaging features. 17" monitor preferred but not required.

## Local Area Network

**LAN Adapter Card 10Mbit or better** LAN card is required for LAN applications only. 100Mbit is optimum. If there is no LAN use the MS-Loopback Adapter (virtual adapter provided on the appropriate Windows™ version distribution CD).

-

**TCP/IP** - This protocol must be loaded even if there is no LAN. This can be loaded with the MS-Loopback Adapter.

-

**Note** /// The Communication Server program (runs on the PC with the connection to the field controllers only) is a socket 80 application that requires a static TCP/IP address.

## Peripherals

**Serial Ports** - At least one serial port is needed for either direct or dial-up modem communications. It may be necessary to use a Windows 2000™, or Windows NT™ compatible multi port board when more than two serial ports are required.

-

**Mouse** - Mouse and keyboard are required. Microsoft IntelliMouse® or equivalent recommended but not required.

-

**Modem** - DSX provided External modem only.

## Audible Device

**Sound Card** - Windows 2000™, Windows NT™, and Sound Blaster compatible PCI Bus sound card. WinDSX supports WAV files that are played back upon alarm.

## Back-up Device

**Back-up Drive** - Windows 2000™, Windows NT™ compatible device that is recognized as a logical drive by Windows. Large removable drives such as LS-120™, Zip™, or JAZZ™ are recommended.

# Version 12 Upgrade Information

Follow these instructions for new installations and for updating existing Version 11 Systems to Version 12. PC requirements are detailed in the Version 12 System Software Installation and Programming Manual. Version 12 Software and Firmware is not compatible with Version 11 Software and Firmware in anyway. When ordering new controllers you must specify what version of Firmware is required. If you are using the DSX Badge System, it will also have to be updated to Version 12 compatible Badge Software.

1. For “new installations” read the information and follow the steps necessary on pages 1 - 15 of the Software Installation/Programming Manual. The PC must be configured properly and have at least 580K as the largest executable program size.
  - A. With software version 12.06M and higher Time Zone 1 controls when an output group will respond to a link. To link to controllers with firmware version 538-541, time zone 1 must be set to 0-2400 everyday of the week or for the period desired.
2. For “system updates” from version 11 to version 12 follow the steps outlined on pages 3 - 10 of the Software Installation/Programming Manual and read the additional information provided in A - D below.
  - A. Any “Device” performing normal door control must have a programming change made in the database. In Data Base under Device the field labeled “Link Device to Output 1” must be set to Yes if a valid card read or exit request should activate relay 1 on that Device. Refer to page 23 in the software installation manual for details.
  - B. If the system is using Device Types; CW, D0, CE, or E3 refer to Cardkey readers in the Hardware Installation Manual. The Data 1 and 0 wires must be reversed at the reader port on the panel.
  - C. Check the “Card Reader TZ” and “Keypad TZ” fields under the Device Parameters. If the cursor moves to these fields a time zone must be entered in order for the reader, keypad or both to operate. Most device types now have these fields enabled even if the reader/keypad option is not selected. You must enable the CR TZ (reader time zone) before the panel will read cards.
  - D. Refer to the Hardware Installation Manual for Prom replacement information. Version 9 Software must first be updated to Version 11 software prior to Version 12. Refer to the Software Installation/Programming Manual for more details. If you were using personal information titles (user defined fields) in version 9 software, the titles must be edited and re-entered into version 11.
3. The logical order for performing this Software/Firmware update is as follows;
  - A. Back up the system DataBase before updating.
  - B. Take all PCs out of the DSX software and leave sitting in DOS. Close down workstations first and the communications server last.
  - C. Disconnect the communication line between the PC (comm server) and master controller.
  - D. From a Workstation load the version 12 software on the File Server then the Comm Server and then onto each Workstation. Once the Software has been updated on all PCs, restart the DSX program on the comm server first and the workstations last. All PCs must run the same version of software!
  - E. Once the software has been updated on all PCs disconnect the RS-485 communication line between the Master and the Slave Controllers. Update the firmware in the Master Controller and reconnect the communications line to the PC and allow to fully download. At this point the PC and the Master Controller have been updated and are now operating with Version 12.
  - F. Disconnect the outgoing communications line from the first Slave Controller and update the firmware. Once updated reconnect the incoming communications line between the Master and the first Slave Controller. Continue to follow this method to ensure that each panel is operating until such time its firmware is changed. Then reconnect the updated controller to the previous controllers that have already been updated. The Master will automatically bring the Slave Controllers online and download them. Do not connect the controllers that have the version 11 compatible firmware to the controllers that have been updated to the version 12 firmware.
- E. If you are updating a direct connect Master from Firmware Version 279 or lower to Version 500 and higher it may be necessary to change the baud rate in the Master Panel using KB2C.exe. See the KB2C section of the DSX Hardware Installation Manual.
- F. For the master controller that uses a dial-up modem for communications refer to the Hardware Installation Manual, or the Modem Installation booklet. It may be necessary to check the modem initialization string using KB2C before updating the firmware and set that same initialization string back into the panel after the firmware upgrade. It may also require the Master Panel have its switch number 7 turned off, see the Hardware Installation Manual for controller addressing changes.
- G. If using firmware version 538 or higher, software version 12.06M or higher must also be used. With Firmware version 538 and software version 12.06M Time Zone 1 controls when an output group may be linked to.

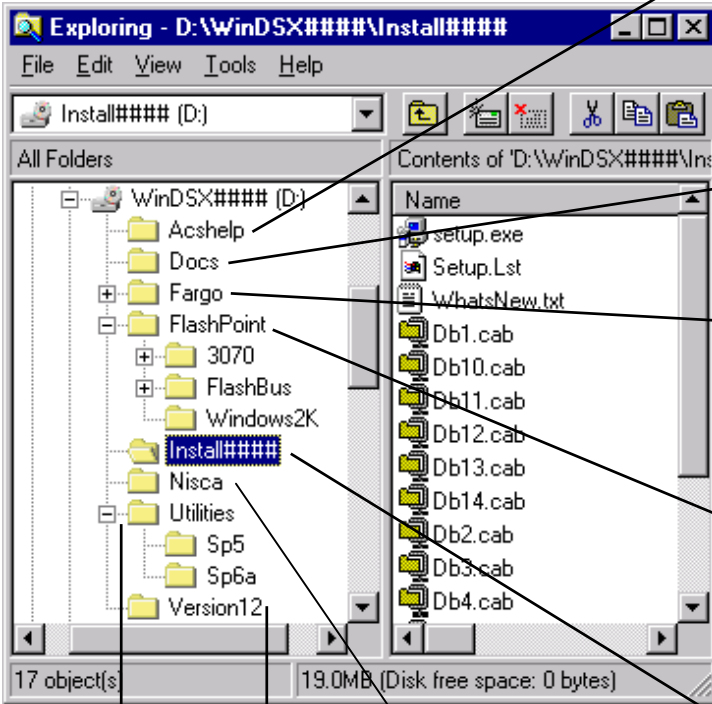
# WinDSX Pre-Upgrade Checklist

WinDSX requires the Windows NT 4.0 operating system with service pack 5 or higher, or Windows 2000 on all PCs used in the system. When ordering new controllers you must specify what version of firmware is required. WinDSX is compatible with version 500 and higher.

1. Software updates must be progressive through each older version to version 12. Version 9 software must first be updated to Version 11 and then to Version 12. Software Version 11.00k and lower must first be updated to Version 11.00u and then to Version 12. Software Version 12.06J and lower should be updated to 12.06M first. Version 11.00u and 12.06M are on the WinDSX CD. Within the 11 and 12 directories of the CD are the necessary four files that are copied to a 3.5" disk in order to create a Software Installation Disk. These progressive updates require the newer software to be loaded on top of the older database files (\*.dbf). Backups from the older version of software cannot be restored into the newer upgrade version of software.
2. **CopyLoc** is the utility that imports the DOS version data to the WinDSX database. This utility imports only version 12 databases into WinDSX. This includes cardholder images but does not include history or maps. CopyLoc is sold separately and you must specify the total number of cardholders in the version 12 database when ordering.
3. If the existing system is running Version 11 Software and utilizes the Time Display Modules for Time and Attendance, each TDM will need a prom replacement. The WinDSX/ Version 12 compatible Time Display language prompts can be ordered at the same time as the panel firmware.
4. In version 9 and 11 software review the memory statistics for the Location controllers to ensure there is enough RAM memory in the controllers for the upgrade. This can be done in the DOS software from the Remote Status Screen (F10). If the Events at Master (Max) is 1500 or less, memory expansion may be required. This can also be determined at the conclusion of a Download when the event capacity of the Master panel is reported and displayed on the Monitor Screen. The RAM should be expanded equally in all Controllers. The event capacity is the number of transactions the Master Panel can store when it is not communicating to the PC.
5. If updating from Version 9 software, the PC to Master communications method must be reviewed and possibly altered to conform to the WinDSX requirements. In WinDSX, direct connected location master controllers must be connected to separate serial ports.
6. Panel to Panel communications must be reviewed prior to updating to WinDSX Software and Firmware. If the existing system contains both revised and non-revised controllers the two must be separated onto different RS-485 communication lines. A DSX-1035 can be added after the Master panel which will provide 4 /RS-485 outputs. The RS-485T can be placed at a non-revised controller to alter its communications to be the same as revised controllers. The DSX-1035 or DSX-485T can be placed after the Master to split or divide the revised and non-revised panels. Revised controllers can be identified by the row of diagnostic LEDs above the communications terminals.
7. 1030 processors - revision 0 - type 1 sold prior to 1991 must be replaced before updating to the 500 series of firmware. Processor with green circuit boards must be replaced.
8. WinDSX Software does not support the "RU" Device Type. Rusco 500 Series readers and the DSX-1038 interface modules must be replaced with the Securakey SK028 Touch Plate Reader. Other Device Type compatibility's that were removed from the Firmware are Falcon, Hirsch, and Dallas Semiconductor.
9. If you are using firmware version 538 or higher you must use WinDSX Version 1.2.3 and higher. Firmware Version 538 and up provides the ability to control the link to each point in an Output Group with a time zone. Software version 1.2.2 and lower does not support this feature and will not allow linking to a controller with firmware version 538 and higher.
10. BCD Keypads are no longer compatible with Version 12, and WinDSX Software and Firmware. The output of these keypads must be converted before they will work properly with the system. The DS-400IB BCD to Wiegand 8 bit module will perform the conversion necessary. One module is required for each keypad. The DS-400IB can be placed at the panel. The BCD wires that attach to inputs 1-4 are reconnected to the module. The output of the module is connected to the reader port.
11. Badge System Printers must be Windows NT, 2000 compatible. The Fargo Persona Printer is not Windows NT, 2000 compatible. All direct card printers currently sold by DSX are Windows NT, 2000 compatible.
12. Multi-port serial communications boards must be Windows NT, 2000 compatible. Arnet Smart-Port Plus boards used with version 11 and 12 software are not Windows NT or Windows 2000 compatible.
13. SMP Controllers require Firmware Version 554.

# WinDSX Distribution CD File / Program Map Example

**Note** /// The WinDSX distribution CD includes Readme.txt files that describe the CDs' contents in greater detail.



**Help** 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 PCs using Windows 95, 98, NT, and 2000. This allows the Help System to be used for training without loading WinDSX.

**Docs** contains the Software Installation Manual and User Guide in PDF format. It also includes the Adobe Acrobat 4.0 Reader for the PDF files.

**Fargo – Direct Card Printers** This folder contains the Windows NT drivers for the direct card printers sold by DSX. The Persona Plus uses the Quattro driver. WinDSX operates with most Windows NT compatible direct card printers.

**FlashPoint** contains the display drivers for the WinDSX video capture cards. Also included is the standard windows display driver for the 3070 model. The FlashBus card does not replace your existing video card.

**Install####** is the directory of the WinDSX software. The 4 # symbols in the name of the install directory represent the version of software. The version is also on a label in side the front cover of the CD case. Open the folder and click on the column sort titled "Type" to cause the Setup.exe program to be displayed at the top of the browser. Double click on Setup.exe to start the WinDSX installation.

Before performing a Software Update be sure to close the program and uninstall it first, using the Add/Remove option under Start / Settings /Control Panel (which leaves the directory and database intact). Use the same software for all new installations and for software updates.

**Nisca – Direct Card Printers** This folder contains the Windows NT and Windows 2000 drivers for the Nisca direct card printers sold by DSX. WinDSX operates with most Windows NT and Windows 2000 compatible direct card printers.

The **Version 12** directories contain the necessary files to create a 12.06m install disk of the DOS software. Open the directory and copy the contents to a blank 3.5" diskette to make a standard install disk. DSX software upgrades must be progressive so these versions may have to be loaded prior to WinDSX. Version 9 must be updated to Version 11 and then to 12 before WinDSX. Version 11 should be updated to 11.00u before to Version 12. Version 12 should be updated to Version 12.06m before using the CopyLoc utility to import the database into WinDSX. CopyLoc is sold separately.

**Utilities** – Sp5 and Sp6a - Windows NT Service Pack updates. Service Pack 5 or 6a is required with the WinDSX software version 2.1 and above. The Service Pack should be loaded after the network adapter card and TCP/IP protocol and before the WinDSX software. It may be necessary to reload the service pack anytime a network adapter card is added to the system.

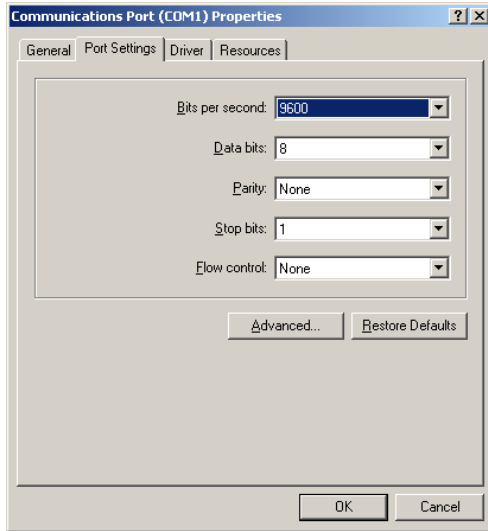
**Bulkload** – is a utility that allows a specified range of cards to be quickly downloaded to the system with a basic access level.

**MemCalc** – is a utility that determines the amount of memory required by the controllers based on the Database entries.

# Windows 2000 Configuration

## Comm Ports

1. Comm Ports are first defined in Windows 2000 by opening “My Computer” on the PC desktop. Then select “Control Panel” followed by “System”. Next, click on Hardware, then Device Manager. Double click on Ports (COM & LPT) to see ports found by Windows. Right click on the port(s) to be used by WinDSX and set parameters as shown below.



2. Some PCs with internal serial ports will let the operating system assign the comm port numbers when the system starts. DSX needs the comm ports to have fixed addresses. Check the CMOS setup of the PC to be sure the serial ports are enabled and defined correctly. Use the following guidelines in setting up the on-board comm ports of the PC.

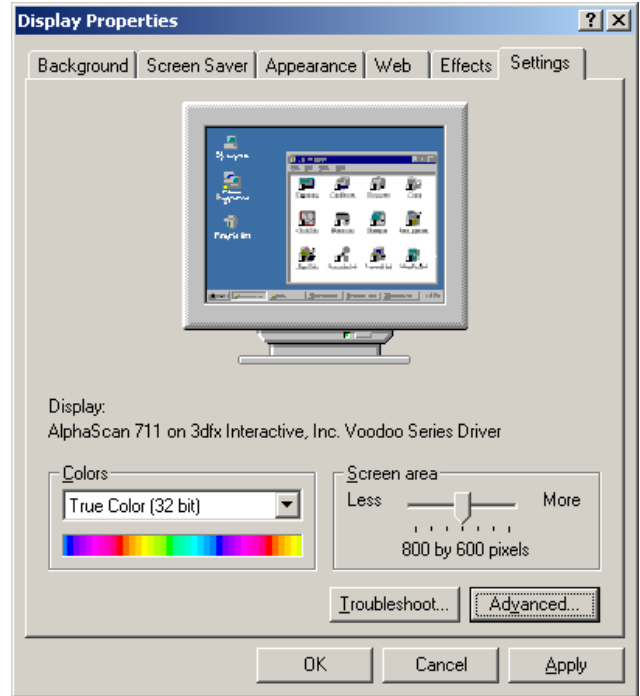
Port Number	Address	IRQ
Comm 1	3F8	4
Comm 2	2F8	3

3. When using DSX modems for dial-up communications do not attempt to install the modem into Windows 2000. Define and configure the serial port in Windows as you would for a direct connect. The WinDSX software handles the communications to and from the modem.

## Display Settings

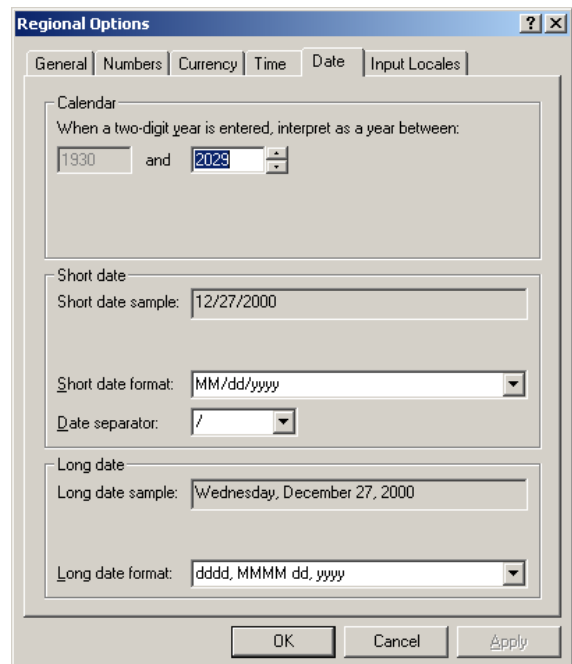
1. The PC Display is defined in Windows 2000 by opening “My Computer” on the PC desktop. Then select “Control Panel” followed by “Display”.
2. Select the “Settings” Tab and set the “Screen Area” to 800X600 or higher.

3. Set the “Colors” to 65536 colors or more for Photo ID Badging, Image Recall, or high-resolution graphic point maps.



## Date/Time Format

1. The PC Date format is set in Windows 2000 by opening “My Computer” on the PC desktop. Then select “Control Panel” followed by “Regional Options”. Set the Short and Long Date format to use a four digit year.
2. The Workstation and Database programs will display time in the 12 or 24 hour format that Windows is configured for under Regional Settings.



# Windows 2000 Configuration

## Local Area Network

A standalone PC running Windows 2000™ will require the installation of Microsoft's Loopback Adapter. Unlike Windows NT™, 2000 does not start the TCP/IP service unless there is a physical connection to a network. By adding the Loopback, we are assured of a consistent link to a valid TCP/IP address.

First, you'll need to setup WinDSX with a TCP/IP address of 192.168.0.48. Go to Database / System / Setup / System Parameters. Double click the Workstation name in the right window. Click on Yes/No Options and put a check in "This PC is Comm Server". Then click on the Communications Server tab and type in 192.168.0.48. Click OK at the bottom, then close the WinDSX software.

## **How to Install the MS-Loopback Adapter**

1. Click on Start/Settings/Control Panel.
2. In Control Panel, click on Add/Remove Hardware. Click Next at the Hardware Wizard Screen.
3. At "Choose a Hardware Task", click on Add/Troubleshoot a Device. Then click Next. Windows will search for new hardware.
4. At the next screen when a device list is shown, scroll to the top of the list and click on Add a new device. Then click Next.
5. At the Find New Hardware screen, select "No, I want to select the Hardware from a list." Then click Next.
6. In the Hardware Type screen, choose Network adapters. Then click Next.
7. At the Select Network Adapter screen, scroll down the Manufacturers until you can select Microsoft. Then select Microsoft Loopback Adapter in the right window. Then click Next.
8. Windows will tell you it is using default settings to do the install. Click on Next.
9. The next screen will complete the wizard. Click on Finish.

## **How to configure the Ms-Loopback Adapter**

1. On the desktop screen, right click on My Network Places, then click on properties.
2. If you will double click this window's title bar, it will jump full screen. Then click on View/Details.
3. Find the Local Area Connection item that references the Loopback adapter in the Device Name column. Right click on it, then click on Properties.
4. If there are no components listed in the center window, proceed to step 5. Otherwise, go to step 7.
5. Click on Install, then choose Protocol. Then click on Add.
6. In the Select Network Protocol screen, choose Internet Protocol (TCP/IP). Then click OK.
7. When Internet Protocol (TCP/IP) appears in the window, highlight it then click on the Properties button.

8. In the properties screen, make sure that "Use the following IP address" is selected. Then type in the TCP/IP address used earlier; 192.168.0.49. A subnet mask of 255.255.255.0 will be inserted for you.
9. Click on OK. Then shut down and restart the PC. The next time WinDSX is run, Workstation should show TCP/IP OK.

**Note**/// These settings are intended for a standalone PC running Windows 2000™.

## **Troubleshooting**

If the Workstation Program continually shows TCP/IP or you are only able to communicate with the Master Controller via KB2CW.exe check the following:

Navigate to Start>Settings>Control Panel>Administrative Tools>Internet Services Manager. Double Click on "Internet Services Manager" in the Tree View on the left to expose the PC Name. With the PC name selected the right List Window displays all Services and the Ports being used by them. All Services with Port 80 must be Stopped by right clicking on the Service and selecting Stop.

# Windows 2000 - Shut Down and Start-Up

Use this procedure to shut down the WinDSX program when it is running on a Local Area Network.

## **PC Shut Down**

1. First exit the WinDSX DataBase and/or Workstation programs on all Workstations.
2. Exit the WinDSX DataBase and/or Workstation programs on the Comm Server.
3. Shut Down the Windows 2000 operating system on all Workstations. Accessing Shutdown from the Start Menu does this. Once you receive the message "It is now safe to turn off your computer", you may then power down the PC.
4. Repeat Step 3 for the Comm Server and then optionally for the File Server. In some situations you may not have access to the File Server.

## **PC & WinDSX Start-Up**

1. The File Server if powered down is the first to be powered up. Once the File Server is completely up the Comm Server is then powered up.
2. Power-up the Workstations that were previously powered down.
3. To Start the WinDSX program. start the DataBase and/or Workstation program on the Comm Server.
4. Start the DataBase and/or Workstation program on all of the Workstations last.

**Note** /// **The default user name and the default password are master - both entered in lower case.**

## Loading WinDSX Software

1. Before Installing the Software you must login as a user with full administrator rights. Make sure that the Temp and TMP settings are pointed to an actual directory. This is found in Control Panel/System/Environment.
2. On a Single PC, load the software according to the instructions below. On a LAN skip to step 4.
3. 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.** Follow the prompts and allow setup to install the software into the C:\WinDSX directory or instruct setup of the desired directory. **Note///** The first time WinDSX 2.1 is loaded the setup program will prompt you to update some system files and then it will be necessary to reboot the PC. After the PC restarts run the Setup program again.
4. If this is to be loaded on more than one PC all Workstations must have a Drive mapped to the location of the shared database resource. The operator doing the software installation needs full administrator rights in their password login for the PC they are working on and the location of the shared database resource.
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 master - both entered in lower case. Creating Shortcuts is on the next page.
7. During the installation if the Setup program states the PC must be rebooted after completion, do so after the software installation by exiting all programs and performing the normal shut down and restart procedure as outlined on the previous page. It is necessary to close all programs before shutting down.
8. If the software is being installed on a non Windows drive see the instructions on the page after next.

## Updating WinDSX Software

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.
2. If this system is using a Dedicated File Server the software must be un-installed and re-installed on the File Server first. If the system is configured to use one of the Workstations as the Shared DataBase resource then this PC should be the first one updated.

### 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 location.
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. Follow the prompts and allow setup to install the software into the C:\WinDSX directory or instruct setup of the desired directory. **Note///** The first time WinDSX 2.1 is loaded the setup program will prompt you to update some system files and then it will be necessary to reboot the PC. After the PC restarts run the Setup program again.
5. When the software is loaded on the File Server, use Explorer to locate and run the DB.EXE program located in the same directory on the server. Once the DB.EXE program is finished updating the database it will leave you on the DataBase Main Menu. Select File then Exit.
6. Repeat steps 3 and 4 above for all Workstations and the Comm Server that runs the WinDSX program.
7. If the software is being installed on a Non-Windows drive see the instructions on the page after next.

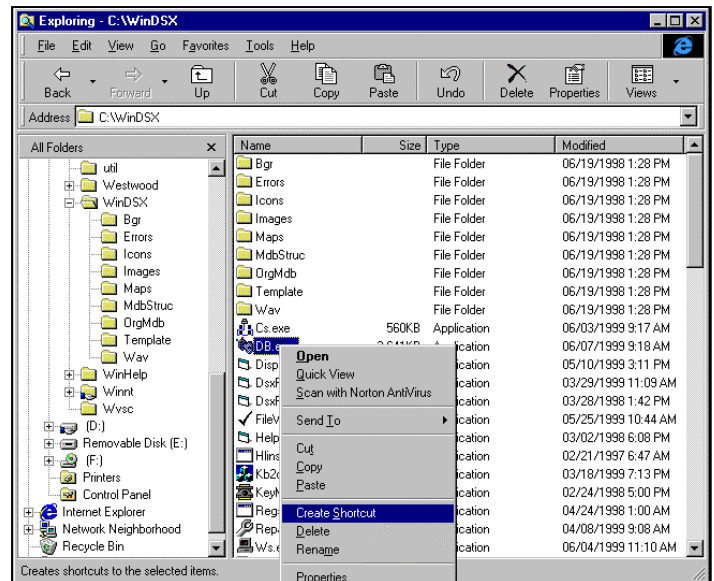
**Note///** Do not use add/remove to install WinDSX software. Always launch setup.exe from the setup directory.

## Creating Shortcuts to Start the Programs

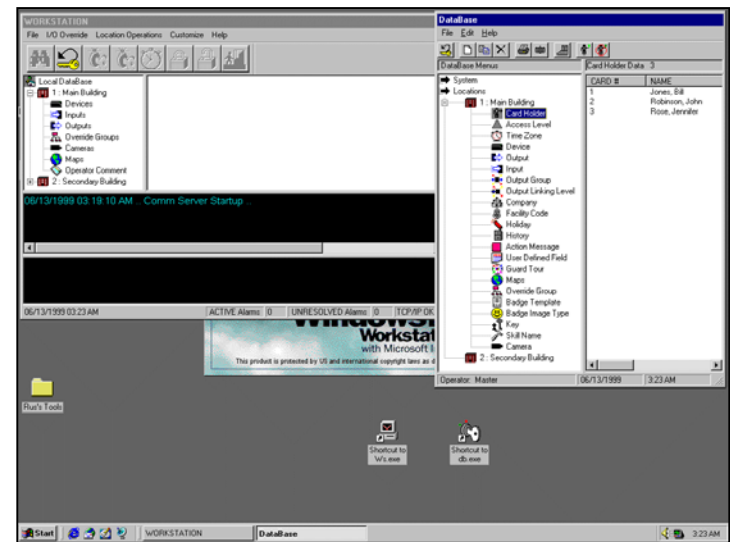
1. After the Software Installation is complete use Windows Explorer to navigate to the WinDSX directory. To find Explorer select “Start” then “Programs” then “Windows Explorer”.
2. Once you are in Explorer navigate to the WinDSX directory. Locate the three executable program files typically used. DB.exe 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 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 NT4 or 2000 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.
2. If you are importing your data from a version 12 system using the CopyLoc.exe program then proceed to the "CopyLoc" section which is next. If you are entering all of the data or starting with one of the templates then skip to "Programming the System" which follows CopyLoc.

## 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.

# CopyLoc Import Utility

The CopyLoc Import Utility is a program that will move the DSX-1030 Version 12 database into the WinDSX Software. If your system is currently running Version 11.00u your software must first be updated to Version 12. If your system is running Version 9 software it must be progressively updated to Version 11.00u and then to Version 12. If the system is running a Version 11.00k or lower, it is first updated to Version 11.00u and then to 12.

For this transition of data from DOS to Windows, the WinDSX software must be installed on the computer first. The Version 12 database (\*.dbf) must be on the same computer or on a resource that is accessible from the PC running the WinDSX software such as a network connection.

The CopyLoc utility can be installed and used only once. The Disk the utility is shipped on has a serial number and the utility is locked. The Disk label shows the serial number and the number of cardholders that the utility is set to import.

The utility cannot be used until you call DSX Technical Support and provide the serial number and a validation number reported to you by the utility program when run. When you call DSX Technical support they will provide the unlock number that you enter into the program so the utility will perform the update. These unlock numbers for CopyLoc can only be given to the Dealer during DSX normal business hours ( 8-5 M-F CST). DSX Technical Support is 1-888-419-8353 then press 2.

1. Before running the CopyLoc program:
  - A) Check the version 12 database to determine how the cardholder names are entered.
  - B) Make sure that all DSX programs are shut down before using CopyLoc.
  - C) DB.exe must be run at least once in the directory containing the target WinDSX database.
2. Copy the contents of the Disk into the WinDSX directory on the PC to run this import utility.
3. Using Windows Explorer double click on the CopyLoc.exe program.
4. Call DSX Technical Support and be ready to provide the DSX Technician the Disk Serial Number and the validation number that is shown on the screen. Also be ready to provide the location of the software installation, address, phone numbers, and contact name. Once all of this information is entered by the DSX Technician, he will be able to provide the unlock number to you.

5. Enter the unlock number without any spaces and press enter.
6. When the CopyLoc screen appears it will instruct you to click on a button to navigate to the Version 12 Software Installation.
7. Once the file navigation screen appears navigate to the drive and directory where the Version 12 database (\*.dbf) is located.
8. Open the Version 12 folder and select the LOC.DBF file and click on Open.
9. The next screen will show all of the Locations that were in the Version 12 Database. If you had only one location defined it will be the only one displayed. If you had multiple locations defined you can select which one you wish to import and you can import all locations listed if desired.
10. Select a location and click on Import. The utility will now give you the opportunity to change the Location number if required. If the Locations were grouped together to share access codes the lowest location number in the group must be imported first.
11. You must specify how the cardholder names were entered into version 12. At the bottom there is a selection to instruct the system on how the names were entered.
12. Repeat this process until all locations desired have been imported.
13. Exit the CopyLoc program and run the DB.EXE program in the WinDSX directory to update the version 12 data to the new WinDSX data structures.
14. If this is not the actual destination or PC that is to contain the database shut the WinDSX program down and copy the data \*.MDB to the drive and WinDSX directory that is to be the shared resource for the system.

**Note** ///CopyLoc does not import history files from the Version 12 DOS system. The Version 12 history can be archived and accessed from a PC running the Version 12 Software.

**Note** ///CopyLoc does not import Version 12 alarm maps, passwords, and password levels. Maps must be imported into WinDSX in one of the 16 compatible file formats. Passwords and password levels must be reconstructed in the WinDSX software.

# 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**, which is predefined data 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. Template 3 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.
- A. 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 have 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.
- B. The **third** required item in Setup is Comm Ports, which are defined on the Comm Server only.
- C. Once the setup portion is complete select Location from the Main DataBase Menu. Then click 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".
- D. 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.

- E. 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". Restart the System by clicking on the DB.exe shortcut located on the desktop. You can toggle between the DataBase program and Workstation program by accessing the Task Bar, which is the location of the Start Button, typically located at the bottom of the screen or pressing and holding the Alt key and pressing the Tab key.

## 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, and at least one Access Level.
4. The Access Level specified for the bulk load cards must be one of the existing access levels.
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 all of the Location numbers separated by commas that are part of the Location Group that you wish to have cards.
8. Enter the number of Codes to be added.
9. Enter the Code number to start from.
10. Enter a pre-existing Access Level to be assigned all bulk load cards.
11. Enter an optional pre-existing Linking Level for code to output linking.
12. Click on the Load Codes button.
13. When finished select File the Exit to close the Bulk Load program. Start the DataBase 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.

**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.

**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 cardholders 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.

# Location Menu

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

Locations is where each site (Master and Slaves) are 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.

## Output Group

Output Group is where the system inputs and outputs can be placed in a group and given a response. When an Input, Output, or Access Code initiate a link to an output group, the defined inputs and outputs will follow their pre-programmed response that is set in the group.

## Output Linking Levels

Output Linking Levels are the means in which Access Codes link to output groups based on which reader the code was used.

## Company 9

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

## Facility Code 10

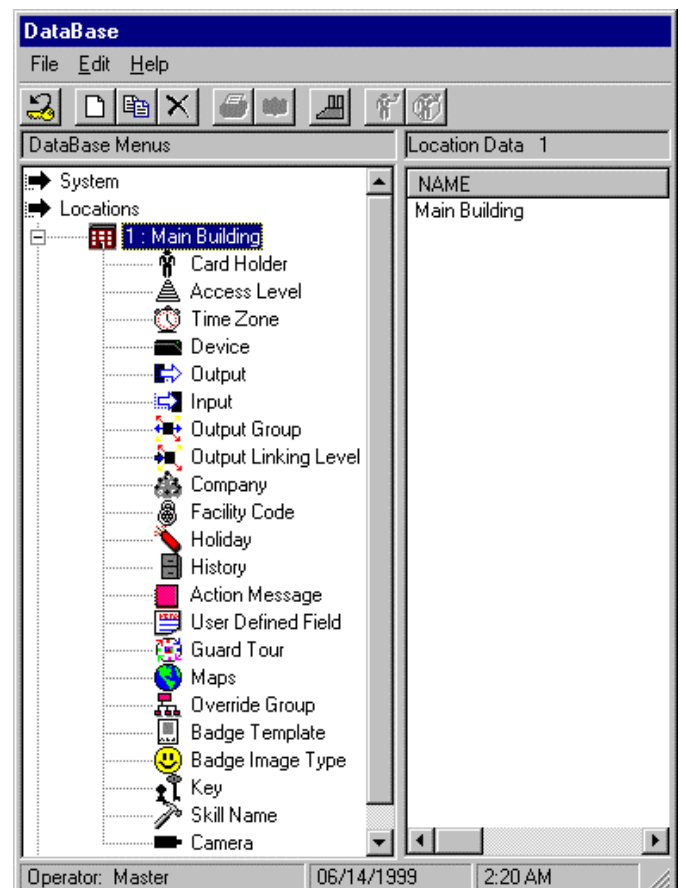
Facility Code is the manufacture's batch number for the cards being used. DSX allows for multiple facility codes.

## 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 cardholder. 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

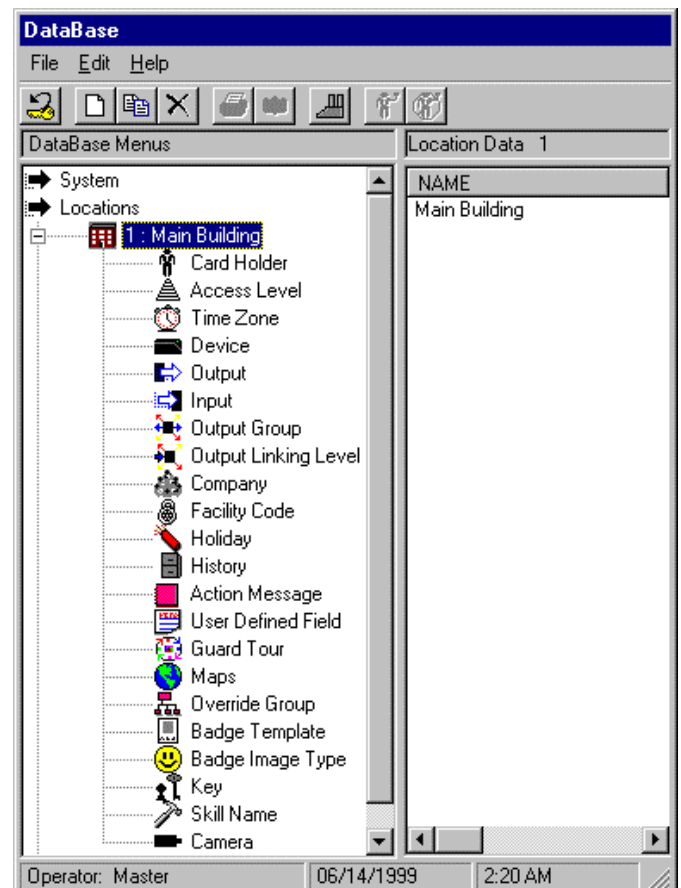
Skills can now be defined and assigned to card holders. Skills can be "Electrician", "Brick Layer" etc..

### 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.



## IP Comm Port /KB2CW.exe

### To configure a PC as an IPComm Port Gateway

It is possible to use a Windows NT or 2000 workstation as a Communications Gateway to a DSX Master Controller. The Comm Server PC would channel all communications to this remote workstation which then routes the TCP/IP communications through its serial port to a Master Controller. This way the remote Location Master Controller can communicate to the Comm Server PC using the Local or Wide Area Network.

KB2CW.exe is a standalone application that does not require the WinDSX software installation. The PC must meet the standard WinDSX hardware requirements and specifications.

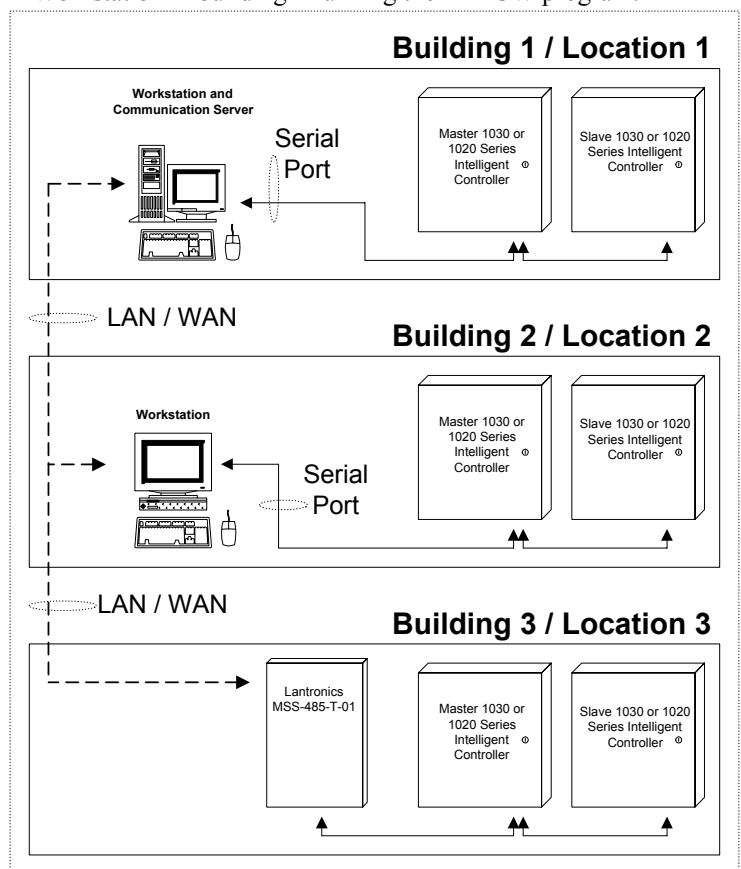
1. The Windows NT or 2000 Workstation that is to be the IP Comm Port Gateway must have a static TCP/IP address.
2. KB2CW.exe can be loaded in one of two ways. A.) Load the WinDSX software on this PC according to the instructions in this manual. B.) Create a WinDSX folder on this PC and copy the KB2CW.exe file into the folder from a Workstation with WinDSX software installed.
3. Connect the Master Controller to the serial port of this TCP Gateway Workstation according to the hardware installation manual.
4. Using Windows Explorer find and open the WinDSX directory.
5. Locate and double click on the file KB2CW.EXE.
6. Click on the Comm Port menu item and define the serial port the Master Controller is connected to on this PC.
7. Once KB2CW displays the port information press "Enter" 5 times. Once the DSX> prompt is displayed type "V" and then press "Enter". This will cause the panel to display its dip-switch settings, Location address and Firmware Version and more.
8. Once it is confirmed that there are proper communications to the Master Controller and it is addressed as the correct Location number select IP Comm Port from the menu at the top of the screen.
9. After selecting "IP Comm Port" you are prompted with "Define Server" and enter the comm port information to match what was previously used to test the panel communications under the Comm Port menu selection. After clicking OK the next prompt is "Define Server Port" which is 4000 and up. This IP Port # must also be programmed in the IP Port # field of the LAN/Comm port definition at the Comm Server PC.
10. Next select "Options" from the menu and de-select the "Show Transmit and Receive Communications" options. These options should only be used for troubleshooting.
11. On the Comm Server Workstation a Communications Port must be defined to communicate with the IP Comm Port Gateway PC. This can be a virtual port and does not have to physically exist or be defined in Windows.

12. Define the port with the normal defaults with the exception of the Port Type which will be set for a LAN-TCP/IP port. In the TCP/IP field enter the TCP/IP address of the remote IP Comm Port Gateway PC.
13. Set the Poll Frequency to 150 and set the Message Timeout to 5000. Click OK to Save the Comm Port settings.
14. Make sure the Location is programmed under Location/Numeric Options as Connect Type "Direct Connect".
15. Exit the Workstation program on the Comm Server and restart it so it will acknowledge the new port settings.
16. At the IP Comm Port Gateway PC using Windows Explorer create a shortcut from the KB2CW.exe program file.
17. Put the KB2CW shortcut in the Windows startup if it is desired to run this program automatically when the PC is started.
18. To run the KB2CW program in a hidden mode so that it does not appear on the Windows Task Bar modify the shortcut so that the target is :  
C:\WinDSX\KB2CW.exe - invisible

Below is a diagram of a typical system using a direct serial port connection from the Comm Server PC to a Master Controller in the same building.

The Master Controller in building 2 is connected to a serial port on a workstation in that same building running the KB2CW.exe program.

The Master Controller in building three is connected to a serial server device that performs the same function as the Workstation in building 2 running the KB2CW program.



# Image Key Installation

These instructions are intended to assist in the installation of the WinDSX Image Key. The WinDSX Image Key is the device that allows for a live video camera to be used with the WinDSX software. Without the Image Key Card Holder images can only be imported from a file. With the Key attached to the PC's Printer Port the WinDSX Camera Kit can be used or other MCI or TWAIN video device can be used to capture live images.

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. When installing the Image Key you must be sure and connect it to the printer port (not the serial port). The printer port is the DB25 female on the back of the computer. The screws on the software lock should have the slotted ends away from the computer and the threaded ends toward the computer.
2. The printer port in the CMOS Setup of the PC should be configured as SPP, Standard or Compatible NOT ECP or EPP. Now that the Image Key is attached to the PC we can install the Image Key program and test the software lock installation.
3. Locate the file hlinst.exe in the WinDSX Folder. Double click on the name to begin the install. Click Next, then Finish on the Wizard pop up screens. The system will return a message indicating the installation is successful.
4. If WinDSX is being run on a LAN run the KeyMon.EXE program in the shared directory or resource. If this is a single PC system run the KeyMon.EXE program from the local drive.
5. After navigating to the appropriate place to start the KeyMon program type or double click on "KeyMon.exe" and press Enter. Once the Image Key is found the KeyMon program will display a screen like the one shown next. To Close KeyMon click once on the small X in the top right corner of the status screen.
6. The KeyMon program must be started each time Windows NT or 2000 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 2000 Desktop before the WinDSX program is started. KeyMon can also be placed in the Windows "Startup" if desired.
7. You can now run the WinDSX DataBase program and make the following modifications to enable live video capture.



8. 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.
9. 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 cardholder. 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.
10. 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.

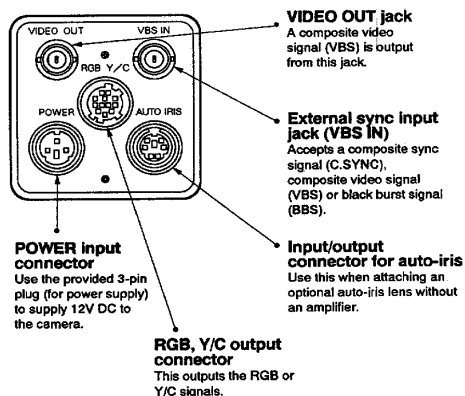
# Capture Card Installation

These instructions are intended to assist in the Installation of the WinDSX video capture card. These instructions take into consideration that the person performing the installation is a certified PC Technician and is qualified to make hardware and operating system changes and modifications. If you do not possess these skills do not attempt this procedure.

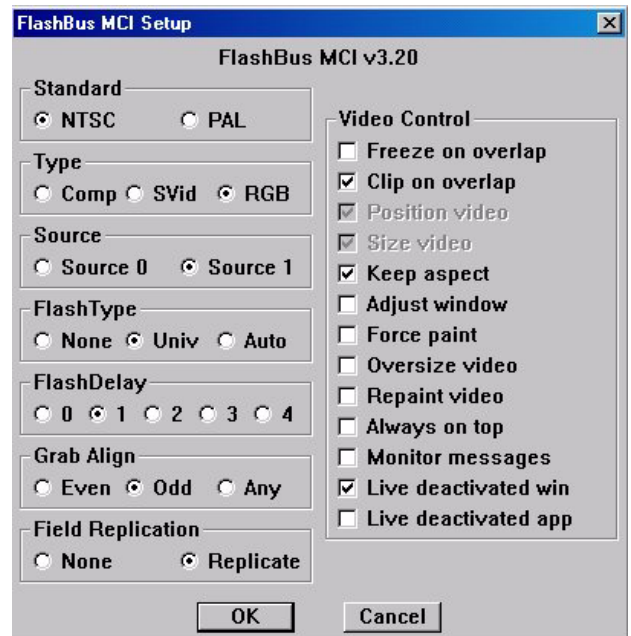
These instructions are intended as an addendum to the WinDSX installation instructions. If you have not already installed the WinDSX Software on the PC that you will use for the image capture please do so now.

1. Follow the proper Windows shut down procedure and Power down the computer that you will use for the image capture.
2. Install the Flash Bus card in the computer.
3. The video cable supplied with the Camera Kit attaches to the DB-25 female connector on the video capture board. Be sure to not connect this to the printer port, which is also a DB-25 female connector.
4. Connect the other end of this custom camera cable to the back of the camera as follows.
  - A. The three pin DIN connect to the Power connector.
  - B. The twelve pin DIN connects to the RGB connector. (Badging applications)
  - C. The BNC connector connects to the video out connector only when composite video is used in place of RGB. (CCTV applications)
  - D. The rectangular power connector from the flash power supply plugs in to the side of the flash. (Badging applications)
  - E. The small round connector plugs into the flash above the rectangular power connector or onto the pigtail from the boot the flash mounts to. (Badging applications)
  - F. Auto IRIS and VBS In are un-terminated.

## Input/output connectors



5. Power up the PC and run the setup program on the first Flash Bus diskette and accept all the defaults for this software.
6. Select "Start" then "Settings" then "Control Panel" then select the following items in the order listed below.
  - > Sounds and Multimedia
  - > Hardware
  - > Media Control Devices
  - > Properties
  - > (MCI) FlashBus MV MCI Driver (NT)
  - > Settings
7. Make the adjustment on your setup screen to match this example below and click on "OK".



## Important Note – For CCTV Camera Control

When setting up the Capture Card for CCTV also select the above options. "Force paint" and "Live deactivated app".

8. Using Windows Explorer™, find the directory FlashBus/FBG and double click on the file FBG32.EXE. Select Setup Video and click on RGB and then on OK. Select Setup Grab and click on Univ and then on OK. Select File and save the new settings. Close the Flash Bus FBG32.exe program. (Badging applications)
9. Once the Capture Card is installed it is time to install the Image Key. Follow the WinDSX Image Key Installation instructions to properly install the Image Key prior to running the WinDSX DataBase program. (Badging applications)

## Camera Flash Timing

These instructions are to assist in the adjustment of the flash timing for the capture card and camera.

1. Run the FlashBus software FBG32.exe.
2. Under Grab on the file menu bar there is a line and flash delay setting. Set the flash delay to 4 and the line to 0. These settings are a starting point and may vary by current environment.
3. Once you have found a suitable setting write the numbers down.
4. To enter these settings into the WinDSX software you must convert the decimal numbers into binary. For example:  
4 = 00000100  
0 = 00000000
5. The line value and the flash delay are joined (And) together with the line value first. This would be:  
0000000000000100
6. Convert this binary number to decimal and enter it into the flash delay line of the capture card commands found under image source in the setup portion of the WinDSX software. This would be 4 for our example.

## External Camera Installation

The external camera needs to have a Composite Video output. This output will be hooked to the BNC connector of the video cable on the back of the DSX Badge computer.

To Configure the Software for this new camera. Logon to the DataBase Program as Master or an equivalent.

1. Select System and double click.
2. Select Setup and double click
3. Select Image Source
4. Double Click on the capture card on the right
5. Select the Commands Tab

This form is where all the specific commands for this particular capture card are stored.

We are going to add four more lines in order to make the video buttons look at the BNC Source and then back at the RGB for the Hitachi camera.

### **Add these lines to the bottom of this list.**

To make button 1 look at the BNC connector of the video cable.

(The External Camera)

Button 1	Set BdgVideo Type 0
Button 1	Set BdgVideo Source 1

To make button 2 look at the RGB connector of the video cable.

(The Hitachi Camera)

Button 2	Set BdgVideo Type 2
Button 2	Set BdgVideo Source 0

These are the possible choices for type and source.

### **Test Type**

0 = Composite Video  
1 = S-video  
2 = RGB

### **Test Source**

0 = RGB  
1 = Composite/S-Video

# Camera Adjustments

## Hitachi VK-C370 and Flashbus MV Pro DSX Setup Procedures

All CamKits are setup and tested by DSX technicians before they are ever sent to a customer. In most instances, the camera will provide the customer with a quality image straight out of the box, with little or no adjustments necessary.

Factors such as the amount of light in the room and the size of the room can affect the quality of the image. Windows that allow outside light into the picture can greatly affect image quality. The image may be affected by the outside light sources placing too much light on the target at one moment or insufficient light at another moment.

Since the badging environment at the customer site may vary greatly from the badging environment at DSX, the customer may experience poor image quality on initial setup. To adjust the camera to the environment, DSX uses the following setup procedures.

1. Select "Start", then "Programs", then "FlashbusMV", then "FBG32". This will launch the Flashbus live video window.
2. Under Setup, select "Video" and set the "Standard" setting to "NTSC" and the "Input" setting to "RGB". Click OK. Under Setup, select "Grab" and set the "Field Delay" to "4", the "Line" to "0", and set "Type" to "Universal". Click Ok. Under File, select "Save Settings".
3. Setup the camera and flash unit. Set the Auto Thyristor on the front of the flash so that the "yellow" setting appears in the window on the side of the Auto Thyristor. The various settings on the Auto Thyristor determine the light output of the flash. The "yellow" setting provides the least amount of flash while the "M" or "Manual" setting will provide the most light output. There are four dip switches on the side of the camera. Set the top switch to the left, and the bottom three switches to the right. Adjust the lens zoom, focus, and iris rings to achieve a quality image.
4. Adjust the white balance of the camera. Focus the camera on something white (the DSX Tech-Binder works great) and press and hold the "Set" button on the side of the camera. You will notice that the color of the image will change. When a good color is achieved, release the "Set" button.
5. Select "Grab" to take a picture. If the image appears dark or washed out, adjust the iris ring on the camera and repeat step 4. The Auto Thyristor setting may also need to be adjusted if more light is desired to help soften shadows or to add more light to the captured image.

6. Repeat as necessary until a quality image is achieved. Run the WinDSX Database program, and capture an image from the Cardholder screen. Some minor iris ring adjustments may need to be made to the lens to achieve optimum image quality.

# CCTV Camera Control

## Overview

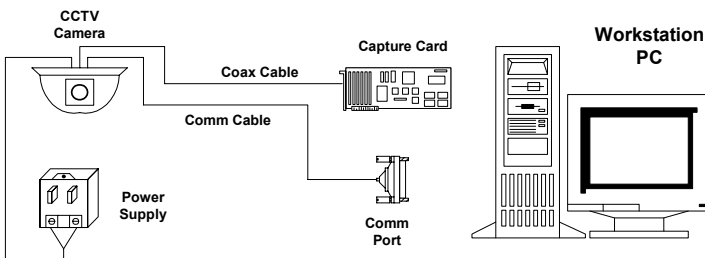
WinDSX CCTV Camera Control provides an interface from a CCTV matrix type switcher to a PC running WinDSX. From the WinDSX workstation multiple cameras can be defined, viewed, and controlled. Video is transmitted from the matrix unit to the capture card installed in this PC and is not transmitted over the LAN.

WinDSX allows the operator to select a camera from a list or from a map and view the real time video from the selected camera and control that camera directly from the WinDSX software. Control includes Pan, Tilt, Zoom, Scan, and two programmable Functions. The system can be interfaced to any CCTV switcher that accepts RS-232 ASCII commands.

Camera Control can be used in conjunction with Image Recall. The card holder presents their card at the reader which does not unlock the door but instead invokes Image Recall at the PC which displays their stored image on screen. The Operator then looks at the live video from that doors camera and determines if the stored image and the live video are of the same person. If so the operator can then unlock the door.

## Requirements

The PC or Workstation that is to have this Camera control interface is where the Communications Serial Port and the Cameras are defined. This same PC must have the DSX Video Capture Card and Cable and at least 1 Serial Port for connection to the Camera matrix switcher.



## Setup

### • Video Connections

The DSX Capture card is installed in the PC according to the instructions on Page 19. The 25 pin connector of the DSX Video Cable is connected to the 25 pin connector on the video capture card. The bnc or video connector on the other end of the DSX video cable is connected to video output of the switcher.

### • Camera Name and Numbering

The cameras are defined in WinDSX with both a 30 character name and up to a 4 digit number. This number typically matches the camera number on the matrix switcher.

### • Camera Comm Port

Enter the number of the comm port that is connected to the switcher. This comm port must be defined on the Workstation PC where the Cameras will be viewed and controlled. The serial port connection for control and the video connection for the live video are local to this PC. The Comm port is defined on the PC with this connection. The port characteristics are set to match that of the video equipment. The port is defined as a port on a Workstation or on the Comm Server PC.

### • Camera Icon and List Order

Select an Icon that you wish to represent this camera in the Workstation program of WinDSX software. The List Order describes how the camera Icons are displayed in the Workstation program.

### • Camera Control Output

This is the Output that can be controlled from the Camera control screen. This can be an output that controls a lock or gate in view of the camera. This allows the operator to view the live video from that camera and easily unlock the door. This can be used in conjunction with Image Recall so that the card holder presents their card which invokes Image Recall and their stored image is displayed on screen. The Operator then looks at the live video and determines if the stored image and the live video are of the same person. If so the operator can then unlock the door from the Camera Control Screen.

### • Programming

The specific RS-232 ascii commands used to control the camera are found in the Camera and Switcher Documentation supplied by the manufacture.

- A. Each Camera and its distinctive control commands must be defined in the system for each workstation.
- B. Control Characters can be inserted into a command string by placing a `\x##` into the string. The `##` should be replaced with the hex value of the character you wish to insert. For example to insert a carriage return at the end of a start and stop command string you would program: start = `50La\x0d` or Stop = `~La\x0d`.
- C. A ½ second delay can be interjected between characters in a command with the `\~` string. Anywhere this string is found the system will delay for ½ second before sending the rest of the string.
- D. To send the backslash character simply type in two backslash characters in a row `-\\`.

## Camera Select

This is the Command issued when the camera is selected. The select command will be issued when a camera is selected for control in workstation. This command will typically consist of selecting a monitor and directing a camera to that monitor. An example command would be switch camera three to monitor one. For Pelco CM6700 this would be 1Ma3#a

## Return to Scan

Command to instruct camera to perform a tour, or any command desired.

For Pelco CM6700 this would be 10pa (execute pattern 10 scanning)

## Pan Left and Right

Pan Left is the Command issued to instruct the camera to move Left. Pan Right is the Command issued to instruct the camera to move Right.

Pan Commands:

There are two different ways that these commands can be issued depending on the type of equipment you are communicating with. Some switchers require a start and stop command while others require that a command be repeated to continue the motion. WinDSX will accommodate either style. The command lines are programmed with Start, Stop, and Repeat parameters that will determine how strings are sent to the switcher.

Example Pan Left Command For Pelco CM6700:

Start command = 50La

Stop command = ~La

Repeat Start command = False

When the mouse button is pressed down over Pan Left on the screen 50La will be sent out the serial port one time. When the mouse button is released ~La will be sent out the serial port.

Example Pan Right Command For Pelco CM6700:

Start command = 50Ra

Stop command = ~Ra

Repeat Start command = False

When the mouse button is pressed down over Pan Right on the screen 50Ra will be sent out the serial port one time. When the mouse button is released ~Ra will be sent out the serial port.

Example Pan Left Command For American Dynamics Switcher:

Start command = L

Repeat Start command = True

When the mouse button is pressed down over Pan Left of the screen L will be sent out the serial port 15 times per second until the mouse button is released.

## Tilt Up and Down

Tilt Up is the Command issued to instruct the camera to Tilt Up. Tilt Down is the Command issued to instruct the camera to Tilt Down.

Tilt Commands:

There are two different ways that these commands can be issued depending on the type of equipment you are

communicating with. Some switchers require a start and stop command while others require that a command be repeated to continue the motion. WinDSX will accommodate either style. The command lines are programmed with Start, Stop, and Repeat parameters that will determine how strings are sent to the switcher.

Example Tilt Up Command For Pelco CM6700:

Start command = 50Ua

Stop command = ~Ua

Repeat Start command = False

When the mouse button is pressed down over Tilt Up on the screen 50Ua will be sent out the serial port one time. When the mouse button is released ~Ua will be sent out the serial port.

Example Tilt Down Command For Pelco CM6700:

Start command = 50Da

Stop command = ~Da

Repeat Start command = False

When the mouse button is pressed down over Tilt Down on the screen 50Da will be sent out the serial port one time. When the mouse button is released ~Da will be sent out the serial port.

Example Tilt Up Command For American Dynamics:

Start command = U

Repeat Start command = True

## Zoom In and Out

Zoom In is the Command issued to instruct the camera to telephoto near. Zoom Out is the Command issued to instruct the camera to telephoto far.

Zoom Commands:

There are two different ways that these commands can be issued depending on the type of equipment you are communicating with. Some switchers require a start and stop command while others require that a command be repeated to continue the motion. WinDSX will accommodate either style. The command lines are programmed with Start, Stop, and Repeat parameters that will determine how strings are sent to the switcher.

Example Zoom In Command For Pelco CM6700:

Start command = Ta

Stop command = ~Ta

Repeat Start command = False

When the mouse button is pressed down over Zoom In on the screen Ta will be sent out the serial port one time. When the mouse button is released ~Ta will be sent out the serial port.

Example Zoom Down Command For Pelco CM6700:

Start command = Wa

Stop command = ~Wa

Repeat Start command = False

When the mouse button is pressed down over Tilt Down on the screen Wa will be sent out the serial port one time. When the mouse button is released ~Wa will be sent out the serial port.

## Function 1 and 2

F1 is any command desired. F2 is any command desired.

# 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

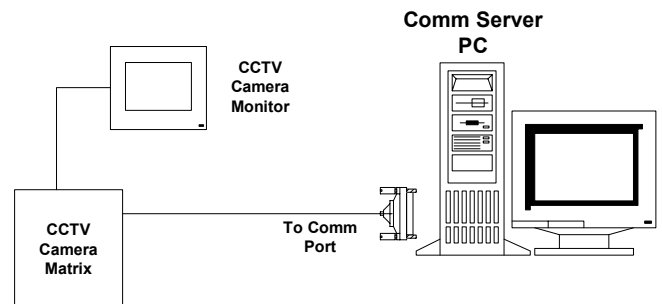
Under System/Setup/Communications Ports set the Comm Port parameters to match the communications port of the device you are connecting and transmitting to for status change.

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.



# Alarm Echo-Offsite Monitoring

## 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 cardholder 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

- Under Setup – Comm Ports, be sure there is a comm port defined as a modem port and a modem is attached for this use.
- Add a Location that will be used as a monitoring location. This location number will be used at the Remote PC site.
- Under Location – General, enter the phone number of the modem at the remote site under Panel Phone #.
- Under Location – Numeric Options, select Connect type as Modem. **Note//** Do not select Auto Poll and Download.
- 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.

## Configuration for Remote Site

- At the Comm Server under Setup – System Parameters – Communication Server, check 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.

The screenshot shows the 'System Parameters' dialog box with the 'Communications Server' tab selected. The 'General' sub-tab is active. The 'TCP/IP Address' is 192.168.0.49. The 'Communications Server Delay' is 15. The 'Enable Alarm Echo To Central Site' checkbox is checked. The 'Alarm Echo Phone #' is 214-555-5499. The 'Alarm Echo Time Zone' is set to 'After Hours Alarm Monitoring'. The 'Backup Database Each Day' and 'Backup History Each Day' checkboxes are unchecked. The 'Backup To This Directory' is set to 'E:\WinDSX'.

- At the Comm Server under Setup – Comm Ports, be sure a comm port is defined as a modem port and a modem is attached for this use.
- 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.

The screenshot shows the 'Y/N Options' dialog box for 'Loc: 1 Main Building'. The 'Connect Type' is set to 'Modem'. The 'Location # To Use For Echoed Alarms' is 138. The '# Of Missed Polls For Alarm' is 3. Other options like 'Auto Poll & Download' and 'After Hours Auto Download' are unchecked.

- Under Location – Y/N Options, select Echo Location Alarms if Location type alarms are to be reported.
- 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.

The screenshot shows the 'Y/N Options' dialog box for 'Loc: 1 Main Building'. The 'Echo Location Alarms To Central Monitoring Site' checkbox is checked. The 'Remote Control Location' checkbox is unchecked. Other options like 'Modem Report on Device Comm Loss' and 'Enable I/O Linking' are checked.

- Under Device – Options, select Echo Device Alarms if Device type alarms are to be reported. Do this for each Device to be reported.
- 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 direct connect systems. Non-invasive diagnostics combined with the Alarm Echo feature, after-hours monitoring and control are powerful new central station features.

## 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 Direct Connect comm port for connection of the Location Master Controller and one Modem comm port with a DSX dial-up modem for the Remote Control feature.
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.

# 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 its 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 1<sup>st</sup> 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.
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))
StopDate ^1^^^ (Stop Date offset is 1 day. (Today plus one day))
GTour ^0^^^ (Guard Tour is false. Set to 1 for true)
Loc ^1^^^ (Establish which location the following ACL and OLL apply to)
Acl ^3^^^ (Location 1 access level is set to 3)
Oll ^2^^^ (Location 1 output linking level is set to 2)
Loc ^2^^^ (Establish which location the following ACL and OLL apply to)
Acl ^1^^^ (Location 2 access level is set to 1)
Oll ^1^^^ (Location 2 output linking level is set to 1)
Apb1 ^I^^^ (Location 2 Zone 1 Anti-passback status is set to In)
```

“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 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.

# ASCII Import Utility

This note describes the method that other programs can use to add, edit, and delete records to the Names, Cards, LocCard, and UDF tables of the WinDSX software.

1. The DB.EXE program on the comm server PC watches for ^IMP##.TXT files by checking the directory where the shared database is located once every 15 seconds. If a ^IMP##.TXT file exist it is executed and then deleted.

2. Command Rules:

- All commands are single character
- Command characters are case insensitive
- Commands must appear as the 1<sup>st</sup> 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.

3. 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 ^dddddd^^ (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 ^dddddd^^ 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 data base.

D Delete Command

Used at the end of table field definitions to delete from the data base.

Example ^IMP##.txt file:

```
I L5 U3 ^123456789^^^ (Associate records with Name in LocGrp 5 with 123456789 in UDF 3)
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 number)
F Visitor ^0^^^ (Visitor is set to False)
F Trace ^1^^^ (Trace is set to True)
F Notes ^These are notes^^^ (String to be stored in the notes field)
W (Write Names data)
T UDF (Following field records are for the UDF table)
F UdfNum ^1^^^ (UdfNum is set to 1)
F UdfText ^Some Text^^^ (Text for UdfNum 1 is "Some Text")
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 ^04/17/1998^^^ (Start Date is set to 04/17/1998)
F StopDate ^12/31/9999^^^ (Start Date is set to 12/31/9999)
F NumUses ^9999^^^ (NumUses is set to 9999)
F Loc ^5^^^ (Loc is set to 5)
F ACL ^12^^^ (Access Level is set to 12 for location 5)
F OLL ^3^^^ (Output Linking Level is set to 3 for location 5)
W (Write Card data)
```

Anytime data is imported through an ASCII file that needs to be downloaded the system will automatically initiate a parameter download to the appropriate locations.

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. Multiple records may be updated in the same file but you should not try to add to a file once it is created.

The ^IMP##.txt files should be placed in the same directory as the shared database.

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.

## Table Structures:

### Names:

Field Name	Type	Length	Description
LName	String	30	Last Name (Required)
FName	String	30	First Name (Optional)
Company	Integer		Company Number (Optional)
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 Name 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 type of image this file is assigned to
FileName	String	50	Path / name of file to import (must be proper format)

### Cards:

Field Name	Type	Length	Description
Code	Double	11	Card number (Must be first field defined)
PIN	Long	7	PIN number
StartDate	Date		Date Card will be activated
StopDate	Date		Date Card will be de-activated
CardNum	String	15	Imprinted card number
GTour	Boolean		Guard Tour card. 1 or 0 to indicate true or false
NumUses	Integer	4	Number of card uses allowed. 9999 = unlimited
Notes	String	200	Notes to be stored with card data
Loc	Long		Loc number for Oll and Acl data.
OLL	Integer		Output Linking Level number. 0 = none
ACL	Integer		Access Level number. 0 = Master Access Level.

Using the Delete command on a card number removes the card records from all locations in the location group. To remove a card from a selected location but retain that card number in other locations in the same location group set Loc to the desired location number and the ACL field to -1 and use the write command.

## 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.

## 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.
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 "Comm Servers" name under "Shared Directories". Left click on the name and the WinDSX file should appear under it. Double left click on the WinDSX file.
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 NT 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 NT 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.

DB.exe has the ability to pass an operator and password on the command line.

For example:

D:\WinDSX\DB.exe -DsxOP Master -DsxPw Test

Is passing in an operator of Master and a password of Test.

]

## WinDSX Version 3.1. Update

- ▼ Added right alignment option to the badge layout for text and data fields.
- ▼ Changed list in main window of DB so that it will beep and show a record count of "Too Many Records" if there are more than 32,767 records to load into the list. This is the upper limit that the list will handle.
- ▼ Changed the Badge Template size defaults to 2.0097 x 3.19.
- ▼ Changed the history routines to assemble temp history file one day at a time. This will help when the user wants to run a report across several days that all have a lot of events.
- ▼ Changed the default IP address of the comm server table to 127.0.0.1 This is an address that always points to the local PC. This will simplify installs on single PC systems as they will not be required to establish a static IP address and then enter that address into the WinDSX software. The WinDSX software will automatically look for the comm server on the local PC.
- ▼ Added the In/Out screen to the Work Station program. This window will show a list of people and display their current in/Out status. It is updated once a minute or anytime the user clicks on a person that person's data is updated. The user can request the entire list be re-built by double clicking on any person. Right click on a person to see UDF data.
- ▼ Changed the allowable number of comm ports to 999 from 99.
- ▼ Added the Company name to the end of the Card Holder name on History reports.
- ▼ Added a new option for hiding the characters in the PIN field like it was a password. Make a new field in the registry called HidePIN and set its value to an asterisk. The new field will be under  
Hkey\_Current\_User/Software/VB and VBA Program Settings/DSX\_Access\_Systems\WinDSX\DB
- ▼ Scheduled Overrides are now setup to be removed 30 days after the Stop Date of the Override. This feature provides a method of verification of proper Scheduled Override configuration after the event and comparison to the event in the audit trail.
- ▼ Added Minimize and Maximize buttons for Database and KB2CW to allow more control of the program window.

- ▼ Added the ability for Workstation to display the cardholders name, at an "Access Denied Code" when the cardholders name is known by WinDSX. Previous versions only listed the code number after the Denied code event.
- ▼ System now records the last time that an access level was assigned to a card and will automatically delete any access levels that are not currently assigned to a card and have not been assigned to a card in over 120 days.
- ▼ Changed the way that the history reports select a card holder. Previously the system used the card number as the link between the event and the card holder. This proved to be a problem when a card was removed from the system but the user still wanted to run a report on the card holder. We now record the permanent card holder ID number with all card events and the system uses this as the link between the history log and the card holders.

This will allow the user to search for card holders even after all cards have been deleted from the card holder. However when a card holder is deleted from the system you will not be able to add them back in and perform a history search. In order to search for a person that has been deleted from the system you will use two new fields in the history name select window. These fields are First Name and Last Name sound like. You enter as much data as possible into these fields and the system will find all card holders that meet criteria entered.

This change to the history will mean that the system will not be able to run history reports for specific card holders from event log data that exist prior to this version. The information is still available but you must use the sounds like fields to enter the search criteria.

- ▼ Added a new report to the Names Report screen that will allow the user to list cardholders by selecting an output linking level. The system will print a list of names that are people who have cards that are assigned the selected output linking level. There is a new button on the by access level form that will toggle that form between reporting on a access level or reporting on an output linking level.
- ▼ Implemented a time and attendance report that will provide separate totals for each card even if the cards are assigned to the same person. The time and attendance totals are linked by the card # instead of the person's name. Therefore a single person using multiple cards may have multiple totals in the report.
- ▼ Added fields for the DSX Flash Logon Parameters. These fields allow the operator to define a logon name and password that must be used to enter the DSX Flash program.
- ▼ If data logging is enabled system will now write to the datalog each time a badge is printed. It will save Time/Date, Operator, Card Holder Name, and Badge Name that was printed.

## WinDSX Version 3.0. Update

- ▼ Added a 1/4 second delay between processing records when loading data from an ASCII import text file. This will allow the system some time to catch up when processing a long list of records on slower PC's.
- ▼ Changed the Select Name routine so that when there are multiple locations in the same location group and the user runs a cards not used in X days type of list the system will only display cards that have not been used in any of the locations in the group. Previously it would display a card if it had not been used in a single location within the group.
- ▼ Changed DataBase so that when a list of CardHolders is displayed by card number the delete function is disabled. This was done because users would list by card number and hit the delete button thinking that they were deleting a card when in fact they were deleting the Person.

- ▼ Implemented the new ADO specification from Access 2000 to the structure of the database.
- ▼ Added support for the Integral FlashBus MV Pro capture card that operates with Windows NT4 and 2000. The new capture card and settings provides far superior images than the previous model. The new card no longer replaces the current video card and cannot be used as a video card.
- ▼ Implemented optimized communications methods that boosts throughput of downloads and uploads and provides a higher degree of accuracy to even the largest installations.
- ▼ Added the ability to import graphics files as signatures without applying the cropping to the file when it is displayed and printed. You must define the Badge Image Type with a Name of Signature.
- ▼ System now records the last time that an access level was assigned to a card and will automatically delete any access levels that are not currently assigned to a card and have not been assigned to a card in over 120 days.
- ▼ Added new field to the HistoryName table to save the Show Card Data flag. This selection was previously not saved with a stored report.
- ▼ Changed Database so that it determines the directory specified by the TEMP environment variable and then creates a DsxTmp sub directory to store temporary files used in some reports. This was done to solve a problem that was present when the system was run under CITRIX and multiple sessions were attempting to run reports at the same time. Previously these temp files were stored in the current WinDSX directory. This would result in multiple sessions attempting to create the same file name in the same directory. Now each session will create the files in it's own private temp directory and there will not be any conflicts.

## WinDSX Version 2.1.12 Update

- ▼ Fixed problem that would not allow you to add a new cardholder when the cardholders were listed by card number.
- ▼ Fixed problem with password profile restrictions not being enforced properly on access level restrictions. System would allow a restricted operator to assign access levels that contained doors that should be restricted.

## WinDSX Version 2.1.10 Update

- ▼ Fixed problem with some check box's not being visible in the Names report window.
- ▼ Added more events to the Alarm echo function.
- ▼ Fixed problem with the status bar in WorkStation displaying its default settings whenever the user would reposition the workstation window.

## WinDSX Version 2.1.9 Update

- ▼ Fixed problem with restore of a database not restoring images, backgrounds and icons if the target directory was empty.
- ▼ Fixed problem with icons not being installed on a new install.

## WinDSX Version 2.1.8 Update

- ▼ Changed the Print Map function so that it always selects the report printer to send the print job to. Previously it would send it to the last printer that was used.
- ▼ Changed the Holiday listing so that it only displays the Date instead of the date and time.
- ▼ Changed the Badge print function so that if the number of copies is set to zero there is no printing.
- ▼ Fixed problem that would leave the Allow Duplicate PIN check box enabled when it should be disabled.
- ▼ Fixed problem with the zooming and cropping of a image not functioning.
- ▼ Fixed problem with Door Held Open Alarms not echoing to remote locations.
- ▼ Fixed Problem with LogOff/LogOn in workstation not restoring device status.

## WinDSX Version 2.1.4 Update

- ▼ Added the ability to pass in an operator and password on the command line to DB so that it will auto login.  
For example:  
D:\WinDSX\DB.exe -DsxOP Master -DsxPw Test  
Is passing in an operator of Master and a password of Test.

## WinDSX Version 2.1 Update

### ▼ **New DataBase Engine**

WinDSX Version 2.1 and above have been fitted with the Microsoft™ Access 2000 Jet Engine, and the latest Crystal Reports generator using the most current Software Development tools.

### ▼ **Four Access Levels per card**

Card Holders can have multiple cards. Each card assigned to a card holder can now have up to 4 Access Levels. This can be very useful when managing a large number of access levels and card holders. New Levels can be defined and assigned to new and existing card holders without changing the current access levels.

### ▼ **New TCP/IP Communications to Master Controllers**

WinDSX Version 2.1 and up is now using TCP/IP Datagrams instead of Sessions. Datagrams are a lower level of TCP/IP communications. It is faster, more forgiving and eliminates the overhead that is involved using sessions. If you are not using TCP/IP communications to controllers this change does not affect your installation. If you are utilizing TCP/IP for master controller communications with the use of a Lantronix serial server or other device, or the DSX IP Comm Port program "KB2CW" running on a PC there are several changes to be made.

### ▼ **Change to Workstation Event Filter definitions**

When adding workstation event filters all locations are automatically excluded. The definitions are basically the same except you now select what should be displayed instead of what should be filtered. This is a significant improvement when filters have been defined and new locations are added to the system. The new locations are now automatically excluded and can be selected for display at any workstation required.

## WinDSX Version 2.0.8 Update

- ▽ Changed Password profiles to increase flexibility assigning access levels.

## WinDSX Version 2.0.7 Update

- ▽ Changed DataBase to prevent the printing of text in a very small font on badges.
- ▽ Changed DataBase to correct problem with signature capture not working after a badge was printed.
- ▽ Changed workstation event filters to filter out card reads without having to filter out all events.

## WinDSX Version 2.0.5 Update

- ▽ Changed Database and Workstation to use the time format that is defined in the regional settings to display time.
- ▽ Corrected problem that prevented the system from utilizing the auto backup roll over setting in the registry to control the number of automatic backups made. 10 backups are made by default and can now be limited to 2.
- ▽ Added image file deletion so that the card holder image file is actually deleted from the images subdirectory when the card holder is removed from the system.
- ▽ Compensated for an error message that could display if an access level was edited and all time zones were removed from all devices and then saved.
- ▽ Corrected problem of output icon not changing when previous/next was used in camera to scroll the camera selection.
- ▽ Fixed problem of automatic image recall not occurring on trace card events. A trace event should cause the image to be displayed unless the image recall is disabled under Customize in the Workstation program.

## WinDSX Version 2.0.4 Update

- ▽ Compensated for slow PCs running on LAN that would intermittently not show the Card Holder picture when the Card Holders general tab was accessed.
- ▽ Corrected the backing up and restoring of a single location from a multi-location database.
- ▽ Compensated for operators clicking on the print button while the badge is still being assembled in the badge print preview form.
- ▽ Added recording of invalid login attempts to the history log.
- ▽ Changed Comm Server to no longer send an empty checksum message to the master when they connect. This was causing the controllers to loosing records after a certain sequence of events had taken place. Usually displayed by a card holder being denied access by level when the level was valid at that device.
- ▽ Corrected problem of action messages being displayed on guard tour events that should not display an action message.

## WinDSX Version 2.0.3 Update

- ▽ Changed password profiles to compensate for error appearing when the user would double click on DataBase or Workstation in the Menu Password Profile form before the tree was expanded.
- ▽ Changed Who Is In button in the database toolbar to not be active when the Who Is In report under reports was disabled for the password profile.
- ▽ Changed auto-alignment of bar codes to be .45" from edge of card to center of barcode.
- ▽ Changed pop up menu on CCTV control window to always appear where camera control window is displayed.
- ▽ Added Access Denied Antipassback, Access Denied Code Timer, and Access Granted Passback Violation to the image recall event list.

# WinDSX Version 2.0.0 Update

## Major Enhancements

- ▽ Workstation Event Filtering  
Workstation event filtering will allow the user to define the events/alarms to be displayed at the system workstations. Each workstation can define filters that are controlled by time zone. For example, there are two buildings on the same system with a manned workstation in each. During the day workstation 1 can only see events that occur in building 1, and workstation 2 can only see events that occur in building 2. After hours building 2 is unmanned so all events appear at workstation 1 in building 1. This is accomplished by workstation 1 using two event filters that are applied by time zone.
- ▽ Operator Audit Trail  
When enabled this feature will record all of the changes made to the database. This history will provide the ability to review what was changed, who changed it, when it was changed and what the original data was.
- ▽ TCP/IP Master Panel Communications  
Panel communications that are typically performed through a serial port connection can now be redirected through a LAN/WAN to a TCP/IP address. Either a Lantronix serial server or a PC running the DSX-IP CommPort program receives the communications. For example: a site requires three buildings to be unified with workstations in two of the three buildings. The only means of communicating between buildings is the LAN/WAN. The comm server PC is located in building 1. Building 2 will have control panels and a WinDSX workstation. Building 3 will only have control panels. Building 1 will have a direct serial port connection from the master controller to the comm server. Building 2 will use the DSX-IP CommPort Program running as a background process on the workstation. The master controller for building 2 will connect to a serial port on the workstation. Building 3 will have a Lantronix serial server connected to the LAN and to the master controller for building 3. The comm server will have 2 serial ports defined as "IP" type and will communicate via the LAN to the DSX-IP CommPort program in building 2 and to the Lantronix unit in building 3.
- ▽ CCTV Camera Control  
WinDSX can now provide a live video window along with Pan, Tilt and Zoom control of CCTV cameras on the PC monitor screen as a standard feature. Each workstation can have a serial port and video connection to a CCTV matrix system. Each camera can have a DSX output assigned to it that can be controlled from the live video window. This will provide the ability to visually verify a person from the live video and then release the door from one window. Cameras can be associated with inputs and outputs for easy selection. When this association is made, a camera can be accessed directly through the input and output control screens in the Workstation program. Cameras can also be dropped onto a map in the same manner as inputs and outputs. Simply click on the camera icon from the map, and the live video camera control window will appear.
- ▽ Smart Port – Automation Output  
Provides a high-level interface to Central Station Alarm Automation Software so that input alarms can be handled in the same manner as burglar alarm systems. The smart port provides an RS-232 ASCII interface between WinDSX and the Alarm Automation Software. The Smart ASCII Port transfers alarm data to any automation system in the same way a digital alarm receiver does. Once the alarm data is successfully transferred to the automation system the WinDSX software resolves the alarm locally. If the transfer is not successful the alarm is annunciated locally at the WinDSX workstations.
- ▽ Alarm Echo – Offsite Monitoring  
Alarm Echo allows a central station to provide after hours alarm monitoring of a proprietary system. Customers who want to administer their system locally during the day can now have their alarms monitored offsite during the evening without digital dialers. The WinDSX software will automatically transfer all alarms during a specified period of the day to a WinDSX system in a central station via a dial-up modem. This feature will provide a means of generating re-occurring revenue from a proprietary system.
- ▽ Remote Control / Diagnostics  
Allows a central station operator to call a proprietary site and control inputs, outputs and 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 proprietary WinDSX system to perform Input, Output, and Device Control. Non-invasive diagnostics can also be performed such as panel communication status, RAM/ROM statistics and versions, high and low AC and low battery conditions. This combined with the Alarm Echo feature, after-hours monitoring and control are powerful new central station features.
- ▽ Visitor Management  
The Visitor Management feature allows an operator to be restricted to only working with visitors. It can also restrict the access levels the operator can assign to a visitor. The operator can enter the name of the person the visitor is seeing. The name can be typed in or selected from a list of names. An entry is made into history that record a visitor was added, whom they came to see, what card was assigned and the operator that added the visitor.
- ▽ History – Number of Uses Report  
This History Report displays access granted events from the readers selected and will group the events by company to show a total number of uses per company. The report is useful in systems which bills a company or tenant each

time a card is used at certain readers, such as after hours HVAC or Recreation/Club use.

- ▽ Re-occurring Holiday Schedules  
Holidays can be set to re-occur each year. This prevents the holiday from being purged from the system once the date has passed.
- ▽ Multiple De-activate Dates for Cards  
User Defined Fields can now be configured as a StopDate for all cards assigned to a card holder. This allows a card holder to have as many dates assigned as necessary to de-activate his cards. Multiple de-activate dates are useful for training certification, inspections, drug testing, etc.
- ▽ Activity / Alarm Printing  
Activity printers can be used at any WinDSX workstation. Each workstation can be defined to print all events or just alarms. The WinDSX workstation uses the default Windows 2000 printer as the alarm or all events printer. The “events to print” is defined for each workstation in the System/Setup/ System Parameters section of the DataBase program.
- ▽ Automatic History Report Generation  
History reports can be named, saved and now scheduled for automatic generation. Each history report can be scheduled to run automatically, up to twice a day on all or selected days of the week.
- ▽ Use Activated Card Disable  
Devices (readers/keypads) can be configured to disable a code when the code is used at that device. Ideal for direct connect systems, a code has its number of uses set to 0 when used at a reader/keypad configured for this option.
- ▽ Encrypted Backups Database and history backups can now be encrypted with a 9 character alphanumeric password which must be used to restore or read the data contained in the backup.
- ▽ Card Holder Management Reports  
New management reports can greatly assist in managing employee/contractor time and attendance activity. The reports include number of people with activity, currently on site – in and outs, activity summary and daily activity.

## **Workstation Enhancements**

- ▽ Modem Call Monitor  
Each modem-connected location can have a time limit set that determines how long a location can stay online before the system generates an “On Line to Long” alarm. This is used in central station systems to provide an indication that a location has been connected too long and should be disconnected.
- ▽ When clicking on a line in the alarm or event window, that line becomes highlighted to indicate which line is selected.
- ▽ Background colors of the Alarm and Event windows in Workstation can now be independently defined for each workstation in System/Setup/System Parameters.
- ▽ Inputs, outputs and maps can now have a display order assigned that will determine the order they are shown in the Workstation status and override screens.
- ▽ The Card Holder Name Search (binoculars) now has expanded search capabilities. When the Name Search screen is active, clicking on the First or Last Name label launches the standard 3-tab search engine found in the DataBase program.
- ▽ The Card Holder Name Search described above will now display the card holders anti-passback status next to the Active/Inactive label. If the card holder’s status is not completely neutral in all anti-passback zones, the status for all four zones is displayed. This allows an operator to easily determine the in/out status of a card holder.
- ▽ Last User Name Mask. By creating a text file named “LogIn.txt” in the shared database directory, the name of the last user is not displayed in the WinDSX login screen.
- ▽ The Display Mode for inputs, outputs, override groups, cameras and maps can now be toggled from the standard Icon View to a List View that displays smaller icons and almost twice the points in the same size window.
- ▽ Added camera menu item to the pop up menu that appears when the user right clicks an input or output. This will allow the user to display the camera that is associated with the selected.
- ▽ Added the camera button to the alarm acknowledgement screen so that the user can click the button to display the real time video from the camera associated with this input.

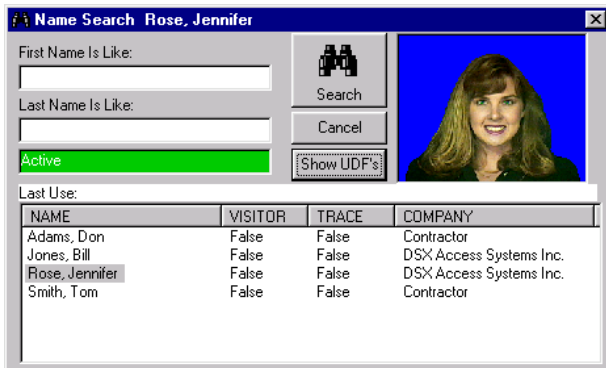
## **DataBase Enhancements**

- ▽ List by Code is now an option under DataBase/Card Holders. When selecting card holders there is a new button that will display the list sorted by code. The list shows card number, name, company, status and access level name. List by card number is also available when doing a card holder search from the standard 3-tab search engine found throughout the database.
- ▽ The DataBase program now has Activate/De-Activate buttons in the tool bar to quickly set the active status of a card holder or group of card holders.
- ▽ Multiple selections for both card activate and de-activate and batch card printing is now an option under the DataBase program File menu. Once Card Holder is selected the Enable Multiple Selection option can be chosen. Operators can then use the Ctrl and Shift Keys in conjunction with the mouse pointer to select multiple choices or a range of card holders followed by the Print Badge, Activate or De-activate Icons in the tool bar.
- ▽ The Card List view that is displayed under a particular card holder now displays card data for each location in the location group.
- ▽ Automatically define Output 1 (reader control output relay) and Input 7 (door position switch) each time a device (reader) is added to the system in the database program.
- ▽ Time Zones can now be copied and pasted from one device to another when creating access levels. This makes it easy to assign from 1 to 4 time zones for each device that should have the same time zones.
- ▽ Enhanced ASCII File Import Utility to import card holder images as well as card holder data. The image being imported must match the image file type specified in Setup/Image Source.
- ▽ Card Holder Report can now be sorted by User Defined Field as well as by Name, Card Number and Imprinted Card Number.
- ▽ Default Card entries can be determined by creating a local file named "CardDflt.txt". Each workstation can have a different card default file that sets card settings such as number of uses, start and stop dates, guard tour, access level and output linking level for each location.
- ▽ The number of automatic backups can be controlled by an entry called "BackupRollOver" in the registry on the Comm Server PC. The default setting is 9, which will provide 10 backups before writing over the first. This determines the number of automatic backups for database and history.
- ▽ Linking Report is now part of the Input and Output definition screens in database. This report shows details of all links associated with the selected input or output.
- ▽ In previous versions of WinDSX software, Password Profiles with restrictions as to what readers could be assigned in an access level would force the operator to use the view-create access level button. Now these same profiles allow the operator to use the drop down selection box or the view-create button.
- ▽ Comm Ports can be defined for use by the comm server PC for panel communications or by workstations for camera control.
- ▽ Poll Frequency and Message Time Out features for TCP/IP, RF and other master communication methods is now available. This allows a polling frequency to be set on the comm port defining how often a poll message is sent to the master controller and how long the comm server PC will wait for a reply. This allows the customer to adjust the amount of communication traffic to be generated across an RF link or how much bandwidth is used on a LAN/WAN for TCP/IP redirected communications.

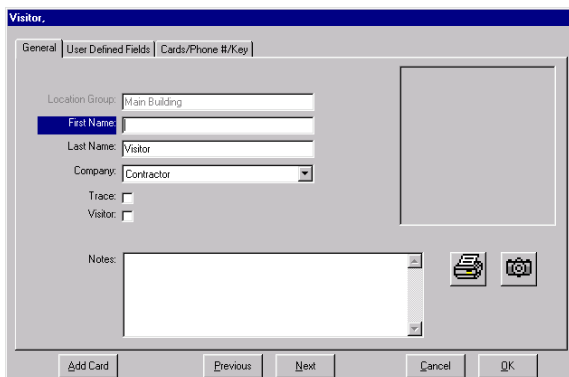
# WinDSX Version 1.3.6 Update

▽ Implemented a 10-file rotation in the auto back-up feature. This changed the auto back-up routine so that it will create 10 back-up files before writing over the first file. Auto back-ups can be configured for database and/or history and are run exclusively from the Communication Server PC.

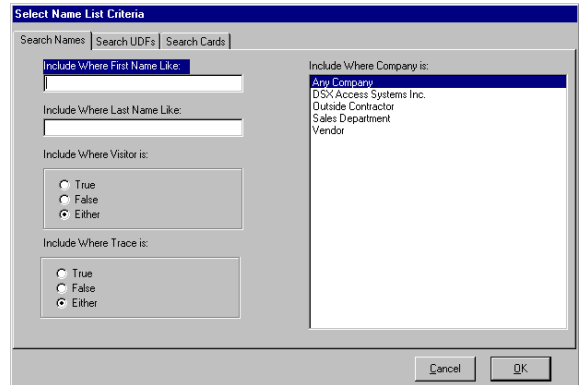
▽ Implemented a “View UDF” button to the Name Search feature in Workstation (binoculars). This new ability allows for a card holder to be selected from the Search Names list and the Show UDF button to be pressed, which replaces the names list with the UDF information for the card holder selected. Clicking on one of the buttons reverts the window back to the names list.



▽ Implemented the “Add Card” button to the Card Holder Names form. This button provides an even quicker way for the operator to add a code (card) for visitor applications. The operator simply clicks on “add a card holder” and then immediately presses the “Add Card” button, which will default the last name field to “visitor” so that a card can be added. The operator can then assign a card and access level. As soon as the card is saved, the download process begins and the operator returns to the name form and fills out the first/last name and company fields with the proper data. This provides additional time for the system to get the new card data downloaded to the controllers before the card is used.



▽ Implemented multiple Company Selection for Card Holder Search. This allows multiple company selections in the name search form. All search criteria is now cleared between searches. Also changed in the Card Holder Search was the sort on “cards not used since” so that it now will find cards that are equal to or less than the day setting. To find out who has not carded in since yesterday place a “1” in the “Cards not used since” field on the search cards tab.



▽ Implemented changes for new Signature capture device.

▽ Corrected various database and reports issues such as viewing access levels, spanning multiple disks for back-ups, adding and deleting the same data repetitively, next and previous buttons, UDF searches.

▽ Changed European date operation. Windows NT – Short and Long Date formats must be the same.

▽ Changed “daily operations check”, that occurs at midnight, so that cards set to be deactivated would be deactivated on the Stopdate instead of 1 day after.

▽ Implemented change so that card could be re-assigned from one card holder to another, and if access level and linking level are not changed no download is initiated.

▽ Implemented change so that pressing and holding the ALT key and other keys does not cause error.

▽ Fixed problem with DB presenting a “password not allowed” message on cardholder edits when the password level was not allowed to delete.

## WinDSX Version 1.3.0 Update

It is important that all WinDSX installations be updated for proper Holiday operation! Holidays may not function correctly unless version 1.3.0 is loaded on each PC running WinDSX.

- ▽ **Added First/Last Name and Last/First Name fields to Badge Template data selections.** This allows the names to be justified and printed on the same line as one field with either the first or last name displayed first.
- ▽ **Corrected problem with CS not downloading Holidays** to the master panel on certain dates. If a master panel received a full download on a certain day of each month the holidays would not be sent. The only way to tell if you have this condition is to examine the memory table of the panels. If the number of records in the table does not match the number of holidays defined then the system has this problem.
- ▽ **Corrected problem with the Card Holder Search Screen** that caused an error when there were more than 19 UDF's defined.
- ▽ **Implemented "And" logic for the Card Holder Search Screens.** This is the Card Holder Search screens that consist of 3 data tabs that can be used to specify Card Holder criteria. In earlier versions the search was based solely on the criteria entered on the last tab used. With the 1.3.0 version the data search tabs are joined in an "AND" fashion to work in conjunction with each other for a more specific search using multiple data criteria.
- ▽ **Implemented new Signature Device** control to make system compatible with the 1100 series signature pad.
- ▽ **Changed all checksum calculations from DB to CS.** Checksums are now completely handled by CS. Added a new field to all downloaded tables called CkSum. This field stores the last checksum value downloaded to the panels for this record.
- ▽ **Changed DB so that it removes the link to the cardholder when a card is deleted.** This will solve a problem with the card being displayed in the card holder report until daily ops run that night and remove the card record. This required a small change to the Cards table validation rules to allow a NameID of zero.

- ▽ **Corrected problem with UDF's that were printed on a Badge being printed as a bar code.** This problem only occurred when the text in the UDF started with the numbers 39.
- ▽ **Implemented an empty poll between each download message from the PC to the master.** This solved an intermittent problem where some slave panels would have checksum errors when multiple adds or delete messages were downloaded at the same time. The problem was that the master was not able to return the busy message to the PC before the PC sent the next change.

# WinDSX Version 1.2.0 Update

- ▽ **Scheduled Overrides** provide the ability to program a manual override to occur at a selected date/time in the future. Scheduled Overrides can be applied to Inputs, Outputs, and Override Groups. To program a scheduled override you select a start date/time and a stop date/time along with the action to take place each date/time. Valid action types are secure, open, time zone, arm, bypass. Scheduled Overrides can be used to setup temporary schedules for I/O points that automatically expire and revert back to normal system programming. For example have one particular door lock early on Friday and return to its normal time zone on Tuesday without having to program a holiday and modify a time zone.
- ▽ **Guard Tour** is the ability to plan, and track a route for a security officer to follow while checking in at tour stations. This will verify that the tour is actually being performed and that the guard has not been compromised. Each tour station or checkpoint can be customized as to what type of function must be performed to fulfill the station requirement. Tour stations can be generated from any card reader, keypad or input in the system. These station types can be different at each station and do not have to be dedicated to guard tour. The guard tour can be defined in a specific order so that each station must be reached in a preset manner within a predetermined amount of time. Or the tour can be set for a random order so that each station can be triggered in any order within an overall time limit. If a station is missed or reached late an alarm is generated and a custom response plan is displayed.
- ▽ **ASCII File Import** 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. The WinDSX Software scans its database resource every 15 seconds for these text files and automatically imports the data and initiates an incremental download to the system controllers.
- ▽ **Key Logging** provides the ability to create a database that catalogs each key in the location. (We are referring to the conventional metal keys used to unlock doors). Each Key has a name, doors description, key type, pinning, and notes field. These Keys are then assigned to the cardholders to record who has keys to which doors. There is a special Key Holder Report that prints a list of everyone that has possession of the specified key.
- ▽ **Output Linking Level Enhancement**  
The Output Linking Level data entry form has been changed to allow multiple output groups to be associated with the same device. This can make elevator control systems easier to program. Place each output that is used for elevator control in a separate output group and name it appropriately (Cab 1 Floor 3). When creating the linking level select the device (reader) and then all of the output groups (floor select buttons) that should be enabled when a valid card is read at that reader.
- ▽ **Maps Automatically display on Alarm** You can have a map automatically display on an alarm from an input. When an alarm occurs the top most map in the list that contains that input will automatically pop up on the screen. The input icon will be blinking red. To see the alarm handling screen simply click on the icon.
- ▽ **Multiple Barcode formats on the same badge**  
This release now accommodates multiple barcode formats on the same badge template. For example a 3 of 9 barcode format could be used on one side for time and attendance and a 2 of 5 barcode format could be used on the back side for use with another system.
- ▽ **WAV files for input alarm annunciation** Inputs can have WAV files assigned to them to be used in conjunction with a Windows NT compatible sound card. Different sounds or custom voice messages can be used to represent different alarms or priorities. The WAV file for the highest priority input in alarm plays until acknowledged and then the next highest priority alarm takes over. The WAV files play until the alarm is acknowledged. There are a number of WAV files shipped with the software. Custom WAV files can be added to the system if you would like to provide your own.
- ▽ **Maximize Control Window** In the Workstation Program there is a Control Window where all inputs, outputs, and override groups are displayed and controlled (The top right window). By double clicking in the control window but not on an icon the Window is maximized so that a greater number of points are visible at one time. Double click again to put the window back to its original size.
- ▽ **Inhibit Alarm Resolve Until Input Is Normal**  
Each input can be programmed so that the system will not allow an alarm to be resolved as long as the point is still in alarm. This prevents the alarm from being cleared while the alarm is still active or the input state is unknown. Alarms from inputs that do not have this option can be cleared regardless of the current state of the input.

- ▽ **Last Card Use displayed in Name search**  
The Cardholder Name Search engine now displays the device and date of the last card use for the selected Cardholder. Now when searching for a Cardholder by name from the Workstation Program the last place they used their card is shown as well as their picture, active status, and company.
  
- ▽ **Image recall on Cardholder Trace**  
If a Cardholder is marked for trace their picture will be automatically displayed each time they use their card.
  
- ▽ **Operator Passwords always hidden** The Operator Password once entered is never displayed. When the operator is prompted to enter their Password it is masked from view while the operator enters it. It is also masked in the database so that no one regardless of access can see any passwords. The operator always has the ability to change their password at anytime.
  
- ▽ **Cardholder report full or condensed** The Cardholder report can now be printed in a full or condensed format. The full format contains all cardholder data and prints approximately 5 cardholders per page. The condensed format prints the most common data and can fit approximately 20 cardholders per page.
  
- ▽ **Automatic Duplicate Alarm Resolve**  
If the system sees that there are multiple alarms from the same point it will automatically clear all but the most recent alarm. For instance if you received 10 alarms from a PIR as someone walked through the room they would all appear on the screen but only the most recent would remain unacknowledged and require operator interaction.
  
- ▽ **Output Group Linking by Time Zone**  
The software will allow a time zone to be assigned to each output group to determine what days and times the output group can be linked to. This can be useful when an input is linking to an output on a change of state (non-alarm condition). The link is controlled with a time zone so the link occurs only on the days and at the times you specify. This can also be useful on an elevator control system when cardholders need access to secured floors at different times. This provides each cardholder access to secured floors according to the time zone assigned to the specific output group activated by their linking level. This requires firmware 538 and software 1.2.3 and higher.





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