



# DSX Access Control

## Microsoft Access™ and SQL Server™ Editions

### Feature Rich

DSX is a robust access control and system monitoring application that harnesses the power of the Windows™ desktop and server operating systems. Below is a partial list of standard features.

- Mobile Command Android™/iOS™
- Point Monitoring
- Photo ID Badging
- Time and Attendance
- DVR/NVR Integration
- AES256 Comm Encryption
- Access Level History Report
- Email/Text Alarm Notification
- HazMat/Emergency Lockdown - Mobile Activated
- Redundant Hot Swap Comm Servers
- FIPS/TWIC/CAC card compatibility
- Integrated Lockset Management
- External Card Holder Management API
- Alarm Maps
- Elevator Control - braXos
- Site License - No Charge for additional Client Workstations.
- System Growth - No Charge for additional Cards or Doors.
- Support Contract - Available
- 24 Hour Emergency Support - for DSX Dealers with No Annual Fee.

### Scalable Software

DSX is scalable and able to grow with your needs. Systems can grow from a single PC to multiple PCs. There are two editions of Software. DSX comes standard with a Microsoft Access database engine for small systems. DSX-SQL is designed for medium to enterprise size solutions using Microsoft SQL Server as the database engine. Microsoft SQL Server is user supplied. Both editions of DSX have similar features and capabilities.

### Mobile Command

DSX Mobile Command brings the power of the DSX Workstation program to the convenience of a Smart Phone. This Smart Phone application enhances the daily operation of the DSX System. The Mobile Command feature allows the manual locking/unlocking of doors, arming/bypassing of alarm points and the monitoring of system events performed on the go from a mobile but secure application.

Global functions such as Incident Response and even repetitive chores such as momentarily unlocking a door or turning lights on and off can be programmed into Command Keys for easy activation.

An Administrator can lockdown any school in the district or every school from one Command Key. Each building or an entire campus can be controlled through this Smart Phone application using WiFi or mobile cell service.



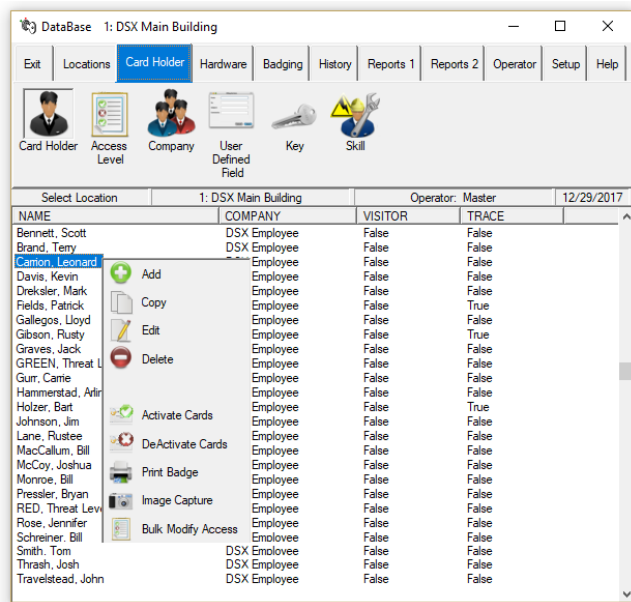


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## New User Interface

The new User Interface of DSX has an organized and simplified approach to database management. Tabs at the top of the screen show the different categories of data and function. Select the tab of interest and you will see icons for the different items in that collection. A simple click on the data in the list window shows you the commands allowed by your password. This application has the capabilities of prior versions with an Enhanced User Interface.



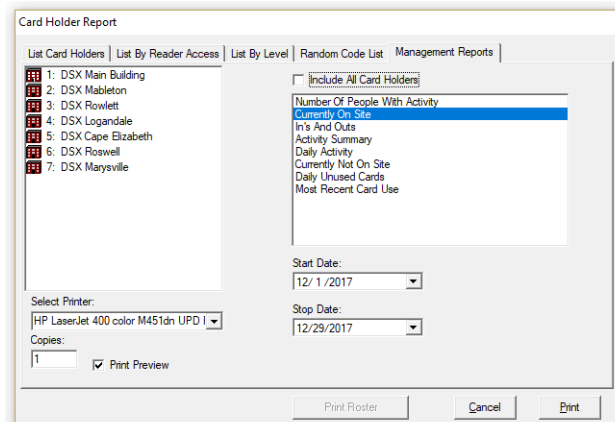
DataBase Program with Enhanced User Interface

## System Security

Password protection allows for operator specific capabilities to be executed at each workstation depending on the profile assigned to the operator. AES-256 Encryption is used to secure and safeguard the passwords. AD authentication can be used to enforce password complexity and the frequency the passwords must be changed.

## Management Reports

There are two new Management Reports that provide valuable data. These reports do not require In and Out Readers. **Daily Unused Cards** is a report of Active Cards that have not been used in X Hours. This can be used to find out "Who Is Not Here" at any time during the day. The report is presented by Location and sorted by Company. The Card Holders rendered by the report are listed with their last use. **Most Recent Card Use** is a "Last Use" report that shows all Active Card Holders and the last place they used their card. The report is presented by Location and sorted by Company.



## Special Applications

DSX has strong linking capabilities that allow for any card, input or output in a location to link (interlock) with any other input, output, or time zone in that location. These linking applications are simply programmed under the Hardware Tab and require no additional equipment or services.

### Complex Applications include:

- Snow Days/First Man In/Man Trap
- Manager First/Two Man Rule
- Time Zone/Access Level Control
- Virtual Outputs/Clean Up Timers
- Lock- Bell Schedules/Emergency Lockdown
- Handicap Doors/Incident Response

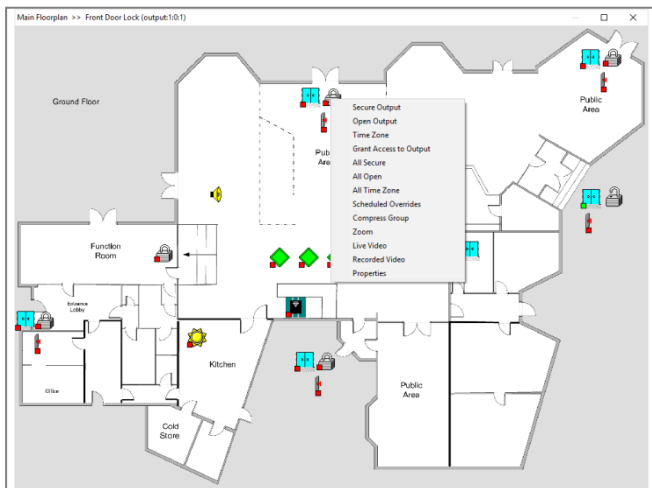


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## Graphic Alarm and Control Maps

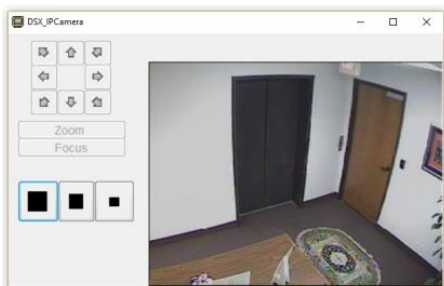
Graphic maps display the true real time status of assigned inputs and outputs. Maps also allow the operator to perform manual overrides of the inputs, outputs, and override groups in real time.



Graphic Map showing Real Time Status Icons

## Video Integration

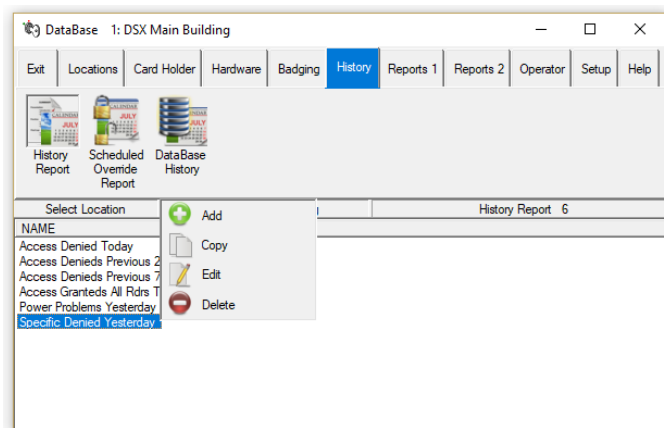
DSX can integrate with over 20 different DVR/NVR systems and IP Cameras. This integration allows stored and live video from the DVR to be accessed within the DSX software. All video is transmitted across a network connection. Remote Viewing Interface features vary based on make and model of DVR/NVR system. Check our website to see compatibilities.



DVR Viewing Interface

## History Report Generation

Custom History Reports can be defined choosing any combination of locations, doors, events and cardholders providing as general or specific a report as needed. The reports can be previewed before printing and can be sent to a local printer or any printer on the network. Report configurations can be saved and run at any time. History reports can be preconfigured and automatically run up to twice a day each day of the week and even Emailed from the workstation they were created on. Numerous custom reports can be saved.



## History Tab of DataBase

Scheduled Override Report shows all scheduled overrides past, present and future and if they were completed.

DataBase History is a simple method of seeing what has changed in the database, when and by whom.

## PC Requirements

PC Hardware Requirements can be found on the DSX Website under products and software



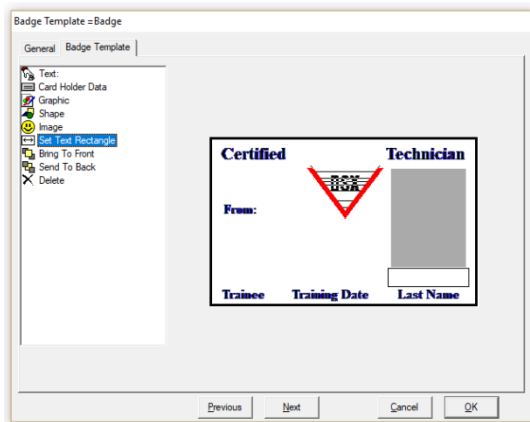
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## Photo ID Badging

Badging is an integral compliment of all versions of DSX. The DSX system can produce photo ID badges for employees and visitors. The system allows the user to create badge backgrounds (templates) on which digital images and card holder data is imposed when the card is printed. This exceptional feature that comes standard, for no additional charge, allows photos to be imported or captured out of a live feed from a high-resolution USB connected Camera with a remote control.

Badge templates are created using drag and drop tools with new features such as transparent backgrounds, image ghosting, text centering, text shrink to fit, right alignment, bring to front - send to back layering and rotation to any degree. The ability to create unlimited badge templates allows for all departments and user groups to have unique badges. Single or two-sided, color or monochrome, badges can be printed one at a time or in a batch mode. A print preview feature displays the assembled badge prior to printing with some lastminute adjustments available.



## DSX Badge System Features:

- Digital Camera Pan and Tilt
- Batch Card Printing
- Image/Signature Importing
- Live Image Capture - USB Webcam
- No Features Key Required
- Transparent Backgrounds
- Multiple Images for each Person
- Image Cropping and Editing/Auto Image Editing
- Rotate Text and BarCodes
- Encode Magstripe Track 1, 2, 3 w/equipped printer
- Generates 3 of 9, 2 of 5, 43 and 128 barcodes
- Single Sided/Double Sided Badges
- CR-80 to CR-100 Card
- Color and/or Black and White Badges
- Text Centering / Shrink to Fit text and data fields
- Right Alignment/Text Underlining
- Font and Text Color selection for each printed field
- Image Ghosting
- Bring to Front/Send to Back Layering

## Camera Specifications:

- Motorized pan, tilt and zoom
- USB video class (UVC) supported applications
- Full HD 1080p
- Camera and remote control
- 10-foot range remote control
- Pan, tilt and zoom
- Carl Zeiss Optics with 9-point auto focus
- 78-degree field of view
- 180-degree pan, 55-degree tilt
- USB 2.0 compliant
- 8-foot USB cable
- 8-foot universal power adapter
- 9-inch extender stem for elevation

## Printers:

DSX prints to any Windows™ compatible direct card printer such as HID and Zebra.



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### Operator Audit Trail

Fail Safe or Fail Secure Relay Action  
Icons for Input Normal/Abnormal state  
Icons for Output On/Off state  
TCP/IP Communications, USB, Dial-up Modem  
Limit Number of Card Uses 1-10,000  
Card Disable Reader  
Multiple De-activate Dates for Cards  
Threat Level Management  
Mobile - Smart Phone Application  
Auto/Manual Image Recall  
Workstation Event Filtering  
Global Access Level Manager  
Unlimited Access Levels Per Card Holder  
Date Controlled Temporary Access Levels  
Card Use It or Lose It - Automatic Deactivation  
Precision Start Times/Dates for Card Activation  
Precision Stop Times/Dates for Card De-activation  
Card Holder Biometric Enrollment Export  
Embedded Hot Links in Action Messages  
Scheduled Overrides w/Multiple Dates per  
Time Zones controlled with Linking Logic  
Hot-Swap Backup Communications Server - SQL  
Hidden & Predefined User Defined Fields  
Alarm Email Notification/Text Messaging  
Comm Server (CS.exe) runs as a Service  
Bulk modification to Card Holder Access Levels  
AES Encryption from Comm Server to Controllers  
AES Encryption from Comm Server to Workstations  
AES Encryption for DSX Passwords  
AD Integration for Operator Logon  
Startup Map (always displayed)  
Custom Map Sizes

### DSX-L85 Software & Integrated Locksets:

Schlage - AD Series Wireless/Hardwired Locksets  
Schlage - NDE and LE Wireless Locksets  
DSX-L85 Supports LAN and USB communications to  
Locksets. Lockset Features Supported - Standard,  
Curfew Classroom/Storeroom, Office, Privacy and  
Apartment.

### DSX Software Specifications and Features:

32,000 Locations  
128 Doors/Readers per location  
50,000 Access Codes per location  
32,000 Time Zones with 3 Holiday overrides each  
32,000 Access Levels  
32,000 Inputs/32,000 Outputs  
32,000 Companies  
32,000 Holidays  
99 User Defined Fields  
32,000 System Operators and 32,000 Profiles  
32,000 ASCII Output Messages  
999 Operator Comments  
32,000 Graphic Alarm Maps  
32,000 Custom Action Messages  
Import Graphic Alarm Maps of 21 file types  
265 + Card formats  
FIPS/TWIC Card Compatibility up to 17 digits  
Integral Photo ID Badging  
Time and Attendance  
Guard Tour/Visitor Management  
DVR/NVR Integration  
Auto Incremental Downloads (changes only)  
Floor Select Elevator Control and Reporting  
High Level Elevator Control with BraXos  
After Hours HVAC Zone Control  
Global Input/Output Linking  
Global Code to Input/Output Linking  
4 Zone Anti-Passback w/Hard, Soft and Timed  
Integral Database Backup System - Access only  
Integral Custom Report Generator w/Previewing  
Schedule Automatic History Reports/Email SMTP  
"Who Is In" Input/Mobile App Activated via Email  
Card Holder "Photo Roster" Report  
Code Tracing - Reader and User selectable  
Regional Time Zone aware



# DSX Software

## PC Hardware Requirements

DSX, DSX-SQL, PC Master, L85 and SIO are compatible with the latest and most recent Windows Platforms. PC Hardware and Operating Systems for these applications are outlined below. The hardware requirements are a minimum specification, which can always be exceeded if desired. All PCs used in the DSX system must meet these minimum requirements for the system to be supported by DSX.

**Note** /// System performance is dependent on the PC and LAN processing speed. If you have any questions regarding the DSX software and PC requirements, please call DSX Technical Support. This PDF, located on the DSX Website, supersedes all other disseminations.

<b>CPUs Minimums</b>	<b>Application</b>
Intel i3 Dual Core (equivalent or better)	Single Comm Server No Clients 1 Location 4GB RAM - Minimum
Intel i5 Quad Core (equivalent or better)	Single Comm Server, Multiple Clients Multiple Locations 6GB RAM - Minimum
Intel i7 Quad Core (equivalent or better)	Primary and Backup - - Comm Servers -SQL Multiple Clients Multiple Locations 8GB RAM - minimum
<b>Memory Minimums</b>	<b>Application</b>
4-8GB	Basic System, Single PC
8GB+	Multi-Location Comm Server and Badging
<b>Drive Minimums</b>	<b>Application</b>
USB Port for Flash Drive	Software Installation
1G Hard Drive Space minimum	DSX Install requires 100M SQL Databases require 300M
<b>Monitor</b>	<b>Application</b>
1024 x 768 or better	Badging, Maps
17" or larger recommended	

<b>LAN Communications</b>	
Adapter 100Mbit or better	100M or better recommended
Requires TCP/IP Protocol	Use MS Loopback Address if there is no LAN
Comm Server	Static IP Address -required
LAN Modules	Static IP Address -required
Comm Server to Controller	UDP - ports 4000 to 5000
Comm Server to Workstation	TCP - ports 22223 / 22224
Mobile Service (optional)	TCP 60001-60002 configurable
<b>Sound</b>	<b>Application</b>
Windows™ compatible sound card.	DSX can play WAV files for input alarms.
<b>Backup Gear</b>	<b>Application</b>
Windows™ compatible Backup gear.	DSX can send backups to logical drive. DSX SQL uses SQL Server for backups.
<b>Modem</b>	
DSX External dial-up	DSX Modems are the only modems supported by DSX.
<b>Serial Ports</b>	
DSX-USB USB to RS-232 / RS-485.	Used for Direct and Dialup communications.
<b>Client Operating Systems</b>	<b>DSX Version</b>
Windows™ 10 1809 Pro +64 bit	5.0.22 / 6.0.22 and higher
The Comm Server can run on a Client Operating System.	
<b>Server Operating Systems</b>	
Server 2012 R2	3.9 / 4.9 and higher
Server 2016	5.0.22 / 6.0.22 and higher
Server 2019 CU1	5.0.22 / 6.0.22 and higher
Server Operating Systems	Require Active Directory
<b>SQL Server</b>	
SQL 2012 sp3	4.9 and higher
SQL 2014 sp2	4.10 and higher
SQL 2016 sp1	6.0.22 and higher
SQL 2017 CU9	6.0.22 and higher
SQL 2019 CU1	6.0.22 and higher
TLS 1.2 w SQL2016 and >	6.2.24 and higher
<b>Dependencies</b>	
Access and SQL	.Net Framework 4.0 and >
SQL	SQL Native Client - provided



**DSX Access Systems Inc.**

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