



WinDSX Linking Logic

DSX Component Linking Logic

Component Linking redefines the powerful Linking features DSX is known for. A whole new dimension to controlling the different Components of the WinDSX system comes from it. It basically provides the ability to link to Time Zones as well as Inputs and Outputs. Anything in the system that is controlled by a time zone can now be controlled through Linking. Just as the armed state of Inputs can be controlled, the on/off state of Outputs can be manipulated, Time Zones can now be forced into an On or Off State thereby controlling what ever that Time Zone is assigned to. Time Zones can control Alarm Echo, Access Levels, Devices (readers/keypads), Event Filters, Image Recall, Inputs, Outputs, and Linking Groups.

The powerful new ability of Component Linking has many useful applications. Time Zones can now be turned on or off instantly without altering the database or the need of downloading data. A Time Zone can now be controlled with a Card Read (Code to Time Zone Link), with an input or output change of state (I/O to Time Zone Link), or manually from the workstation program with the use of a Virtual Output (Output that does not physically exist). Time Zones can be linked to by Inputs, Outputs, or Card reads without the Comm Server PC being online.

Lets cover first the basic Components that can be controlled then we will discuss the more specific applications. Access Levels, Alarm Echo, Devices (readers/keypads), Event Filters, Image Recall, Inputs, Outputs, and Linking Groups can all have the Time Zones that are assigned to them manipulated to an on or off status. This can be initiated with an Input alarm or change of state. It can be started by the status change of an output or the use of a Card or Code at a reader or keypad. These methods can be used with the Comm Server PC being offline. Another way to initiate a Link to a Time Zone is with a Virtual Output. Virtual Outputs do not physically exist on a Controller but they can be programmed into the system and used for a number of control applications. A Virtual Output can be controlled manually from the Output Control Window of Workstation. Virtual Outputs can also be controlled by Time Zones or by Scheduled Overrides.

Requirements

WinDSX 3.7 and higher and WinDSX SQL 4.7 and higher must be used to achieve Component Linking. These new revisions of software can be used in any existing system. However to program a Link to a Time Zone requires that all of the controllers in that location must be a new style controller (1040 series or 1022) with a minimum Firmware Version of 3111. This new linking ability also requires an upgrade in PC Master and Soft I/O programs.

Applications

The following is a short list of applications that can be easily achieved by Component Linking: Snow Days – First Man In, Manager First, Two Man Rule, Reader Lockout, Emergency Lockdown, Access Level Control, Threat Level Management, Photo Verification and more. Below is more detailed information on the applications.

Snow Days – First Man In

Snow Days can be implemented to prevent doors that normally unlock on a schedule from unlocking when weather or other conditions prevent anyone from traveling to or occupying the location or building. The Time Zone that normally unlocks the door is overridden until a card is first used to gain access to the building. This could be the same door or a different door. For example the Front or Public Access Door will not unlock until someone comes in the employee entrance. This can be constructed in such a way that a particular person must use their card first such as a manager or the receptionist that sits at the front door or just any card holder at any door.

Manager First

This application can be used to keep other employees cards from gaining access to the building when the manager is not on site. Certain Access Levels would be disabled until a manager arrived and used their card thereby enabling those Access Levels of the subordinates.

Two Man Rule

This application requires that two different cardholders must use their card before they can gain access to a door. This could be set up for any two card holders or it could be taken a step farther so that for example a card holder from Group A and one from Group B must both use their card for the door to unlock.

Reader Lockout

In an emergency situation it may be necessary that certain or all readers be shut down so that no ones cards work at that reader. This could be initiated from an input alarm or status change or from a Virtual Control Output in the Workstation program.

Emergency Lock Down

In an Emergency or Hazmat situation it may be required to lock all or certain doors with only particular personnel having the ability to gain access. This could be initiated from an input

alarm or status change or from a Virtual Control Output in the Workstation program.

Access Level Control

Holidays or emergencies can require that Access Levels be enabled or disabled quickly and without downloads from either the PC or from an Input Alarm. Card Holders could have two or more access levels one of which works normally while the other has been disabled through Component Linking. With the activation of a button or Icon the first access level is disabled and the other enabled thus changing the doors and times that card holders have access to. It may be required to just disable certain access levels thereby accelerating the restriction of access through a facility. This is easily done with the use of separate Time Zones for different Access Levels despite that the Time Zone definitions are similar.

To implement Holiday control over access levels there could be separate Virtual Outputs for each Access Level that requires different manipulation. These Outputs could be identified by what they are controlling. These outputs are easily selected in the Workstation Output Control window and a Scheduled Override applied. The Scheduled Override would be given a Time and Date that the Access Level should be disabled and another Time and Date of when it should resume operation.

Threat Level Management

Security or Threat Levels can now be implemented and executed without system reconfiguration, database manipulation or downloads. With the press of a panic button or use of an Icon, readers can be disabled, doors locked, access levels altered to meet the requirements of the threat. There could be multiple Icons or Inputs switches that incrementally increase security and decrement access. Many of the prior applications can be combined to achieve what ever is necessary to address the threat.

Photo Verification

In a given situation it might be necessary to immediately restrict access levels into a certain door. At the same time image recall could be enabled so when the card holder presents their card they are denied access but their stored photo is displayed allowing the operator to compare their stored photo against the live video feed. If the stored photo and the live feed match the operator manually grants them access to the door.