WinDSX Linking Instructions

How to Program Input to Input Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Linking Logic".

Define the "Input(s)" to be linked from and to. By linking to an input the armed state of the input can be bypassed. The input must be initially armed by time zone so the input link can change its armed state. If the input that is linked to is armed when the link occurs, the linked to input will be auto-bypassed. If the input is not armed by time zone when the link occurs nothing takes place. When the link to an input expires, the input returns to its time zone.

Define a new "Linking Group", this should include only the points that you want affected by the link. Give the new Linking Group a "Name" > go to the "Linking Group Components" tab > double click on "Inputs". A list of all the defined inputs will appear. Left click on an input that will be linked to, this will highlight the input. Select a "Time Zone". Linking will only occur when the Linking Groups time zone is active. Next, select a "Response Type". The response type defines how the point will act during the link. Valid response types include Latch, Pulse, Follow, Toggle, or Time Zone.

Latch=(the input is bypassed until reset from the WinDSX Workstation),
Pulse=(the input is bypassed for the amount of time that is set using "Pulse Time"),
Follow=(The input armed state follows the normal/abnormal state of the point that initiates the link),
Toggle=(change the input to the opposite of its current armed state),
Time Zone=(return the input to its programmed time zone).
If "Pulse" is selected as the response type, then a pulse time will also have to be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes. Any inputs within a Linking Group will bypass as defined in response type. Once a "Response Type" and "Time Zone" is provided the red circle will disappear from the input to show it is included in the Linking Group.

Assign the "Linking Group" to the "Input" that initiates the link. Within "Input" > "Options," (of the input that initiates the link), select the Linking Group that should be linked to under "Activates Linking Group". Next, select when the input should perform the link. Next to "Perform Link On", select "Alarm" if you want the link to occur when the input goes into alarm, or "Status Change" if you want the link to occur when the input changes states.

Check List for Input to Input Linking

1. Enable Linking Logic under Location.
2. Define the point(s) that you want to link from and to.
3. Create a Linking Group consisting of the point(s) to be linked to.
4. Assign the Linking Group to the point that initiates the link.

How to Program Input to Output Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Linking Logic".

Define the "Input(s)" to link from and the "Output(s)" to be linked to. On the Input "General" tab, select a "Time Zone" which defines when the Input will provide an Alarm. In the Output(s) "Options" tab select the "State When Linked To". This will be the state that the output should go to when it is linked to. It is suggested that the on or energized state of the output that is being linked to impede the operation of the other system it is controlling. This ensures that in the event of a failure, the other system returns to normal operation. The "Time Zone" is the state in which the output should be normally. The "State When Linked To" is the state that the output should change to when the link occurs. This only applies to the output that is receiving the link, not the input that is initiating the link.

Define a "Linking Group", this should only include the points that you want affected by the link. Give the "Linking Group" a "Name" and go to the "Linking Group Components" tab > double click on "Outputs". A list of all the defined Outputs will appear. Left click on an output that will be linked to, this will highlight the output. Select a "Time Zone". (Linking will only occur when the time zone is active.) Next, select a "Response Type", the response type defines how the point will act during the link. Valid response types include Latch, Pulse, Follow, Toggle, or Time Zone.

Latch=(the output is opened or secured, according to its configuration, until reset from the WinDSX Workstation),
Pulse=(the output is opened or secured, according to its configuration, for the amount of time that is set using "Pulse Time"),
Follow=(the output follows the open or secure state, according to its configuration, of the point that initiates the link),
Toggle=(change the output to the opposite of its current state),

Time Zone=(return the output to its programmed Time Zone).
Once a "Response Type" and "Time Zone" are selected the red circle will disappear from the output to show that the Linking Group is defined. If "Pulse" is selected as the response type, a pulse time must be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes.

Assign the "Linking Group" to the "Input" that initiates the link. Within "Input" > "Options," (of the input that initiates the link), select the Linking Group that should be linked to under "Activates Linking Group". Next, select when the input should perform the link. By the "Perform Link On", select "Alarm" if you want the link to occur when the input goes into alarm, or "Status Change" if you want the link to occur anytime the input changes states.

Check List for Input to Output Linking
1.   Enable Linking Logic under Location.
2.   Define the point(s) that you want to link from and to.
3.   Create a Linking Group consisting of the point(s) to be linked to.
4.   Assign the Linking Group to the point that initiates the link.

How to Program Code to Input Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Code to Linking Logic".

Within "Location" > "Device" > "Options" place a checkmark at "Device Used for Code to Linking Logic".

Define the "Input(s)" to be linked to. By linking to an input the armed state of the input can be bypassed. The input must be initially armed by time zone so the input link can change its armed state. When the link to an input expires, the input returns to its time zone.

Define a "Linking Group", this should only include the points that you want affected by the link. Give the Linking Group a "Name". Go to the "Linking Group Components" tab > Double click on "Inputs". A list of all defined inputs will appear. Left click on an input that will be linked to, this will highlight the input. Select a "Time Zone". (Linking will only occur when the time zone is active.) Next, select a "Response Type", the response type defines how the point will act during the link. Valid response types include Latch, Pulse, Toggle, or Time Zone.

Latch=(the input is bypassed until reset from the WinDSX Workstation),
Pulse=(the input is bypassed for the amount of time that is set using "Pulse Time"),
Toggle=(change the input to the opposite of its current state),
Time Zone=(return the input to its programmed time zone).
Once a "Time Zone" and "Response Type" is selected the red circle will disappear from the input to show it is defined. If "Pulse" is selected, then a pulse time will also have to be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes. Any inputs within a Linking Group will bypass as defined in response type.

Define a "Linking Level". Provide the new Linking Level a "Name", within the "Edit Linking Level Data" screen choose a "Device" that is to receive

the card read which initiates the link and choose the "Linking Group(s)" that should be activated when the link occurs.

Assign the "Linking Level" to the code of the cardholders that need too cause the link. This is done by going to Database > Location > Card Holder > Add or locate existing Cardholder > Cards/Phone #/Key > Add New Card # > Assign Linking Level.

Check List for Code to Input Linking
1.   Enable Code to Linking Logic under Location.
2.   Enable Device Used for Code to Linking Logic within Device Options.
3.   Define the point(s) to be linked to.
4.   Create a Linking Group consisting of the point(s) to be linked to.
5.   Create a Linking Level.
6.   Assign the Linking Level to the codes that should initiate the link.

How to Program Output to Input Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Linking Logic".

Define the "Output(s)" to be linked from and the "Inputs" to be linked to. By linking to an input the armed state of the input can be bypassed. The input must be initially armed by time zone so the input link can change its armed state. If the input is not armed by time zone when the link occurs nothing takes place. When the link to an input expires, the input returns to its time zone.

Define a "Linking Group", this should include only the points that you want affected by the link. Give the "Linking Group" a "Name", go to the "Linking Group Components" tab > double click on "Inputs". A list of all defined inputs will appear. Left click on the input that will be linked to, this will highlight the input. Select a "Time Zone". Linking will only occur when the time zone is active. Next, select a "Response Type". The response type defines how the point will act during the link. Valid response types include Latch, Pulse, Follow, Toggle, or Time Zone.

Latch=(the input is bypassed until reset from the WinDSX Workstation),
Pulse=(the input is bypassed for an amount of time that is set using "Pulse Time"),
Follow=(The input armed state follows the normal/abnormal state of the point that initiates the link),
Toggle=(change the input to the opposite of its current armed state),
Time Zone=(return the input to its programmed time zone).
If "Pulse" is selected, then a pulse time will have to be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes. Any inputs within a Linking Group will bypass as defined in response type. Once a "Response Type" and "Time Zone" is provided the red circle will disappear from the input to show it is included in the Linking Group.

Assign the Linking Group to the Output that initiates the link. Within "Output" > "Options" at the bottom of the page, select the Linking Group that should be linked to where it asks "Activates Linking Group". Next, select when the output should perform the link. By the "Perform Link On", select "Secure" if you want the link to occur when the output is energized, or "Open" if you want the link to occur when the output de-energized.

Check List for Output to Input Linking
1.	Enable Linking Logic under Location.
2.	Define the point(s) that you want to link from and to.
3.	Create a Linking Group consisting of the point(s) to be linked to.
4.	Assign the Linking Group to the point that initiates the link.

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How to Program Output to Output Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Linking Logic".

Define the "Output(s)" to link from and the "Output(s)" to be linked to. It is suggested that the on or energized state of the output that is being linked to impede the operation of the other system it is controlling. This ensures that in the event of a failure, the other system returns to normal operation. The "Time Zone" is the state in which the output should be normally. The "State When Linked To" is the state that the output should change to when the link occurs. This only applies to the output that is receiving the link, not the output that is initiating the link.

Define a "Linking Group", this should only include the points that you want affected by the link. Give the "Linking Group" a "Name" and go to the "Linking Group Components" tab > double click on "Outputs". A list of all defined Outputs will appear. Left click on the output that will be linked to, this will highlight the output. Select a "Time Zone". (Linking will only occur when the time zone is active.) Next, select a "Response Type", the response type defines how the point will act during the link. Valid response types include Latch, Pulse, Follow, Toggle, or Time Zone.

Latch=(the output is opened or secured, according to its configuration, until reset from the WinDSX Workstation),
Pulse=(the output is opened or secured, according to its configuration, for the amount of time that is set using "Pulse Time"),
Follow=(the output follows the open or secure state, according to its configuration, of the point that initiates the link),
Toggle=(change the output to the opposite of its current state),
Time Zone=(return the output to its programmed Time Zone).
Once a "Response Type" and "Time Zone" are selected the red circle will disappear from the output to show that the Linking Group is defined. If "Pulse" is selected, a pulse time must be entered.

The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes.

Assign the Linking Group to the Output that initiates the link. Within "Output" > "Options" at the bottom of the page, select the Linking Group that should be linked to where it asks "Activates Linking Group". Then at the "Perform Link On", select "Secure" if you want the link to occur when the output is energized, or "Open" if you want the link to occur when the output de-energizes.

Check List for Output to Output Linking
1. Enable Linking Logic under Location.
2. Define the point(s) that you want to link from and to.
3. Create a Linking Group consisting of the point(s) to be linked to.
4. Assign the Linking Group to the point that initiates the link.

How to Program Code to Output Links

Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Code to Linking Logic".
Within "Location" > "Device" > "Options" place a checkmark at "Device Used for Code to Linking Logic".

Define the "Output(s)" to be linked to. In the "Output(s)" > "Options" tab select the "State When Linked To". This is the state that the output should go to when the link occurs. It is suggested that the on or energized state of the output that is being linked to impede the operation of the other system it is controlling. This ensures that in the event of a failure, the other system returns to normal operation. The "Time Zone" is the state in which the output should be normally. The "State When Linked To" is the state that the output should change to when the link occurs. This should only apply to the output that is receiving the link, not the output that is initiating the link.

Define a "Linking Group", this should only include the points that you want affected by the link. Give the Linking Group a "Name" and go to the" Linking Group Components" tab > double click on "Outputs". A list of all the defined Outputs will appear. Left click on the output that will be linked to, this will highlight the output. Select a "Time Zone". Linking will only occur when the time zone is active. Next, select a "Response Type", the response type defines how the point will act during the link. Valid response types include Latch, Pulse, Toggle, or Time Zone.

Latch=(the output is opened or secured, according to its configuration, until reset from the WinDSX Workstation),
Pulse=(the output is opened or secured, according to its configuration, for the amount of time that is set using Pulse Time),
Toggle=(change the output to the opposite of its current state),
Time Zone=(return the output to its programmed Time Zone).
Once a "Response Type" and "Time Zone" are selected the red circle will disappear from the

output to show that the Linking Group is defined. If "Pulse" is selected, a pulse time must be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes.
Note ///For Elevator Control it is recommended that each output be placed in a Linking Group by itself.

Define a "Linking Level". Provide the new Linking Level a "Name" then within the "Edit Linking Level Data" screen choose a device that is to receive the card read which initiates the link and choose the "Linking Group(s)" that should be affected when the link occurs.
Assign the "Linking Level" to the code of the cardholders that need it. This is done by going to Database > Location > Card Holder > Add or locate existing Cardholder > Cards/Phone #/Key > Card # > assign Linking Level.

Check List for Code to Output Linking
1.   Enable Code to Linking Logic under Location.
2.   Enable Device Used for Code to Linking Logic within Device Options.
3.   Define the point(s) to be linked to.
4.   Create a Linking Group consisting of the point(s) to be linked to.
5.   Create a Linking Level.
Assign the Linking Level to the codes that should initiate the link.

Linking to a Time Zone can force it to a pre-selected state of on or off as selected here. Anything this Time Zone is assigned to is subsequently affected. This could be used to control Access Levels, Alarm Echo, Devices (readers/keypads), Event Filters, Image Recall, Inputs, Outputs, and Linking Groups.

Select **On** if you want the Time Zone to become active when linked to. This will basically enable or turn on what ever it is assigned to.

Select **Off** if you want the Time Zone to become inactive when linked to. This will basically disable or turn off what ever it is assigned to.

How to Program Links to Time Zones

To Enable Linking - Within "Location" > "Location Name" > "Y/N Options" place a checkmark at "Enable Code to Linking Logic" for card activated linking, and "Enable Linking Logic" for I/O activated linking. Within "Location" > "Device" > "Options" place a checkmark at "Device Used for Code to Linking Logic".

Define the "Time Zone (s)" to be linked to. On the "Time Zone" > "General " tab select the "Time Zone is On or Off" when Linked to. This is the state that the Time Zone should go to when the link occurs. Select On if you want the Time Zone to become active when linked to. Select Off if you want the Time Zone to become inactive when linked to. Linking to a Time Zone can force it to a pre-selected state of on or off as selected. Anything this Time Zone is assigned to is subsequently affected. This could be used to control Access Levels, Alarm Echo, Devices (readers/keypads), Event Filters, Image Recall, Inputs, Outputs, and Linking Groups.

Define a "Linking Group", this should only include the points that you want affected by the link. Give the Linking Group a "Name" and go to the" Linking Group Components" tab > double click on "Time Zone". A list of all the defined Time Zones will appear. Left click on the Time Zone to be linked to, this will highlight the Time Zone to be linked. On the right hand side of the screen - Select a "Time Zone". Linking will only occur when this time zone is active. Next, select a "Response Type", the response type defines how the point will act during the link. Valid response types include Latch, Pulse, Toggle, or Time Zone.

Latch=(the time zone is turned On or Off, according to its configuration, until reset from another link that is programmed with a response of Time Zone to put it back to its schedule.)

Pulse=(the time zone is turned On or Off, according to its configuration, for the amount of time that is set using Pulse Time)

Toggle=(the time zone is turned to its opposite state, if it was active it becomes inactive and vice versa)

Time Zone=(return the time zone to its programmed Schedule).

Once a "Response Type" and "Time Zone" are selected the red circle will disappear from the Time Zone to show that the Linking Group is defined. If "Pulse" is selected, a pulse time must be entered. The "Pulse Time" can be from 1 to 32767 seconds or 1 to 546 minutes.

For I/O activated linking assign the linking group to the point that initiates the link. For Card activated linking define a "Linking Level". Provide the new Linking Level a "Name" then within the "Edit Linking Level Data" screen select a device that is to receive the card read which initiates the link and choose the "Linking Group(s)" that should be activated when the link occurs.

Assign the "Linking Level" to the code of the cardholders that need it. This is done by going to Database > Location > Card Holder > Add or locate existing Cardholder > Cards/Phone #/Key > Card # > assign Linking Level.

Check List for Time Zone Linking

1.   Enable Linking Logic or Code to Linking Logic or both under Location.

2.   Enable Device Used for Code to Linking Logic within Device Options. (for code activated linking only)

3.   Define the time zone(s) to be linked to. Set the Time Zones to be Linked On or Off.

4.   Create a Linking Group consisting of the time zone(s) to be linked to.

5.   Assign the Linking Group to the Inputs and/or Outputs that should initiate the link.

6.   Create a Linking Level and Assign the Linking Level to the codes that should initiate the link.

Important Time Zone Linking Rules - To see this entire document it will be necessary to print it.

A. The Time Zones that are being linked to cannot be assigned to what is initiating the link. In other words – What links to the Time Zone cannot be controlled by the Time Zone.

B. Build as many Time Zones as neseccary to make sure that when you link to a Time Zone it only affects those things you want affected. Re-using Time Zones could cause something to be controlled from a Link that was not desired.

C. If you link to a Time Zone with a Latch response you must have another Linking Group that links to that same Time Zone with a response of Time Zone.