

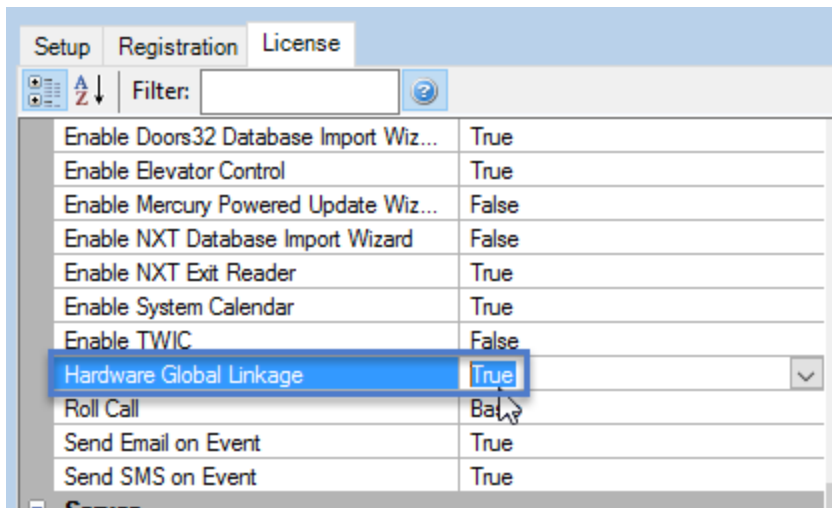
Global Linkage Setup Example

Program Doors to Unlock & Lock via an Input

The Global Linkage feature allows you to configure an infinite number of custom linkage actions so you can program various aspects of the system to behave exactly how you want. It is supported on all hardware types (PXL, NXT, NXT Mercury Powered (MSC) and Mercury hardware (SCP)).

Note: The decision-making is performed by the Global Linkage Service (GLS) at the host PC so it is important to understand that the global linkage actions will only happen when the programmed hardware is online.

To program Global Linkage you must have Hardware Global Linkage enabled in your license.



The Principles of Global Linkage

Global Linkage actions consist of **triggers**- A trigger is an event generated by the system (and appears in Live Events), *commonly used trigger examples are:*

- Access Granted Events
- Access Event - Double Card Presentation
- Access Denied Events
- Door Forced or Door Held Events
- Controller Offline (you can use this event to create actions on other online hardware)
- Input in Alarm State
- Input in Secure State



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- Door Unlocked by Time Schedule
- Door Locked by Time Schedule
- Door Opened
- Door Closed
- Reader Mode Changed - Card + PIN
- Reader Mode Change - Lock

When the trigger is defined and assigned to a hardware object the selected event is used to trigger a specific action (what you want the system to do). The actions are referred to as **macros**.

Commonly used Global Linkage Macros are:

- Activating or Deactivating Outputs
- Masking or Unmasking Inputs
- Grant an Anti-Passback Free Pass
- Send out an E-mail Message Notification
- Export a report which is saved in the Professional Report Client or saved via the Report Wizard
- Activate a Local Linkage Procedure
- Momentarily Unlock a Door or Group of Doors
- Set Card + PIN on a Door or Group of Doors

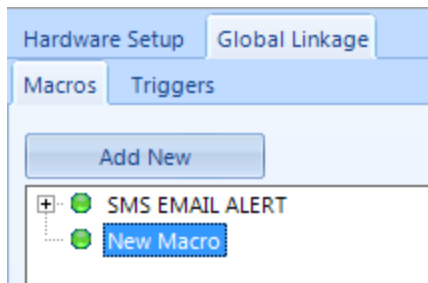
Note: A single trigger can be used to activate multiple actions (macros). For example; a specific input going active could unlock a group of doors, send an e-mail notification and activate an output all at the same time.

The following example explains how to setup a basic Global Linkage action which will unlock a group of doors when a specific input is activated. Those same doors will then lock again when the same input is de-activated.

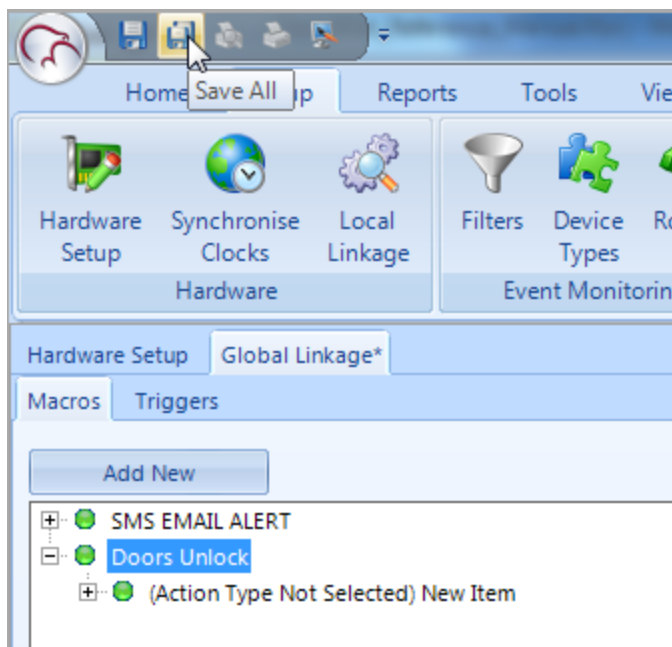
Macro Setup

1. From the Global Linkage macros tab click the Add New button.

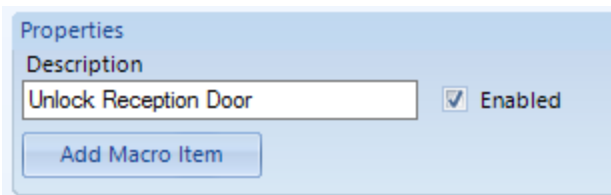
Global Linkage Setup Example



2. Give the new macro a descriptive name, click the Add Macro Item button then click save/save all.



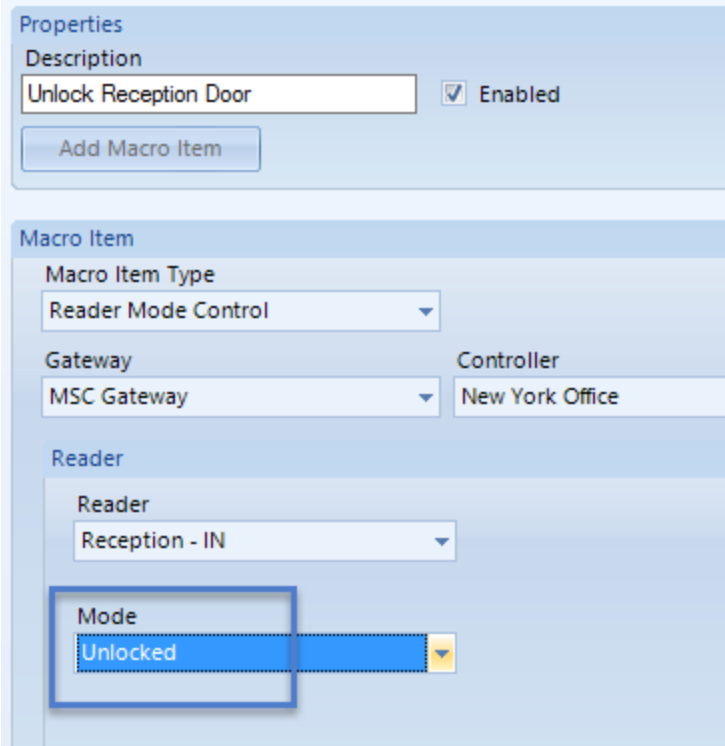
3. Highlight the new action type and give that a descriptive name.



4. From the Macro Item type drop-down list select Reader Mode Control.
5. Select the appropriate hardware gateway.
6. Select the relevant controller.

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7. Select the 1st reader to be used.
8. Set the Reader Mode to Unlock.



Properties

Description
Unlock Reception Door Enabled
Add Macro Item

Macro Item

Macro Item Type
Reader Mode Control

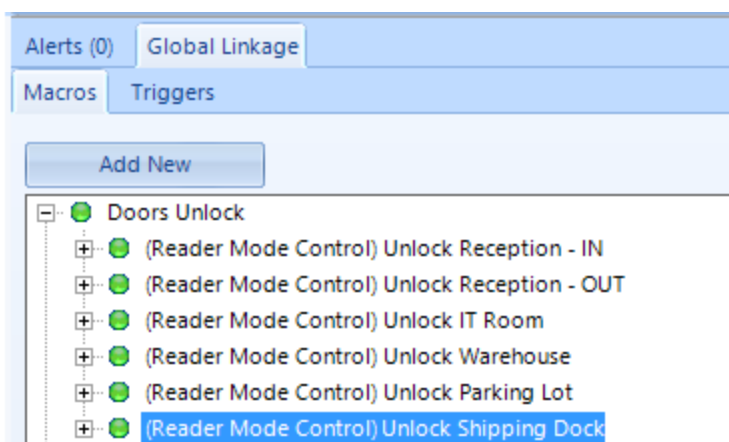
Gateway Controller
MSC Gateway New York Office

Reader

Reader
Reception - IN

Mode
Unlocked

9. Highlight the macro, click Add Action Item again, then repeat this same process for every reader on the system that needs to be part of the global unlock configuration. You will then have a Macro with multiple action types listed beneath - each one will be setup to unlock each of the doors. Keep in mind, as it is global linkage the doors can be located on completely different controllers, even different hardware gateways.



Alerts (0) Global Linkage

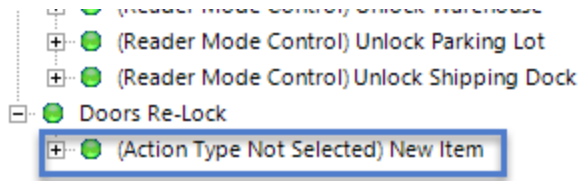
Macros Triggers

Add New

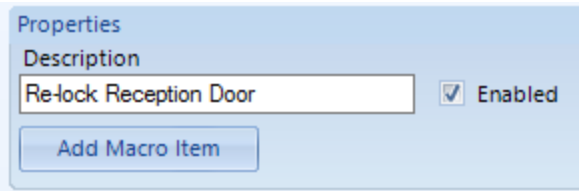
- Doors Unlock
 - (Reader Mode Control) Unlock Reception - IN
 - (Reader Mode Control) Unlock Reception - OUT
 - (Reader Mode Control) Unlock IT Room
 - (Reader Mode Control) Unlock Warehouse
 - (Reader Mode Control) Unlock Parking Lot
 - (Reader Mode Control) Unlock Shipping Dock

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10. A second macro needs to be added, this macro will put the doors back to their normal mode.
11. Rename the second macro and click the Add Macro Item button.

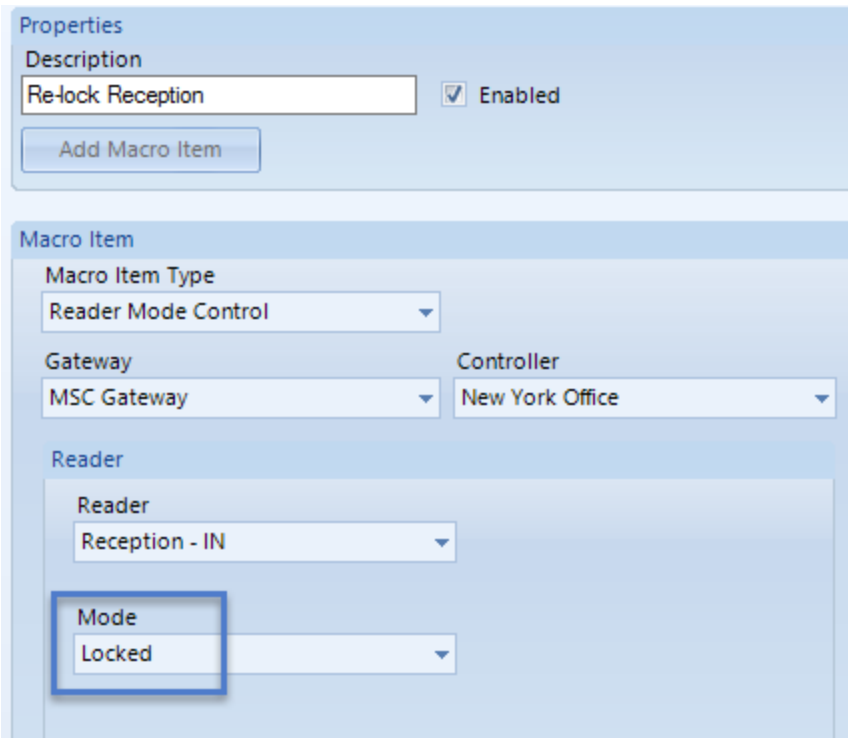


12. Again, give a descriptive name to the action type.



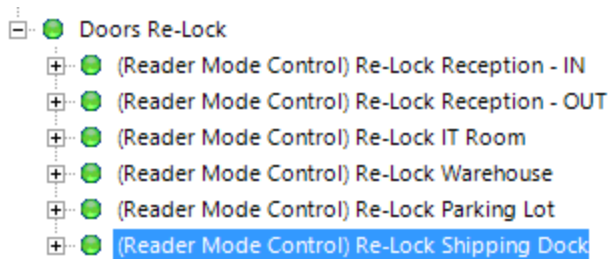
13. From the Macro Item type drop-down list select Reader Mode Control.
14. Select the appropriate hardware gateway.
15. Select the relevant controller.
16. Select the 1st reader to be used.
17. Set the Reader Mode to Locked.

Global Linkage Setup Example



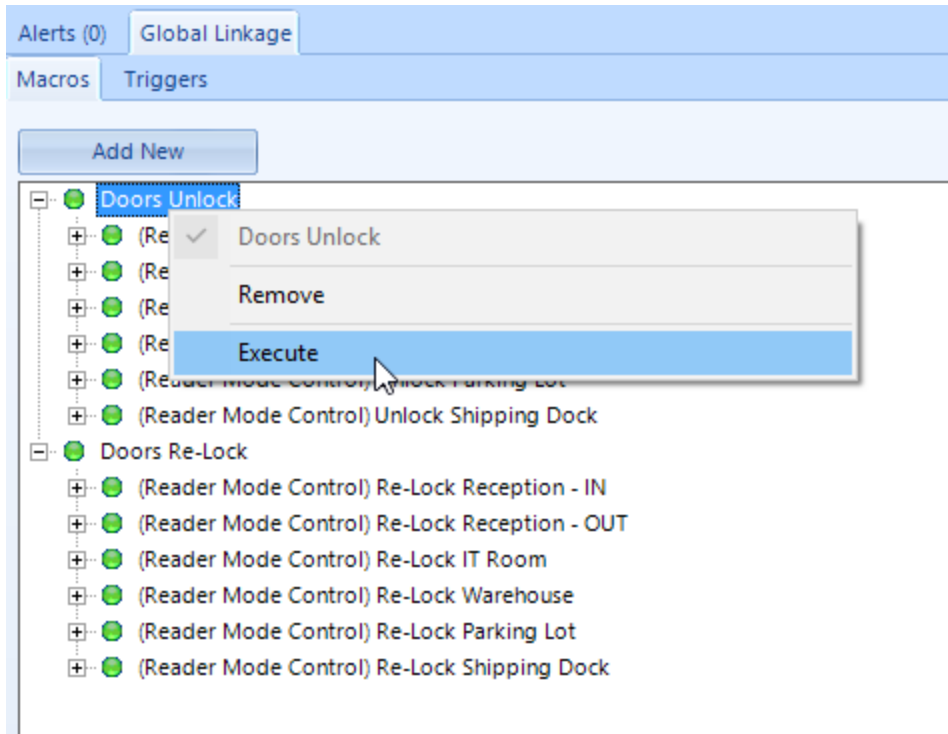
The screenshot shows a configuration window with two main sections: 'Properties' and 'Macro Item'.
In the 'Properties' section, the 'Description' field contains 'Re-lock Reception' and the 'Enabled' checkbox is checked. There is an 'Add Macro Item' button below.
In the 'Macro Item' section, the 'Macro Item Type' is set to 'Reader Mode Control'. The 'Gateway' is 'MSC Gateway' and the 'Controller' is 'New York Office'.
Under the 'Reader' section, the 'Reader' dropdown is set to 'Reception - IN'. The 'Mode' dropdown is set to 'Locked' and is highlighted with a blue box.

18. As with the first macro, multiple action types need to be added - each one corresponding to the participating doors. Each action type will set the selected door back to being locked.

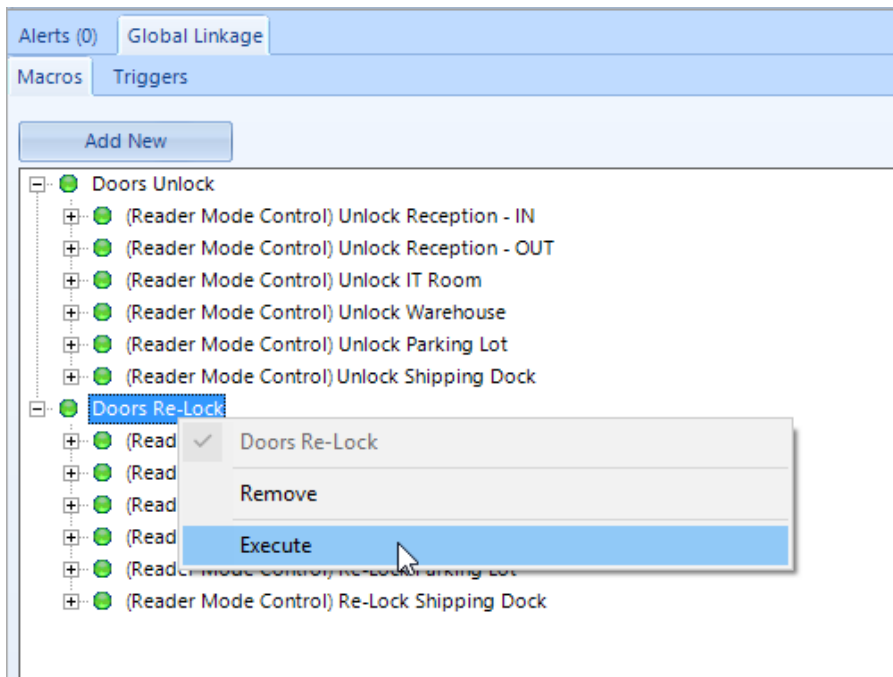


19. You can now right click on the first macro, select 'Execute' and the configured doors will unlock.

Global Linkage Setup Example



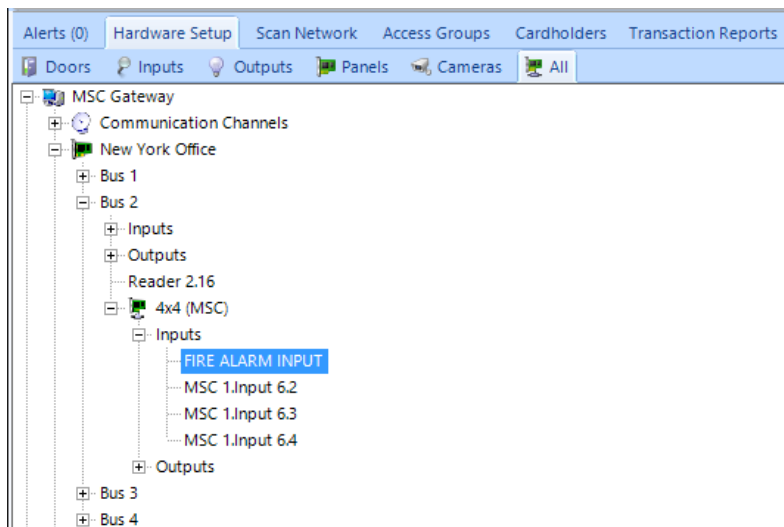
20. The doors will re-lock when you right-click and 'Execute' the second macro.



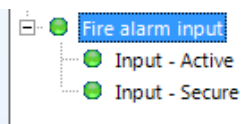
Global Linkage Setup Example

Trigger Setup

1. Ensure that an input has been labeled in the hardware tree for the purpose of the trigger.



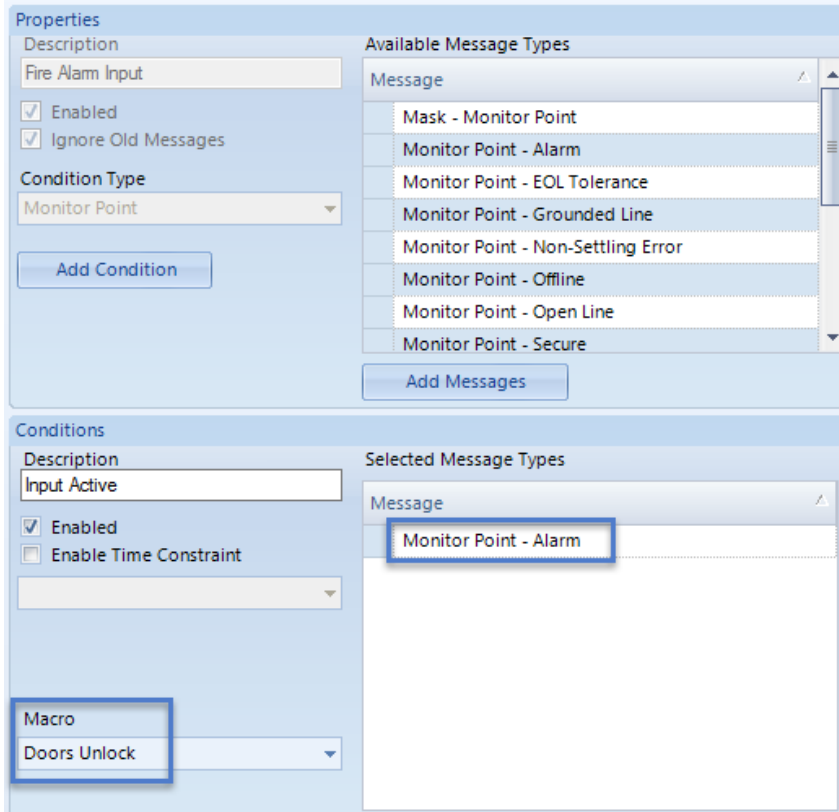
2. Two trigger conditions must now be defined; The first trigger condition will be the input going active, this will activate the macro that will unlock the selected doors.
3. The second trigger condition will be the same input going secure, which in turn will activate the second macro (to relock the doors again). Only one Global Linkage Trigger needs to be setup (Global Linkage triggers can have multiple conditions assigned to them).



Trigger Condition 1

1. Click Add New button from the triggers tab, under Description give it a name.
2. From Condition Type drop-down list select Monitor Point then click Add Condition button.
3. Highlight the New Condition and rename it, i.e Input - Active.
4. From the Available Message Types list locate the message type Monitor Point - Alarm, then click Add Messages button.
5. From the Macro drop-down list select the Doors Unlock macro, then save.

Global Linkage Setup Example



The screenshot displays the Global Linkage Setup interface, divided into two main sections: Properties and Conditions.

Properties Panel:

- Description:** Fire Alarm Input
- Enabled:**
- Ignore Old Messages:**
- Condition Type:** Monitor Point
- Add Condition:** Button

Available Message Types Panel:

- Message list:
 - Mask - Monitor Point
 - Monitor Point - Alarm
 - Monitor Point - EOL Tolerance
 - Monitor Point - Grounded Line
 - Monitor Point - Non-Settling Error
 - Monitor Point - Offline
 - Monitor Point - Open Line
 - Monitor Point - Secure
- Add Messages:** Button

Conditions Panel:

- Description:** Input Active
- Enabled:**
- Enable Time Constraint:**
- Macro:** Doors Unlock

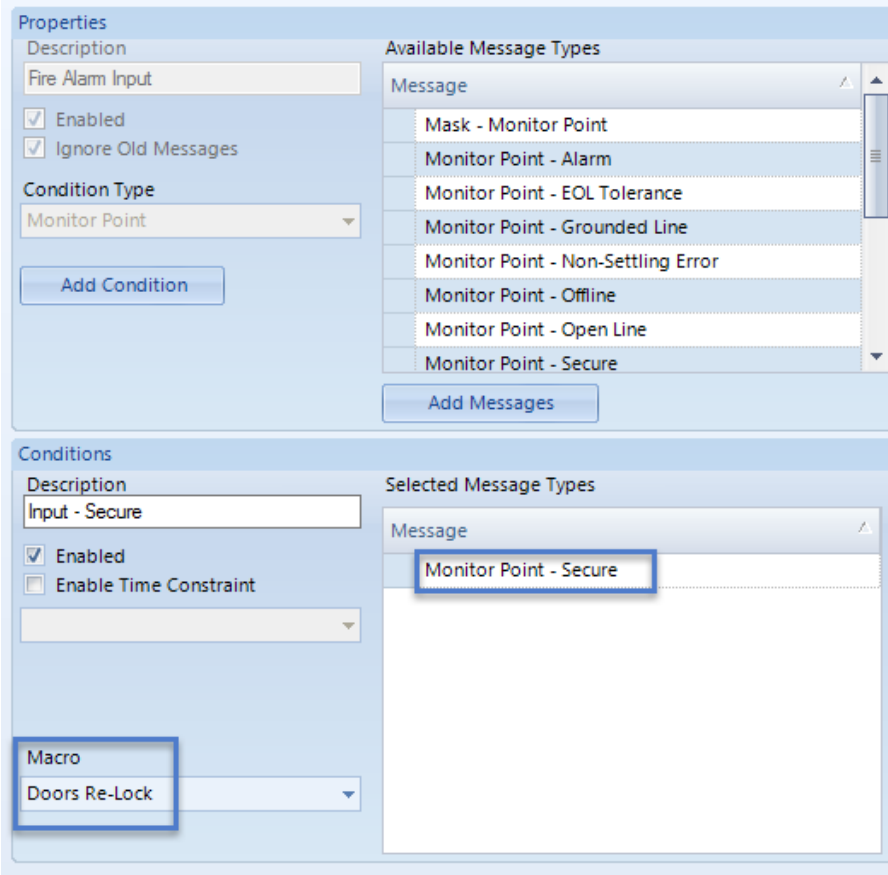
Selected Message Types Panel:

- Message list:
 - Monitor Point - Alarm

Trigger Condition 2

1. Highlight the same trigger and click Add Condition button.
2. Highlight the second New Condition and rename it, i.e Input - Secure.
3. From the Available Message Types list locate the message type Monitor Point - Secure, then click Add Messages button.
4. From the Macro drop-down list select the Doors Relock macro, then save.

Global Linkage Setup Example



The screenshot displays the configuration interface for a global trigger. It is divided into two main sections: Properties and Conditions.

Properties Section:

- Description:** Fire Alarm Input
- Enabled
- Ignore Old Messages
- Condition Type:** Monitor Point
- Available Message Types:** A list of message types including Mask - Monitor Point, Monitor Point - Alarm, Monitor Point - EOL Tolerance, Monitor Point - Grounded Line, Monitor Point - Non-Settling Error, Monitor Point - Offline, Monitor Point - Open Line, and Monitor Point - Secure.

Conditions Section:

- Description:** Input - Secure
- Enabled
- Enable Time Constraint
- Selected Message Types:** Monitor Point - Secure
- Macro:** Doors Re-Lock

5. Finally, locate the input point in the hardware tree. In the properties go to Monitoring >> Global Trigger and select the new trigger from the list.

Global Linkage Setup Example

General	
Description	FIRE ALARM INPUT
Enabled	Yes
Sensor Type	None
Security Level	None
Log Function	Do Not Log Mask Changes
Mask Schedule	None
Delay Settings	
Latch Mode	No Delays
Entry Delay	00h 00m 00s
Exit Delay	00h 00m 00s
Advanced	
Input Type	Monitor Point
Monitoring	
Use this Filter	Standard
Global Trigger	Fire Alarm Input
Video Camera	None
Video Composite	
Use Composite View	No
Camera Preset	0

- There's no need to do any kind of update because the configuration gets sent out to the hardware as soon as it is saved.
- Transaction will also appear in Live Events whenever the Global Linkage trigger conditions are met.

Live Events		
Drag a column header here to group by that column.		
TimeStamp (Controller)	Location	Message
21/04/2016 14:04:32	Parking Lot	Reader Mode Change - Lock
21/04/2016 14:04:32	IT Room	Reader Mode Change - Lock
21/04/2016 14:04:33	Shipping Dock	Reader Mode Change - Lock
21/04/2016 14:04:33	Warehouse	Reader Mode Change - Lock
21/04/2016 14:04:32	Reception - IN	Reader Mode Change - Lock
21/04/2016 14:04:32	Reception - OUT	Reader Mode Change - Lock
21/04/2016 14:04:33	Relock All Doors	Global Linkage Macro Executed
21/04/2016 14:04:33	FIRE ALARM INPUT	Monitor Point - Secure
21/04/2016 14:04:30	Reception - IN	Reader Mode Change - Unlocked
21/04/2016 14:04:30	Warehouse	Reader Mode Change - Unlocked
21/04/2016 14:04:30	Shipping Dock	Reader Mode Change - Unlocked
21/04/2016 14:04:30	Parking Lot	Reader Mode Change - Unlocked
21/04/2016 14:04:30	IT Room	Reader Mode Change - Unlocked
21/04/2016 14:04:30	Reception - OUT	Reader Mode Change - Unlocked
21/04/2016 14:04:31	Unlock All Doors	Global Linkage Macro Executed
21/04/2016 14:04:30	FIRE ALARM INPUT	Monitor Point - Alarm



Global Linkage Setup Example

Contact Keri Systems

Keri USA	Keri UK, Ireland, Europe
2305 Bering Drive San Jose, CA 95131	Unit 17 Park Farm Industrial Estate, Ermine Street Buntingford Herts SG9 9AZ UK
Telephone: (800) 260-5265 (408) 435-8400	Telephone: + 44 (0) 1763 273 243
Fax: (408) 577-1792	Fax: + 44 (0) 1763 274 106
Web: www.kerisys.com	Web: www.kerisystems.co.uk
E-mail: sales@kerisys.com techsupport@kerisys.com	E-mail: sales@kerisystems.co.uk tech-support@kerisystems.co.uk

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