

Using Multiple Hardware Platforms in Doors.NET

Application Note

Doors.NET is capable of running multiple concurrent hardware platforms. The ability to support multiple concurrent hardware platforms was introduced in Doors.NET v3.5.1.19. Support for the Entraguard, the PXL-G and the PXL-LC was introduced in Doors.NET v3.5.1.20.

Table 1: Supported Multiple Concurrent Hardware Platforms

Hardware Platform	Required Gateway
NXT	NXT
Mercury Powered NXT	MSC
PXL-500, PXL-G, PXL-LC	PXL
Entraguard	PXL
Mercury Security	MSC
ASSA Aperio	MSC
ASSA WiFi/POE	ASSA
Allegion	MSC

These hardware platforms are NOT supported by Doors.NET:

- PXL-510 (Alarm Panel)
- PXL-250

Depending upon the hardware platforms you choose you may be required to license additional gateways. A gateway is a software service component that manages communication between the field hardware and the application server. It receives instructions for the hardware type that it is responsible for servicing, formats that information for the hardware type, and sends it to the appropriate controllers. All transactions generated by the controllers are formatted by the gateway for transport to the application server. A gateway can reside on the same PC as the application server, on a different PC on the network, or across the Internet. The factory default for Doors.NET is to install one hardware gateway. There are additional charges for each additional hardware gateway and your license must be updated to enable each additional hardware gateway. Only one gateway of each hardware platform can be installed per PC.

When using multiple hardware platforms, the software limits itself to the lowest common denominator between the active hardware platforms for certain operating parameters. Also, certain features may be displayed, but may only apply to one specific hardware platform, and not to any other platforms. This document calls out the most obvious limitations. To use this document, identify the hardware platforms you are installing and then locate the lowest parameter value per hardware type. This will be the limitation imposed by Doors.NET.

Using Multiple Hardware Platforms in Doors.NET

Application Note

1.0 Time Schedules and Holiday Schedules

When using multiple concurrent hardware platforms Doors.NET allows each hardware platform/gateway type to access its total number of available time schedules. It does not limit time schedules to the lowest common denominator.

Table 2: Time Schedule Limitations

Gateway Type	PXL	NXT	Mercury Power NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/ POE	Ingersoll Rand
Time Schedules	32	64	255	255	255	255	255
Intervals per Day	4	12	12	12	12	1 ^a	12
Intervals per Week	28	50	84	84	84	n/a	84

a. Only one interval is allowed per time schedule.

Example – A system with both PXL and NXT gateways allows only the first 32 time schedules to be used by PXL controllers and all 64 time schedules to be used by NXT controllers. However, the first 32 schedules must follow the PXL rules.

When using multiple concurrent hardware platforms the software will limit the number of holiday schedules to the lowest value of the hardware platform/gateway used.

Table 3: Holiday Schedule Limitations

Gateway Type	PXL	NXT	Mercury Powered NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/ POE	Ingersoll Rand
Holiday Schedules	3	8	8	8	8	1	8
Holidays per Schedule	32	32	255 ^a	255 ^a	255 ^a	255 ^b	255 ^a
Intervals per Holiday	4	6	8	8	8	1	8

a. Total number that can be applied across all Holiday Schedules.

b. Holiday schedules are treated the same as time schedules. Applying a holiday schedule will subtract one time schedule.

Using Multiple Hardware Platforms in Doors.NET

Application Note

2.0 Access Groups

When using multiple concurrent hardware platforms Doors.NET allows each hardware platform/gateway type to access its total number of available access groups. It does not limit access groups to the lowest common denominator.

Table 4: Access Group Limitations

Gateway Type	PXL	NXT	Mercury Powered NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/ POE	Ingersoll Rand
Number of Access Groups	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited	unlimited
Access Groups per Cardholder per Controller	8 ^a	8	32 ^b	32 ^b	32 ^b	8	32 ^a

- a. PXL access groups can have 8 access groups per cardholder as long as the access groups do not cross each other or include the same controllers.
- b. The factory default is 8, but can be configured to up to 32.

Example – A system with both PXL and NXT hardware platforms/gateways allows only the first access group to be assigned per cardholder on PXL controllers, but it allows the first through eighth access groups to be assigned per cardholder on NXT controllers.

Using Multiple Hardware Platforms in Doors.NET

Application Note

3.0 Cardholders and Reader Types

When using multiple concurrent hardware platforms the software will allow each hardware platform/gateway to retain its maximum number of cardholders. However, each hardware platform/gateway has its own reader set it supports and these reader sets may not be compatible between hardware platforms/gateways. This means a cardholder may need multiple credentials, each credential unique to a hardware platform/gateway type.

Also, each credential/reader type may have unique features, options, and limitations that other credential/reader types do not have.

Table 5: Cardholder Limitations per Controller

Gateway Type	PXL	NXT	Mercury Powered NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/ POE	Ingersoll Rand
Number of Cardholders	65,535	48,000	100,000 to 145,000	1,000,000	100,000 to 145,000	2,400	100,000 to 145,000

Table 6: Anti-Passback Limitations

Gateway Type	PXL	NXT	Mercury Powered NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/ POE	Ingersoll Rand
Local APB	YES	NO	YES	YES	YES	NO	YES
Global APB ^a	NO	NO	YES	YES	YES	NO	YES

- a. Global APB requires Global Linkage - Hardware Control to be enabled in your license. This is not a standard feature for the supported hardware types.

Using Multiple Hardware Platforms in Doors.NET

Application Note

Table 7: Supported Reader Interfaces

Gateway Type	PXL	NXT	Mercury Powered NXT	Standard Mercury	ASSA Aperio	ASSA WiFi/POE	Ingersoll Rand
Keri-MS	YES	YES	YES	NO	NO	NO	NO
Keri-NXT	NO	YES	YES	NO	NO	NO	NO
Wiegand ^a	YES	YES	YES	YES	YES	YES	YES
Clock/Data	NO	NO	NO	YES	NO	NO	YES

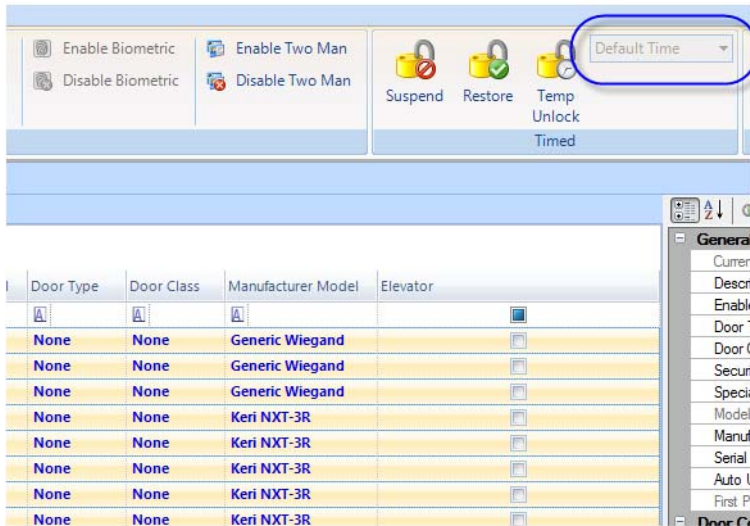
- a. The way different controller types handle the Wiegand bit format affects credential compatibility between the controller types:
- The 26-bit Wiegand format is handled the same between PXL, NXT, and Mercury Powered NXT controllers (when the NXT and Mercury Powered NXT controllers are using a RIM). It is handled differently by Standard Mercury controllers, and by ASSA Aperio, ASSA WiFi/POE, and Ingersoll Rand lock sets (which do not use a RIM). The difference is that the RIM reads the credential, verifies parity, then strips the parity bits off before sending the credential ID to the controller. The Standard Mercury controllers, and ASSA Aperio and Ingersoll Rand lock sets simply read the credential and send the entire 26 bits. If a PXL, NXT, or Mercury Powered NXT gateway is used with a Standard Mercury, ASSA Aperio, ASSA WiFi/POE, or Ingersoll Rand gateway, you have two options: 1) the 26-bit Wiegand credentials must be enrolled separately for each controller/lock set type, or 2) use the optional Credential Types menu to create a custom credential type that accommodates both data types. The Credential Types feature is not a part of the default Doors.NET license.
 - 37-bit HID Wiegand is not compatible across Wiegand reader interfaces as each reader interface handles the 37-bit value differently resulting in being seen as a different number between interfaces. This means all 37-bit Wiegand credentials must be enrolled separately for each controller type.

Using Multiple Hardware Platforms in Doors.NET

Application Note

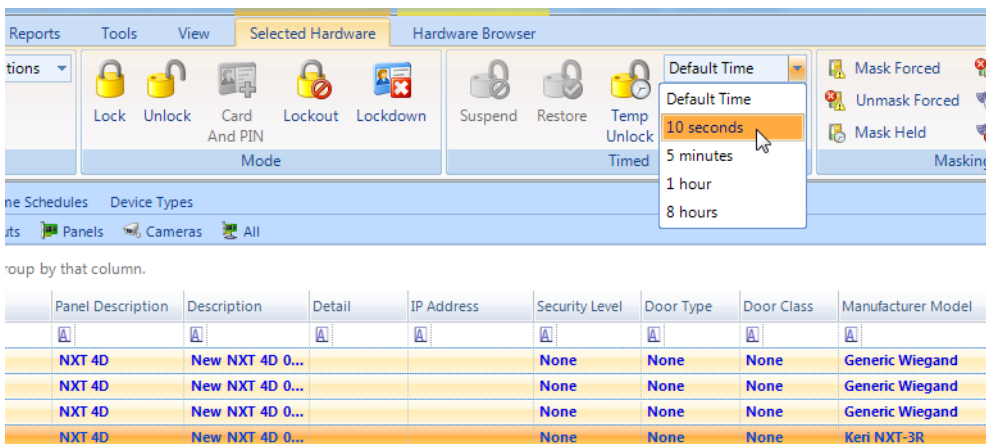
4.0 Temp Door Unlock

Since each door type has a different set of temp unlock time parameters, the software user interface will not allow you to select a temporary unlock time from the pull-down menu (the field is grayed out).



If you click the Temp Unlock icon all doors will be temporarily unlocked for their default strike times.

If you select an individual door or a set of doors all the same type, the pull-down menu becomes active and allows you to set an unlock time per the parameters allowed by that reader type.



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Using Multiple Hardware Platforms in Doors.NET

Application Note

5.0 Global Unlock/Lock and Situation Manager

The Global Unlock/Lock features used by PXL controllers in Doors32 are also available in Doors.NET. These features use dedicated inputs on the master PXL controller to either unlock or lock all online, functioning doors in the network.

Doors.NET also has a Situation Manager feature providing additional capabilities for controllers in global unlock/lock applications. This feature provides greater control and flexibility in how Global Unlock/Lock is implemented, including varying restriction levels of lock and unlock, and the ability to assign/unassign specific doors to the global unlock/lock commands.

Situation Manager features are fully supported by the following controllers:

- NXT
- Mercury Powered NXT
- Standard Mercury
- Ingersoll/Rand Schlage
- PXL with firmware v8.06.09 or greater (all PXL controllers on the network must have this firmware revision or greater)

Situation Manager features are partially supported by the following controllers:

- ASSA Aperio – only supports Lock and Remote Lock Out
 - The command can take up to one minute to process
 - The unit cannot perform a lock down
- ASSA WiFi/POE – only supports Remote Unlock/Lock
 - Applies only to lock sets configured as Always On
- Entraguard
 - Entraguard firmware only supports the 'Global Lock Only' command. All the other, advanced Global Lock commands are treated as a standard Global Lock Only command (Global Lockout, Global Lockout allow Total Access, Global Lockdown, Global Lockdown allow Total Access). This means you should not use an Entraguard controller as a master unless there are only Entraguard units on the network as the advanced Global Lock commands will not be passed on to the other units in the network.
 - A Global Unlock command initiated by hardware reacts across all units nearly instantaneously. If initiated through software via the Situation Manager each unit is unlocked one-at-a-time. It can take up to 30 seconds per unit for the unlock command to be completed.
 - Entraguard firmware does not issue an event following a lock command. Currently, the only way to see Entraguard unit locked status is to request status from the unit. Entraguard firmware does issue an event following an unlock command.

6.0 Miscellaneous Feature Differences Between Hardware

- The Local Linkage feature is not yet available for PXL controllers.

Using Multiple Hardware Platforms in Doors.NET

Application Note

7.0 Contact Keri Systems

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