



AN-055
Protégé Virtual Door
Programming

PUBLICATION INFORMATION

This application note covers the use of the protégé system to perform a specific function and may be used in conjunction with other publications. Specifications may change without notice, for updates visit the Integrated Control Technology website at www.integratedcontroltechnology.com. No other hardware was used to prepare this application note and will not affect the result of the application using the programming information presented.

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PROTÉGÉ SYSTEM

Introduction

The Protégé System is a powerful integrated alarm and access control management system designed to provide integration with building automation, apartment complex control and HVAC in one flexible package. Communicating through a proprietary high speed protocol across an encrypted RS-485 network using modular-based hardware design, system installers have the flexibility to accommodate any installation from small or large, residential or commercial.

Application Note Information

The following application note describes the configuration settings and information about programming a virtual door using a programmable function. Virtual doors allow an access pointed to be monitored without the use of a reader expander.

Features

- Controlled Lock PGM
- Request to Exit (REX) and Door Sense inputs
- Door Left Open and Forced Door Zones
- Alarm PGM

Firmware Version

The following version of controller firmware is required as a minimum.

Version 2.02.2958 Protégé Integrated System Controller

All builds of software for the version numbers above support the features and programming settings contained in this application note.

ZONE PROGRAMMING

Introduction

The Virtual Door uses normal zones in the Protégé System as inputs to the programmable function. All of these doors need to be programmed and placed in an armed area for the Virtual Door to operate.

Request to Exit Zone

The Request to Exit (REX) Input is connected to the Virtual Door's REX Zone. When this zone is closed the Lock PGM is activated and the door can be opened for the Max Open time when no alarms being generated.

This zone should be configured as a digital zone, therefore disable the "EOL Resistor on zone input" option.

If a Normally Closed REX button is used the zone should inverted option should be set for the zone to ensure pushing the button will generate the REX event.

Door State Zone

The Door Position input is connected to the Door State Zone. This should be configured so that when the door opens the zone opens. It may be necessary to invert the zone input to ensure this operation.

This zone should be configured as a digital zone, therefore disable the "EOL Resistor on zone input" option.



All REX and Door State Zones need to be placed in an area that is ARMED as the Virtual Door is triggered from the zone open and closed events. It is recommended to place these zones in an area that has the Re-Arm option enabled to ensure that area is always armed.

FUNCTION PROGRAMMING

Overview

The following programming screens will show you how to configure a virtual door using a programmable function.

Keypad Programming

Programming the Virtual Door Programmable Function is achieved by accessing the Functions menu on the LCD keypad.

Enter user
code: *****

Login to the LCD keypad using the installer login user code or a suitable code that has been programmed with the Menu 4 access to the installer menus and related options.

Function to
modify: FN001

Go to the functions menu by pressing [MENU, 4, 8, 4]. The display will show you the first programmable function in the system. Select a function that has not been programmed.

FN001 State
Halted

Press the [ENTER] key to display the state of the function. To make changes to the programming the function must be halted. If the function is running press [2] to halt it. Press [ENTER] to move to the function type.

FN001 Func Type
Virtual Door

Press the [1] key to scroll through the available function types. Select "Virtual Door" by pressing [ENTER].

FN001 Func Mode
Normal

Press the [ENTER] key to select the "Normal" mode for the programmable function to operate.

FN001 REX
Zone CP001:01

Program the zone the Request to Exit (REX) input is connected to (see Zone, PGM and PGM Group Entry on page 7). When this zone closes a Virtual Door REX event will be generated, the door will unlock and the door state input will be ignored for the Max Open period of time. Press [ENTER] to program the Door State Zone.

FN001 Door State
Zone CP001:02

Program the zone the Door State input is connected to (see Zone, PGM and PGM Group Entry on page 7). This zone will follow the state of the door, so when the zone will be closed when the door is closed. Press [ENTER] to program the Left Open Zone.

FN001 Left Open
Zone ZX008:01

Program the zone that will be controlled when a Door Left Open event occurs. When the door is left open longer than

the Max Open time the zone is opened, when the door is closed again the zone will close. This zone should be on a module that is not registered in the system to ensure that this function has complete control of the state of the zone.

**FN001 Forced
Zone ZX008:02**

Program the zone that will be controlled when the door is Forced Open. This zone should be on a module that is not registered in the system to ensure that this function has complete control of the state of the zone.

**FN001 Unlock
time: 005 secs**

Enter the number of seconds the Lock PGM will be activated for after the REX has been pressed.

**FN001 Max Open
time: 045 secs**

Enter the Max Open time. This is the number of seconds the door can be left open before the Left Open zone will be opened.

**FN001 Door Lock
pgm: CP001:01**

Enter the PGM that is activated when the REX is pushed. This does not need to be programmed for the Virtual Door to operate.

**FN001 Door Lock
pgm: CP001:01**

Enter the PGM that is activated when the Virtual Door is in an Alarm state. Depending on the options set (see the next programming window) the Alarm PGM will be activated when either a Door Left Open or Forced Door Event occurs. The PGM remains on until the door has been closed.

**FN001 Misc
[123*56**]**

There are a number of options that can be set for the Virtual Door, these are programmed in the final screen. What each of these options do is detailed below.

Option 1 – Alarm on Door Left Open

- ☒ The Alarm PGM will be activated when the door is left open beyond the Max Open time.
- ☒ The Alarm PGM is not activated.

Option 2 – Pulse Left Open Alarm

- ☒ The Alarm PGM will be activated with a pulse time on and off.
- ☒ The Alarm PGM will be turned on normally.

Option 3 – Alarm on Door Forced

- ☒ The Alarm PGM will be activated when the door is forced open.
- ☒ The Alarm PGM is not activated.

Option 4 – Pulse Forced Door Alarm

- ☒ The Alarm PGM will be activated with a pulse time on and off.
- ☒ The Alarm PGM will be turned on normally.

Option 5 – Log Left Open Zone Event

- ☒ Enabled the zone events when the door is left open.
- ☒ Disables the zone events from being generated.

Option 6 – Log Forced Zone Event

- ☒ Enabled the zone events when the door is forced open.
- ☒ Disables the zone events from being generated.

Option 7 - Reserved

- ☒ Reserved.
- ☒ Reserved.

Option 8 - Reserved

- ☒ Reserved.
- ☒ Reserved.

ZONE, PGM AND PGM GROUP ENTRY

Zone, PGM and PGM Group Entry is done by selecting the module type and then the address and actual Zone or PGM number on the device. For example to program the second lock output on the fourth reader expander you would enter RD004:02 where the RD is entered using the ascii mode similar to the text entry and the 004 and 02 are entered using normal decimal mode entry.

In the following example we will program zone 6 on the Zone Expander at address 003 to be the REX Zone for the Virtual Door.

FN001 REX
Zone - -000:00

In the above screen the default value for a zone is shown this is --000:00. To default the Zone or PGM entry press the **[DISARM]** key or to recall the currently programmed value press the **[ARM]** key. Pressing the **[9]** key 4 times will put a 'Z' in the first location. Press the **[→]** arrow key to move to the next location.

FN001 REX
Zone Z-000:00

Pressing the **[9]** key twice will show the 'X' on the screen, move the cursor to the right using the **[→]** key.

FN001 REX
Zone ZX003:06

Complete the entry by pressing **[0]**, **[0]**, **[3]** then the zone number by pressing **[0]** and **[6]** for zone 6.

FN001 Lock
pgm: PG004

To enter a PGM group complete the same procedures as above however use the PG for the prefix in the module type, the screen will change to only have 3 digits allowing the PGM group to be entered. See below for an example of PGM group 4 at the same location as above.

INFORMATION

Introduction

Application notes are provided as is without any implied warranty or intended use and are written by Integrated Control Technology as an aid in programming and connecting devices to the Protégé System.

Contact

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