AN-273

Ademco Vista Integration with Protege GX

Application Note

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Contents

Introduction

Protege GX integration with Ademco Vista control panels allows you to monitor and control legacy installations based on 128BP and 250BP panels. Each zone and partition in the Ademco system can be mapped to a Protege input and area, which can be viewed and controlled as part of the Protege GX system.

This application note contains the requirements, physical configuration and programming steps for this integration.

Prerequisites

Controller Requirements

Controller	Firmware Version	Notes
PRT-CTRL-DIN	2.08.919 or higher	Only controllers with RS-485 functionality on the reader ports support this integration. See more below.
PRT-CTRL-DIN-1D		

Important:

Connection via RS-485 is only supported with hardware revisions of the controller that are equipped with the added RS-485 reader functionality on the reader ports. This is easily determined by checking the reader ports on the front panel of the controller. Hardware revisions that are equipped with RS-485 reader functionality have the NA and NB labels beneath the D0 and D1 labels, as shown below.

Earlier revisions of the controller hardware that do not have the NA and NB labels (as in the example below) do not have the added RS-485 reader functionality and do not support this integration.

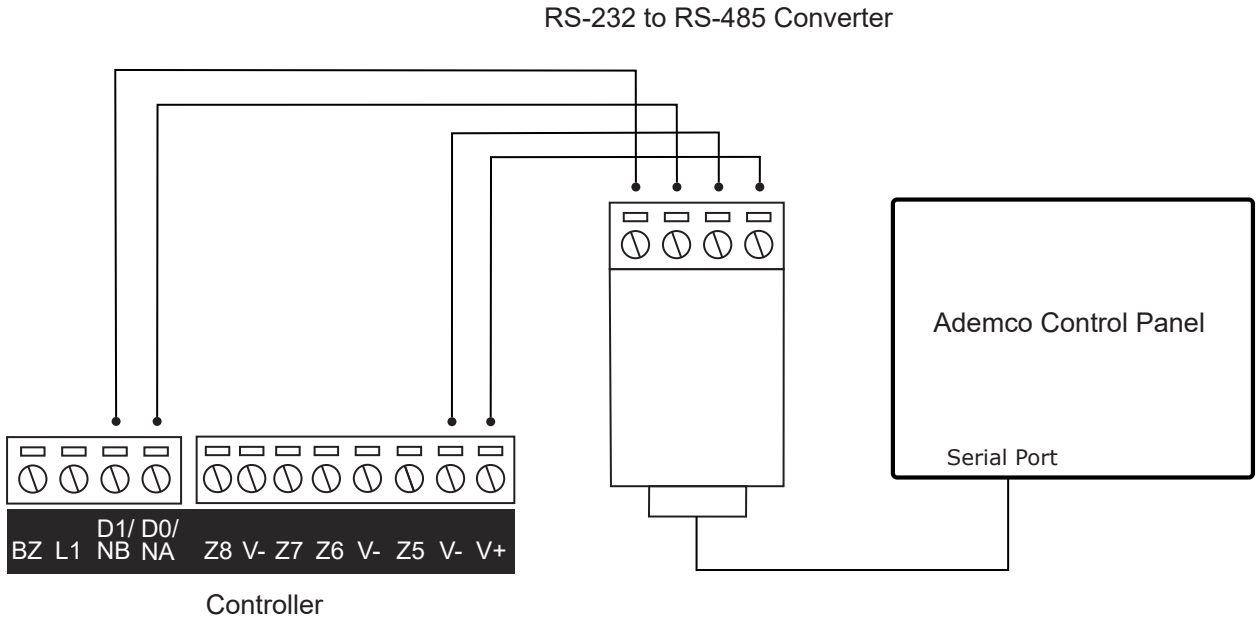
All one-door controllers come equipped with RS-485 reader functionality.

Ademco Requirements

This integration supports Ademco VISTA-128BP/VISTA-250BP panels set to communicate at 1200 Baud only.

Physical Connection

For this integration you must connect one of the controller's RS-485 reader ports to the serial port on the Ademco control panel, using an RS-232 to RS-485 converter.



Ensure that the converter is configured to operate at 1200 Baud.

Operation

When this integration is configured the Ademco panel sends the status of areas (partitions) and zones (inputs) to the Protege GX controller. This allows you to view the areas and inputs within Protege GX as if they were part of the Protege GX system.

The Protege GX controller has control over the areas (partitions) in the Ademco system. These areas can no longer be armed/disarmed from Ademco keypads. However, you can arm/disarm the areas as normal from Protege keypads and the client software.

Programming Steps

This section outlines how to program the Ademco Vista integration service, map inputs and areas to Ademco zones and partitions, and enable the integration on the controller's reader port.

Configuring the Ademco Vista Service

This integration uses a special integration service, which must be configured by commands in the controller programming.

In the controller's **Commands** section (**Sites | Controllers | General**), enter the following commands:

Command	Description
`Ademco = true`	Set this command to `true` to enable the Ademco Vista integration service, or `false` to disable it.
`AdemcoUserCode = XXXX`	**XXXX** is the 4-digit user code that will be used to arm/disarm the Ademco partitions.
`AdemcoUserNumber = x`	**X** is the Ademco user number that the defined user code belongs to. This command can be omitted when integrating with an Ademco panel that does not require user numbers.
`AdemcoPartition = true`	Set this command to `true` if the Ademco panel has multiple partitions. When this command is enabled, each Protege GX area used for this integration must be mapped to a specific partition number (see next page). Set this command to `false` if the Ademco panel does not use partitions.
`AdemcoDebug = false`	Set this command to `true` to enable logging of debug messages from this integration service. This may be used for initial setup and troubleshooting, but it is recommended to set this command to `false` during normal operation to prevent excessive accumulation of events.

Configuring the Onboard Reader Expander

The controller is connected to the Ademco Vista panel via either of the reader ports belonging to its onboard reader expander (see previous page).

The controller's onboard reader expander needs to be configured to communicate with the Ademco Vista panel.

1. Navigate to **Expanders | Reader expanders**.
2. Expand the **Commands** section and enter one of the following commands:

Command	Description
`PortOne = 11`	Enables the Ademco Vista integration on reader port 1.
`PortTwo = 11`	Enables the Ademco Vista integration on reader port 2.

3. Click **Save**.
4. Wait for the changes to be downloaded to the controller, then right click on the reader expander record and click **Update module**.

Adding the Input Expanders

Each zone on the Ademco panel must be mapped to an equivalent Protege GX input.

This is based on a predefined reference structure, based on the **Physical address** of the input expander which the inputs are assigned to. The mapping is outlined in the table below:

Input Expander Physical Address	Ademco Zone Mapping
1	1-16
2	17-32
3	33-48
...	...
8	113-128
...	...
16	241-250

This means that for a 128BP you must add 8 input expanders with 16 inputs each. For a 250BP you must add 16 input expanders with 16 inputs each (excluding the final 6 inputs of the last expander).

To add the input expanders in Protege GX:

1. Navigate to **Expanders | Input expanders**.
2. Select the correct **Controller** in the toolbar, then click **Add**.
3. Enter a relevant **Name**, such as Ademco Vista Zones 1-16.
4. Enable the **Virtual module** option.

   This ensures that the controller will not generate a health status message when this module does not come online, and prevents a physical module from being programmed at this address.
5. Set the **Physical address** based on the table above.
6. Click **Save**.
7. In the popup window, disable **Add trouble inputs**.
8. Click **Add now**.
9. Repeat to create all of the input expanders required for this integration. The associated inputs are added automatically.

Configuring the Areas

In partition mode, the Ademco panel can support up to 8 partitions. One area must be programmed and mapped for each partition. If partition mode is not enabled, you can program a single area to represent the entire Ademco system.

1. Navigate to **Programming | Areas**.
2. Add a new area and give it a descriptive **Name** (e.g. Reception - Ademco Partition 1).
3. In the **Configuration** tab, expand the **Commands** section and enter the following commands:

Command	Description
`AdemcoArea = true`	Enter this command to associate this area with the Ademco integration.

Command	Description
`AdemcoPartition = X`	**X** is the number of the Ademco partition that this area is mapped to. This command is not required if the Ademco panel is not configured to operate in partition mode.

4. Click **Save**.
5. If partition mode is enabled, repeat to create the other partitions on the Ademco panel.

Programming the Inputs

Each input on the input expanders programmed above corresponds to a zone in the Ademco system. To replicate the operation of the Ademco system you must program each input into the relevant area which represents its Ademco partition.

1. Navigate to **Programming | Inputs**.
2. Select each input created above, and give it a descriptive **Name** (e.g. Reception PIR - Ademco Zone 1).
3. In the **Areas and input types** tab, assign an **Area** corresponding to the partition that the Ademco zone is assigned to.
4. Assign an **Input type** corresponding to the zone type in Ademco.
5. Click **Save**.
6. Repeat for all required inputs.
7. To enable the input types, fully disarm and rearm the areas.

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