Controlling Elevator Access Using KT Controllers

Objective

This document, aimed at EntraPass system installers, provides prerequisites and simplified instructions on how to setup and use a KT-200 or KT-300 door controller to control access to elevator cabs using *EntraPass Special Edition*, *EntraPass Corporate Edition* and *EntraPass Global Edition*.

Requirements

- EntraPass access control system
- One KT-200 or KT-300 door controller for every two elevator cabs to be controlled
- Serial numbers for both controllers and extension modules
- KREB-8 relay extension modules (for use with a KT-200 controller) or
- KT-4216 or KT-4204 relay extension modules (for use with a KT-300 controller)
- Belden #9553 cable installed in the elevator cabs (by qualified elevator servicing personnel) running to the elevator control system
- Building manager telephone number
- Elevator service technician telephone number

The following table lists the floor capacity and suggested configurations using currently available relay extension modules.

For use with KT-200		
REB-8		
1 cab	8 floors	1 REB-8
1 cab	16 floor	2 REB-8
2 cabs	8 floors	2 REB-8
2 cabs	16 floors	4 REB-8

For use with KT-300		
KT-PC4204		
1 cab	4 floors	1 KT-PC4204
1 cab	8 floors	2 KT-PC4204
1 cab	12 floors	3 KT-PC4204
1 cab	16 floors	4 KT-PC4204
1 cab	20 floors	5 KT-PC4204
2 cabs	4 floors	2 KT-PC4204
2 cabs	8 floors	4 KT-PC4204
2 cabs	12 floors	6 KT-PC4204
2 cabs	16 floors	8 KT-PC4204
2 cabs	20 floors	10 KT-PC4204
KT-PC4216		
1 cab	16 floors	1 KT-PC4216
1 cab	32 floors	2 KT-PC4216
1 cab	48 floors	3 KT-PC4216
1 cab	64 floors	4 KT-PC4216
2 cabs	16 floors	2 KT-PC4216
2 cabs	32 floors	4 KT-PC4216
2 cabs	48 floors	6 KT-PC4216
2 cabs	64 floors	8 KT-PC4216

About Elevator Control

The use of KT controllers to manage access to elevator cabs helps maximize returns on your EntraPass access control system investment. For example, tenants of a multi-story office building can share the operating cost of the hardware when using this feature to control access to their floor.

Most access control systems are designed to control access through doors. Doors unlock in compliance with the cardholders' privileges when their card is presented to the door reader. Therefore, access to specific office areas or departments can be restricted to employees with appropriate security clearance.

With a reader installed in an elevator cab, each floor becomes a "virtual door". This allows building managers or business operators to limit access to specific floors by defining access privileges onto access cards. For example, if a cardholder requests the 4th floor instead of the 5th floor, the system will not grant access until the elevator system confirms that the cardholder is entitled to access the 4th floor. The cardholder can only access floors that are part of the access privilege(s) programmed on his/her card.

Configuring Elevator Control Using EntraPass

The following pages describe the procedure required to configure the pre-installed KT hardware for elevator control as well as to program access levels on user access cards. This procedure takes the form of an example in which *EntraPass Corporate Edition* will be used to setup both controllers compatible for use in this application. The procedure will be divided in three major steps.

- Step A involves configuring a KT-200 door controller with two REB-8 relay extension modules for control of two elevator cabs over eight floors;

- Step B involves configuring a KT-300 door controller with four KT-4204 relay extension modules for control of two elevator cabs over eight floors;

- Step C accesses logical component screens (schedule, access level, cards) to define cardholder access into the EntraPass system.

Note: Keep in mind that the upcoming instructions apply to all three editions of the EntraPass software.

Step A: Setting up the KT-200 environment with REB-8 extension modules

1. From the EntraPass workstation user interface, go to the **Devices** tab and select **Controller** to display the controller definition window.
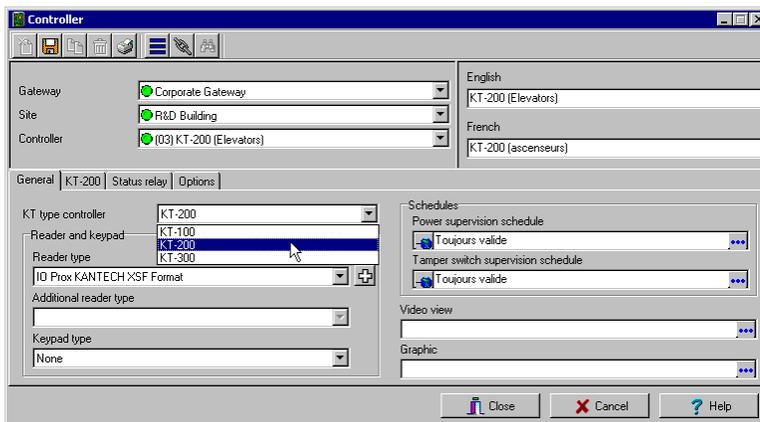
2. If you are using *EntraPass Corporate Edition* or *EntraPass Global Edition*, first select the gateway connected to the site containing the KT elevator controller.
3. Select the site containing the KT-200 elevator controller.
4. Scroll the **KT Type Controller** list and select KT-200.
5. Leave all other parameters unchanged for now and click the **KT-200** tab.
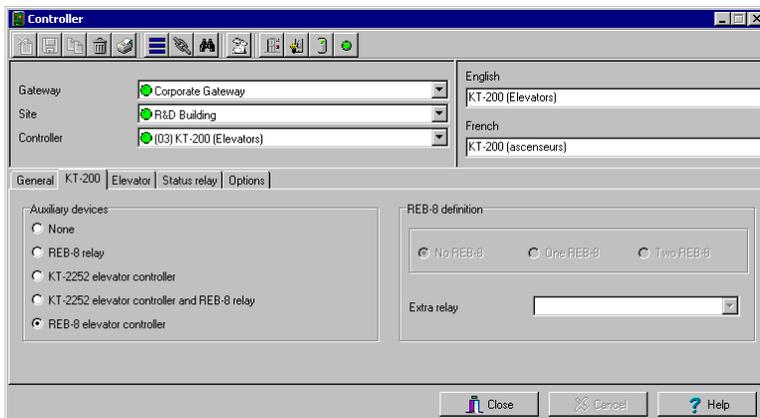
6. In the list of **Auxiliary Devices**, click the **REB-8 Elevator Controller** button then click the **Elevator** tab to enable the installed relay extension modules.
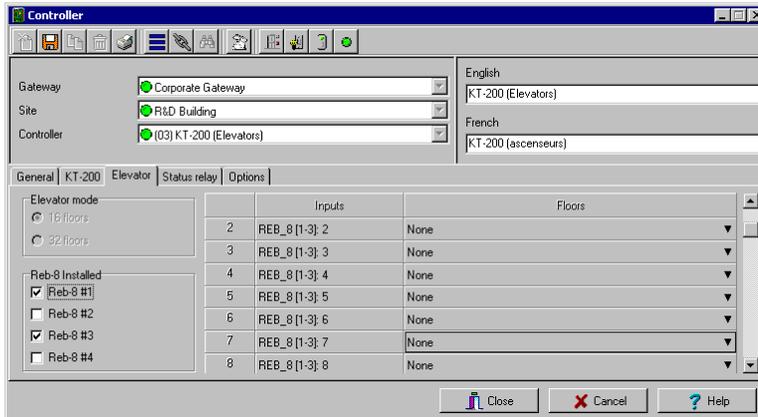
7. Check **REB-8 #1** (assigned to elevator cab #1) and **REB-8 #3** (assigned to elevator cab #2). Click **Close** to save your settings. You will return to the controller definition window later.

Step B: Setting up the KT-300 environment with KT-4204 Combus modules

Note: If you plan to use the KT-300 controller with the KT-PC4216 extension module, remember to assign individual relays to each output

8. From the EntraPass workstation user interface, go to the **Devices** tab and select **Controller** to display the controller definition window.
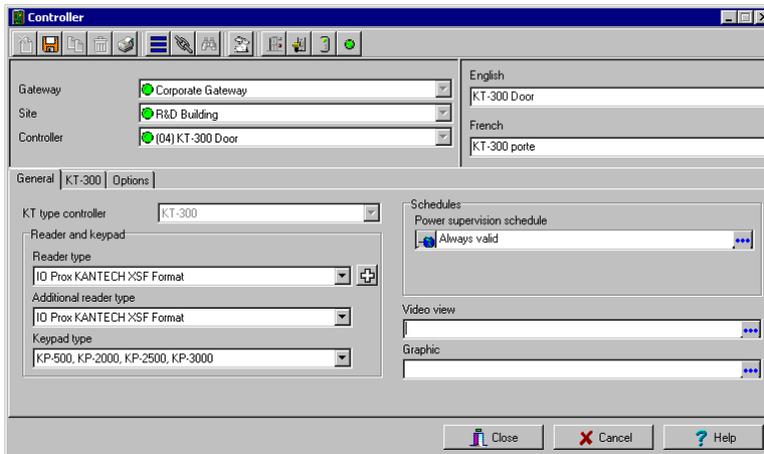
9. If you are using *EntraPass Corporate Edition* or *EntraPass Global Edition*, first select the gateway connected to the site containing the KT elevator controller.

10. Select the site containing the KT-300 elevator controller.

11. Scroll the **KT Type Controller** list and select KT-300 if not already active.

12. Leave all other parameters unchanged for now and click the **KT-300** tab.
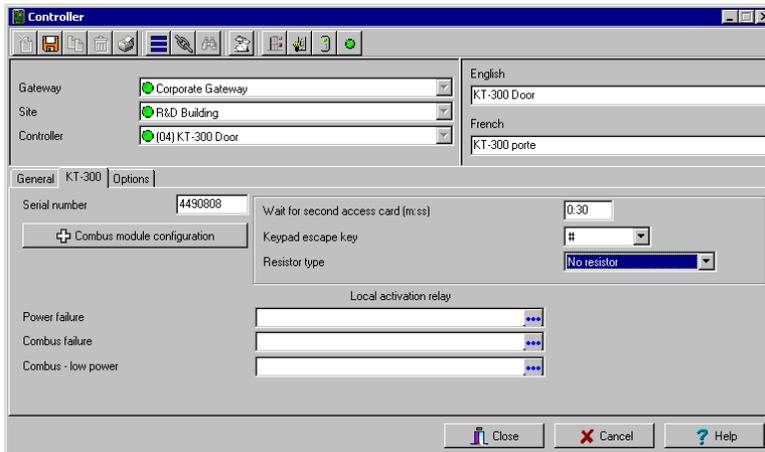
13. Type the 7-digit serial number of the KT-300 controller.

14. Click the **Combus module configuration** button to define the KT-4204 module into the EntraPass system. Undefined Combus terminals are identified by red bullets. Once a module has been defined, the bullet turns green.
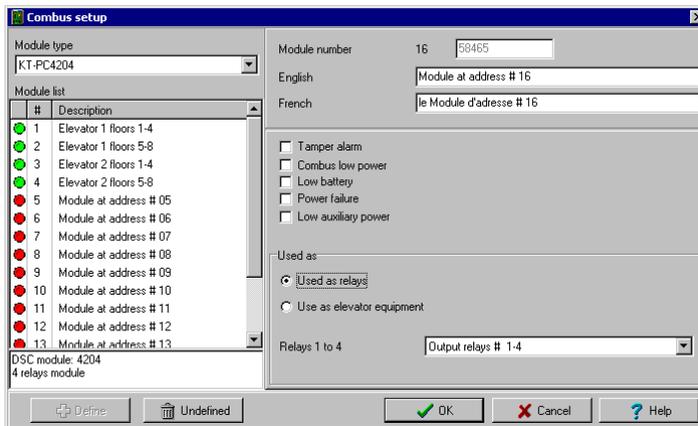
15. Use this window to configure the first of four KT-4204 Combus modules:

   a) Click the **Module type** pull-down list and select **KT-4204**.

   b) Select **Module at address #1** as the first item in the **Module** list and click the **Configure** button to bring up the serial number popup window.

   c) Type the 7-digit serial number for this extension module then click **OK**.

   d) Back to the Combus setup window, go to the language fields and rename the module with a significant name.

   e) Click **Use as elevator equipment** to activate the list of configurable relays. For the first Combus module (out of 4), select **Elevator door #1 outputs #1-4**.

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f) Repeat steps b to d for the remaining three KT-4204 modules then click **OK** to exit the Combus setup window.

16. Back to the controller definition window, click **Close** to save your settings. You will return to this window later.

Step C: Defining Logical Components

17. From the EntraPass workstation user interface, go to the **Definition** tab and click the **Floor** button.
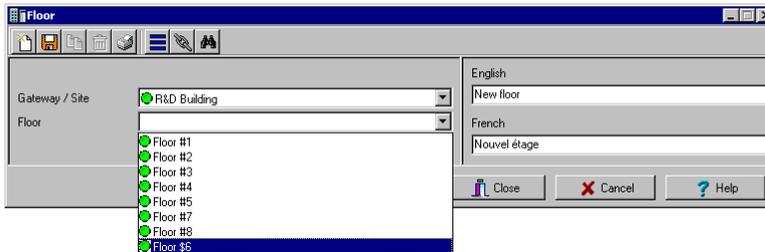
18. Click the **New** tool button and type a name to identify the first floor accessible by elevator. Click **Save**. Repeat this step for all other floors in the building. This example makes use of 8 floors.

19. Once all floors have been defined, click **Close**. Back to the EntraPass user interface, go to the **Groups** tab and select the **Floor Group** button.
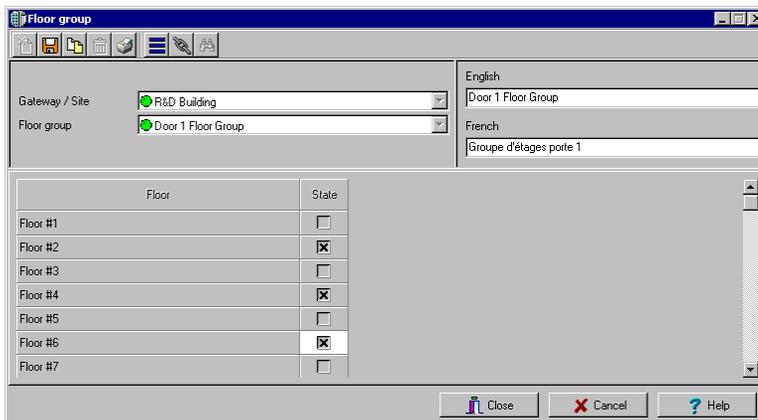
20. First select the **Gateway / Site** hosting the KT-200 or KT-300 elevator controller. Then click the **New** tool button 📄 and type a name for the first floor group which sets the floors accessible by elevator cab #1.

21. Scroll the floor list and check the floors which will be accessible as part of this group. Click **Save** 💾 when done. In this example, only even floors will be accessible by elevator #1 (door 1).

22. Return to the controller definition window (**Devices → Controller → Elevator**). The following screen captures show Elevator tab window contents for both controller instances.
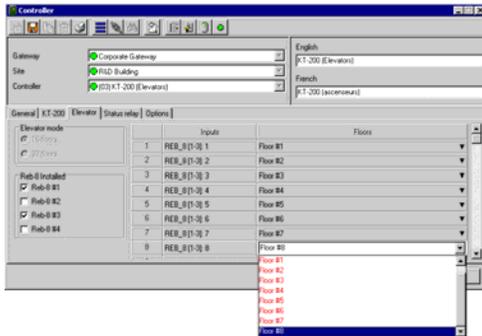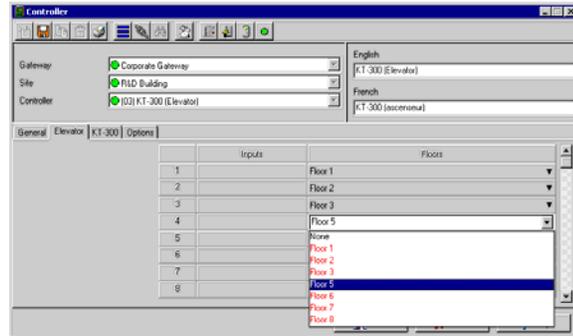
KT-200   **KT-300**

23. As was set earlier during hardware configuration, our setup (2 elevators over 8 floors) contains 16 independent relays and this applies to both KT-200 and KT-300 controllers. Click on the first available relay input and assign the first floor defined earlier. Repeat this step for every other relay you plan to use. Once all relays have been assigned, click **Close** to save your settings.

24. Back to the EntraPass user interface, go to **Devices**, then select **Door** to bring up the door definition menu.
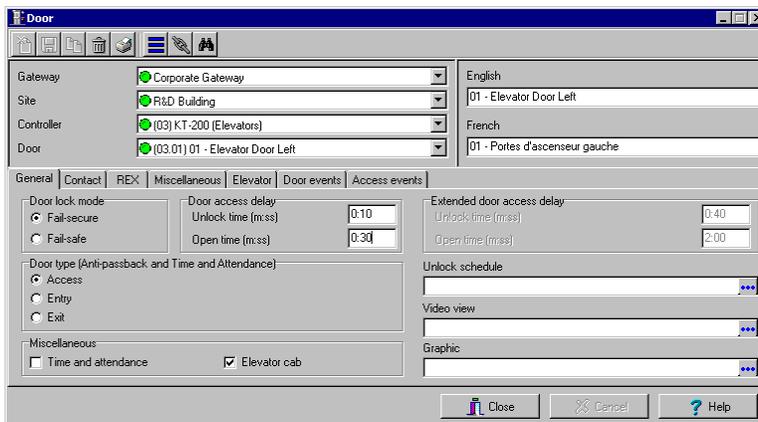
25. Under the **Door** drop-down list, select the first of two doors. Define this door as an elevator cab door by checking **Elevator cab**. Click Save 💾 then repeat this step for the second elevator cab door. Click **Close** to save.

26. Back to the EntraPass user interface, go to the **User** tab and select **Access Level**.

27. Near the end of the setup process, you may now enable access control on both Elevator door #1 and Elevator Door #2. To do so, simply assign one of the default schedules and a floor group to each elevator door.

Note: you may also access the schedule definition window (**Definition** tab → **Schedule** button) and customize a schedule of your own for enhanced flexibility throughout days, nights, holidays, etc.

28. Once both elevator doors have been assigned access level parameters, click **Close** to return to the EntraPass user interface.

29. Finally, go to the **User** tab and select **Card**. This step will allow system operators to exercise tighter access control over the configured floors by specifying which users (or groups of users) will be granted access.
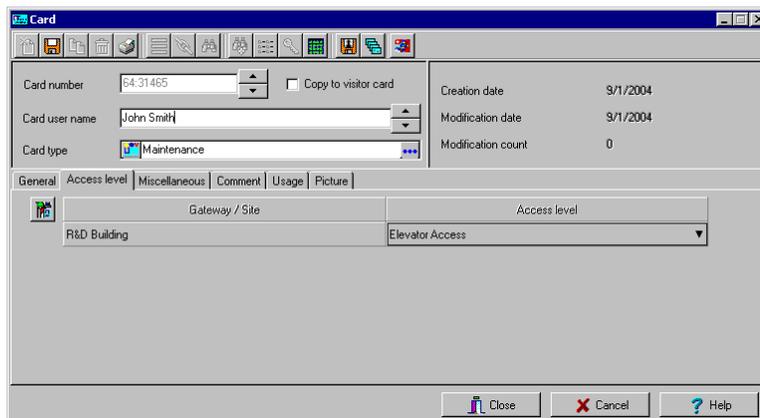
30. As part of the card definition or review process, click the **Access level** tab and assign the access level defined earlier (step 27) to this card definition.