

## **Creating Badge Keys with First-in Unlock Rules**

You can create a badge that, when presented to the appropriate reader, will unlock a building, or a part of a building. The same badge can be used to unlock other buildings as well. Similarly, a badge can be created that will relock the buildings.

These configurations involve the creation of First-in Unlock rules, special access levels, reader groups, portal groups, and unlock time specifications. We assume that you have completed the setup of readers, inputs, outputs, and portals.

There are several possible use cases here.

1. Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived. They want only one specific reader to be used for this function. This will require creating two badges, one for Unlock and one for Relock.
2. Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived. They want only one badge to function for both Unlock and Relock. This will require using different readers for Unlock than are used for Relock.
3. Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived and they want a different group of doors to unlock after business hours when certain badge holders arrive. This requires two portal groups with different unlock time specifications.

We cover each of these cases separately below.

## Case 1.

Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived. They want only one specific reader to be used for this function. This will require creating two badges, one for Unlock and one for Relock.

### Create the portal group

These are the portals to be unlocked during business hours as long as certain badge holders have arrived.

1. Select **Setup : Access Control : Portal Groups**.
2. Create **Portal Group A** for the portals in the building that should be unlocked.

### Create the time specification for unlock and assign it to the portal group

1. Select **Setup : Time : Time Specs**.
2. Create a time spec for 9 AM to 5 PM. (9:00 – 17:00)
3. Select **Setup : Access Control : Portal Groups** and assign the time spec to **Portal Group A** as an **Unlock Time Spec**.

**NOTE:** The portals in the group will unlock if the time spec is valid.

### Create a reader group

This is the specific readers designated for valid reads of the unlock and relock access levels. These could be one or many readers.

1. Select **Setup : Access Control : Reader Groups**.
2. Create **Reader Group A** with the readers that must be used to unlock the building.

### Create the access level to unlock the portal group

This is the unlock access level that will be assigned to the unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Unlock access A** and assign **Reader Group A**.
3. This access level can use the time spec **Always**.

### Create the access levels to relock the portal group

These are the relock access levels that will be assigned to the unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Relock access A** and assign **Reader Group A**.
3. This access level can use the time spec **Always**.

### Create a First-in Unlock Rule

1. Select **Setup : Site Settings : System Rules**.

2. Create a system rule called **Unlock A rule** and assign **Unlock access A** and **Relock access A** as the unlock and relock access levels.
3. You can now select from the next drop-down the time of day when you wish the First-in Unlock rule to reset.

**NOTE:** This may be needed to ensure that the unlock access level is NOT valid. Once the system sees a valid read of the **unlock access level** it can only be made invalid by a read of the **relock access level** or a reset at the time selected

### Assign the Unlock Rule to the portal group

1. Select **Setup : Access Control : Portal Groups**.
2. For **Portal Group A** assign **Unlock A rule** as the **First-in Unlock rule**.

**NOTE:** The portals should now relock. This is because both the unlock time spec and the First-in unlock rule must be satisfied before the portals will remain unlocked.

### Assign the access levels for lock and relock to a person

3. Select **Administration : People** and go to the person page of the person who will have the unlock/relock authority- let's call him **John Smith**.

**NOTE:** You cannot have both unlock and relock access levels assigned to the same person if both access levels are valid at the same reader. the portals will unlock and immediately relock. Therefore you will have to create an additional "person" for the additional badge.

4. On the **Access Control** tab grant John Smith the access level (**Unlock access A**) for unlocking **Portal Group A**.
5. Issue John Smith a badge if he does not already have one.
6. Now create an additional "person" in the system- let's call him **Relock Smith**.
7. On the **Access Control** tab grant **Relock Smith** the access level for relocking **Portal Group A**.
8. Issue **Relock Smith** a badge.

### Resulting behaviors

- When the badge for **John Smith** is presented to a reader in reader group A, all portals in portal group A will unlock if the unlock time spec is valid.
- When the badge for **Relock Smith** is presented to a reader in reader group A, portal group A will relock.
- All portals will relock when the unlock time spec becomes invalid.

## Case 2.

Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived. They want only one badge to function for both Unlock and Relock. This will require using different readers for Unlock than are used for Relock.

### Create the portal group

These are the portals to be unlocked during business hours as long as certain badge holders have arrived.

1. Select **Setup : Access Control : Portal Groups**.
2. Create **Portal Group A** for the portals in the building that should be unlocked.

### Create the time specification for unlock and assign it to the portal group

3. Select **Setup : Time : Time Specs**.
4. Create a time spec for 9 AM to 5 PM. (9:00 – 17:00)
5. Select **Setup : Access Control : Portal Groups** and assign the time spec to **Portal Group A** as an **Unlock Time Spec**.

**NOTE:** The portals in the group will unlock if the time spec is valid.

### Create two reader groups

This is the specific readers designated for valid reads of unlock and relock access levels. These could be one or many readers.

1. Select **Setup : Access Control : Reader Groups**.
2. Create **Unlock Reader Group A** with the readers that must be used to unlock the portal group.
3. Create **Relock Reader Group A** with the reader(s) that must be used to relock the portal group.

### Create the access level to unlock the portal group

This is the unlock access level that will be assigned to the First-in unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Unlock access A** and assign **Unlock Reader Group A**.
3. This access level can use the time spec **Always**.

### Create the access levels to relock the portal group

These are the relock access levels that will be assigned to the First-in unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Relock access A** and assign **Relock Reader Group A**.
3. This access level can use the time spec **Always**.

### Create a First-in Unlock Rule

1. Select **Setup : Site Settings : System Rules**.
2. Create a system rule called **Unlock A rule** and assign **Unlock access A** and **Relock access A** as the unlock and relock access levels.
3. You can now select from the next drop-down the time of day when you wish the First-in Unlock rule to reset.

**NOTE:** This may be needed to ensure that the unlock access level is NOT valid. Once the system sees a valid read of the **unlock access level** it can only be made invalid by a read of the **relock access level** or a reset at the time selected

### Assign the Unlock Rule to the portal group

1. Select **Setup : Access Control : Portal Groups**.
2. For **Portal Group A** assign **Unlock A rule** as the **First-in Unlock rule**.

**NOTE:** The portals should now relock. This is because both the unlock time spec and the First-in unlock rule must be satisfied before the portals will remain unlocked.

### Assign the access levels for lock and relock to a person

1. Select **Administration : People** and go to the person page of the person who will have the unlock/relock authority- let's call him **John Smith**.
2. On the **Access Control** tab grant John Smith the access level (**Unlock access A**) for unlocking **Portal Group A**.
3. On the **Access Control** tab grant John Smith the access level (**Relock Access A**) for relocking **Portal Group A**.

### Resulting behaviors

- When the badge for **John Smith** is presented to a reader in **Unlock Reader Group A**, all portals in portal group A will unlock if the unlock time spec is valid.
- When the badge for **John Smith** is presented to a reader in **Relock Reader Group A**, portal group A will relock.
- All portals will relock when the unlock time spec becomes invalid.

## Case 3.

Your customer wants a group of doors to be unlocked during business hours as long as certain badge holders have arrived and they want a different group of doors to unlock after business hours when certain badge holders arrive. This requires two portal groups with different unlock time specifications.

### Create the portal groups

One group is the portals to be unlocked during business hours as long as certain badge holders have arrived. The other group is the portals to be unlocked after business hours as long as certain badge holders have arrived.

1. Select **Setup : Access Control : Portal Groups**.
2. Create **Portal Group A** for the portals in the building that should be unlocked during business hours.
3. Create **Portal Group B** for the portals that should be unlocked after business hours.

### Create time specifications for unlock and assign them to the portal groups

1. Select **Setup : Time : Time Specs**.
2. Create a time spec for 9 AM to 5 PM. (9:00 – 17:00)
3. Select **Setup : Access Control : Portal Groups** and assign the time spec to **Portal Group A** as an **Unlock Time Spec**.

**NOTE:** The portals in portal group A will unlock if the time spec is valid.

4. Select **Setup : Time : Time Specs**.
5. Create a time spec for 5 PM to 11 PM. (17:00 – 23:00)
6. Select **Setup : Access Control : Portal Groups** and assign the time spec to **Portal Group B** as an **Unlock Time Spec**.

**NOTE:** The portals in portal group B will unlock if the time spec is valid.

### Create a reader group

This is the specific readers designated for valid reads of unlock and relock access levels. These could be one or many readers.

1. Select **Setup : Access Control : Reader Groups**.
2. Create **Reader Group A** with the readers that must be used to unlock and relock the building.

### Create the access level to unlock the portal groups

This is the unlock access level that will be assigned to the First-in unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Unlock access A and B** and assign **Reader Group A**.
3. This access level can use the time spec **Always**.

### Create the access levels to relock the portal groups

These are the relock access levels that will be assigned to the First-in unlock system rule.

1. Select **Setup : Access Control : Access Levels**.
2. Create an access level called **Relock access A and B** and assign **Reader Group A**.
3. This access level can use the time spec **Always**.

### Create a First-in Unlock Rule

1. Select **Setup : Site Settings : System Rules**.
2. Create a system rule called **Unlock A and B rule** and assign **Unlock access A and B** and **Relock access A and B** as the unlock and relock access levels.
3. You can now select from the next drop-down the time of day when you wish the First-in Unlock rule to reset.

**NOTE:** This may be needed to ensure that the unlock access level is NOT valid. Once the system sees a valid read of the **unlock access level** it can only be made invalid by a read of the **relock access level** or a reset at the time selected

### Assign the Unlock Rule to the portal group

1. Select **Setup : Access Control : Portal Groups**.
2. For Portal Group A assign Unlock A and B rule as the **First-in Unlock rule**.

**NOTE:** The portals should now relock. This is because both the unlock time spec and the First-in unlock rule must be satisfied before the portals will remain unlocked.

3. For **Portal Group B** assign **Unlock A and B rule** as the **First-in Unlock rule**.

### Assign the access levels for lock and relock to a person

1. Select **Administration : People** and go to the person page of the person who will have the unlock/relock authority- let's call him **John Smith**.

**NOTE:** You cannot have both unlock and relock access levels assigned to the same person if both access levels are valid at the same reader. the portals will unlock and immediately relock. Therefore you will have to create an additional "person" for the additional badge.

2. On the **Access Control** tab grant John Smith the access level (**Unlock access A and B**) for unlocking the portal groups.
3. Issue John Smith a badge if he does not already have one.
4. Now create an additional "person" in the system- let's call him **Relock Smith**.
5. On the **Access Control** tab grant **Relock Smith** the access level (**Relock access A and B**) for relocking the portal groups.
6. Issue **Relock Smith** a badge.

### Resulting behaviors

- When the badge for **John Smith** is presented to a reader in reader group A, all portals in portal group A will unlock if the time is between 9 AM and 5 PM. The portals in Portal Group B will unlock if the time is between 5 PM and 11 PM.

- When the badge for **Relock Smith** is presented to a reader in reader group A, portal group A will relock if the time is between 9 AM and 5 PM. The portals in Portal Group B will relock if the time is between 5 PM and 11 PM.
- Both portal groups will relock when their respective unlock time specs become invalid.