XPRESSENTRY

XPressEntry / Galaxy REST Integration

Revision 01/22/2024

For use with the
XPressEntry Mobile Access Control
System

By

TELAERIS

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Purpose

This document is intended to instruct users on how to synchronize an XPressEntry system with a **System Galaxy** system. XPressEntry has the capability of providing access control management from a handheld device. For XPressEntry setup information, see the document, "XPressEntry Installation and Upgrade" found at **https://telaeris.com/documentation**.

Pre-requisites/Requirements

1. XPressEntry 3.5+
2. System Galaxy, any version including 11.8.4.1 + Cloud.
3. Part #: pacs-int-001-galaxy
4. Windows 8.1+ or server type equivalent

Setting Up System Galaxy to Synchronize with XPressEntry

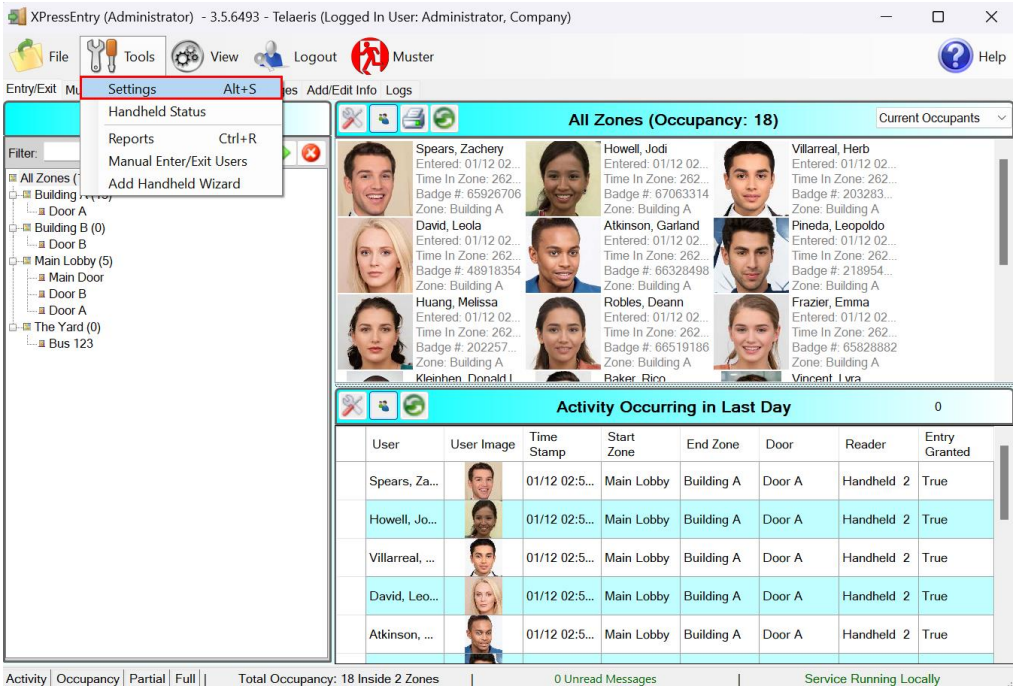
It is assumed that a version of System Galaxy and XPressEntry are installed on computers or virtual machines that can **talk to each other**, or the **same** computer or virtual machine. To install XPressEntry, you should have Administrator privileges on its respective machine. You should additionally be an **Administrator** or super user in the **System Galaxy** System.

Order of Operations

1. Setup System Galaxy's Data and Settings
2. Enable XPressEntry Synchronization
3. Set up XPressEntry Data

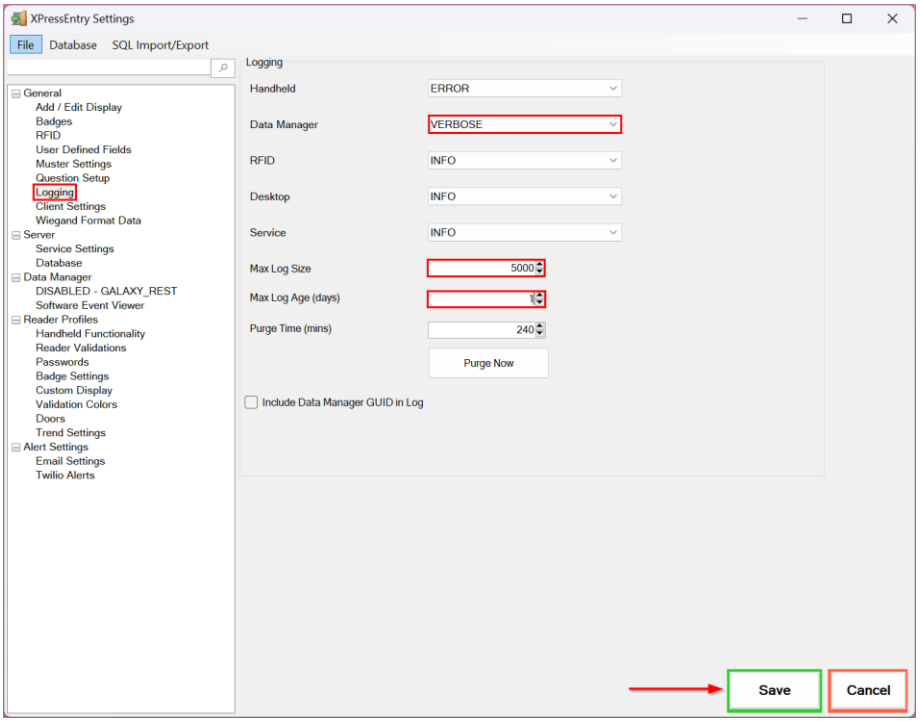
Setup System Galaxy Data and Settings

XPressEntry uses a module called Data Manager to synchronize all data with System Galaxy. From the main page of XPressEntry, go to XPressEntry > Settings (ALT+S or **Tools > Settings**).



General Tab

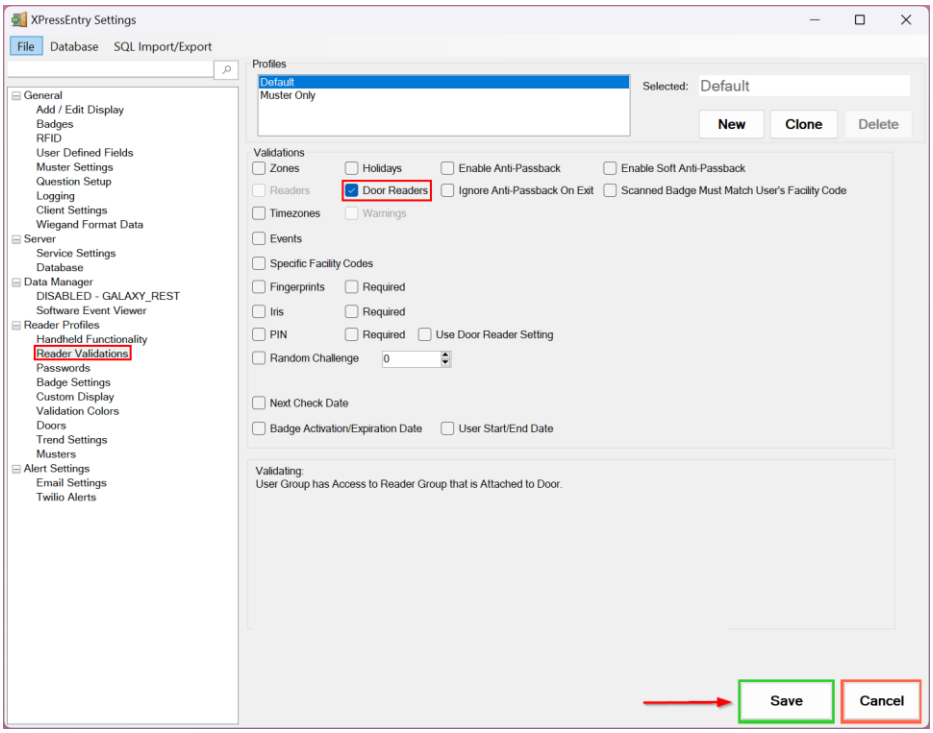
1. From the Settings page, select **General > Logging**.
2. Set the Data Manager Log level to **DEBUG** or **VERBOSE**
    a. This will allow you to view log entries during the sync process.
3. Max Log Size – **5000** or higher
4. Max Log Age – **1** Day or higher



Once the integration is complete, set the log level to **ERROR** so only error messages will be tracked.

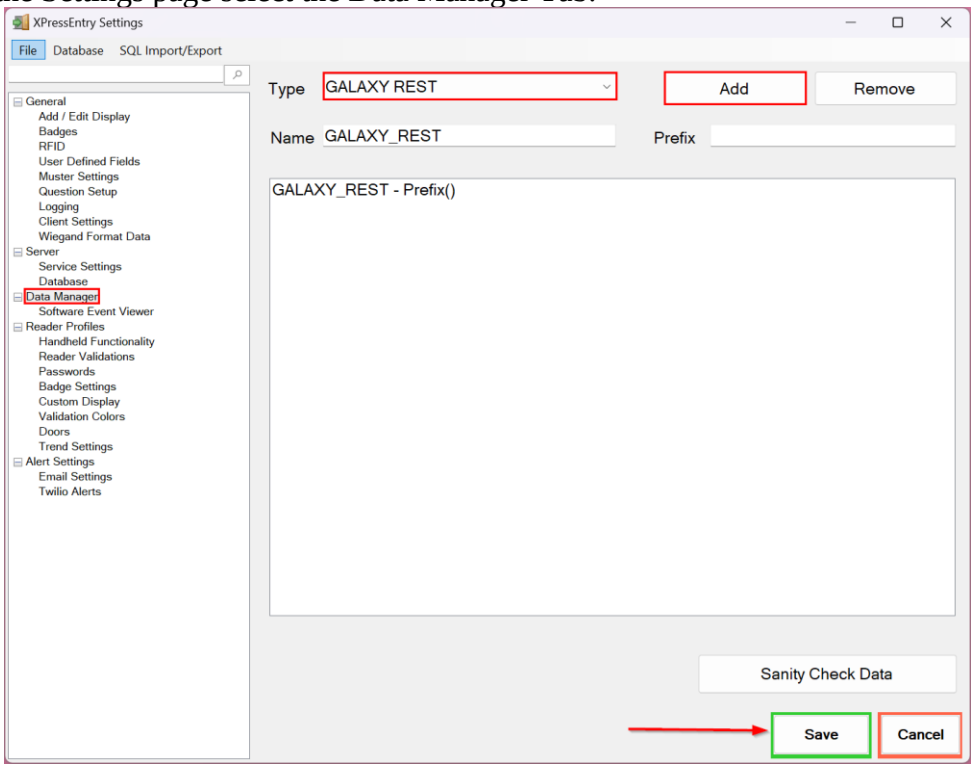
Reader Profile Tab

1. Go to **Reader Profiles > Reader Validations**. This is where you configure the handhelds.
2. Ensure that **Door Readers** is the only mode checked under **Validations**.
3. Select **Save** at the bottom right when finished.



Data Manager Tab

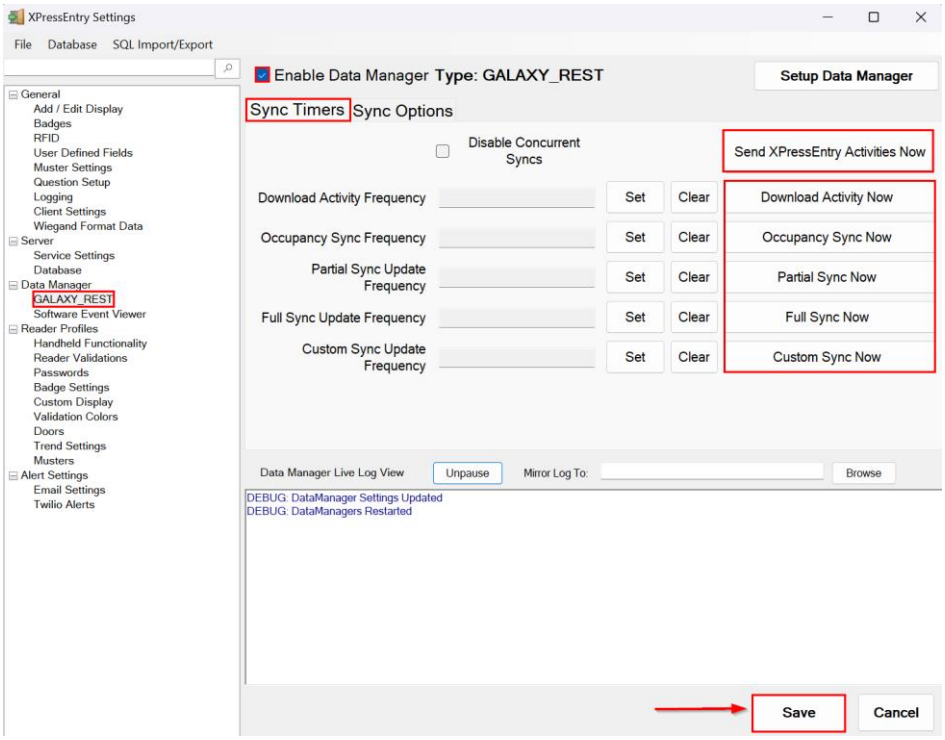
From the Settings page select the Data Manager Tab.



1. **Type** – This is the integration type. Select **GALAXY REST > Add > Save.**
2. Go to **Data Manager > GALAXY REST** in sidebar menu.
3. **Setup Data Manager** – This sends you to the setup form for GALAXY REST data manager.

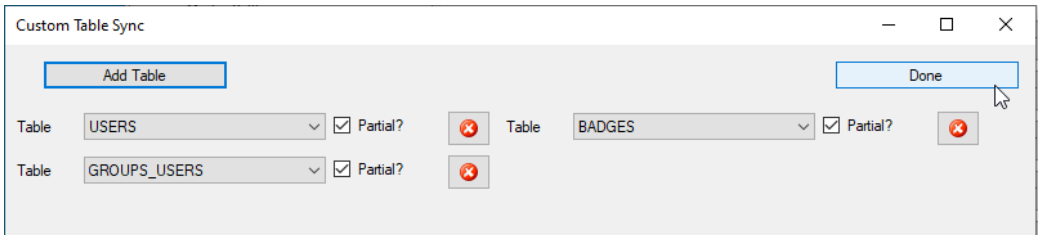
Sync Timers

XPressEntry uses Timers to pull System Galaxy data into XPressEntry.

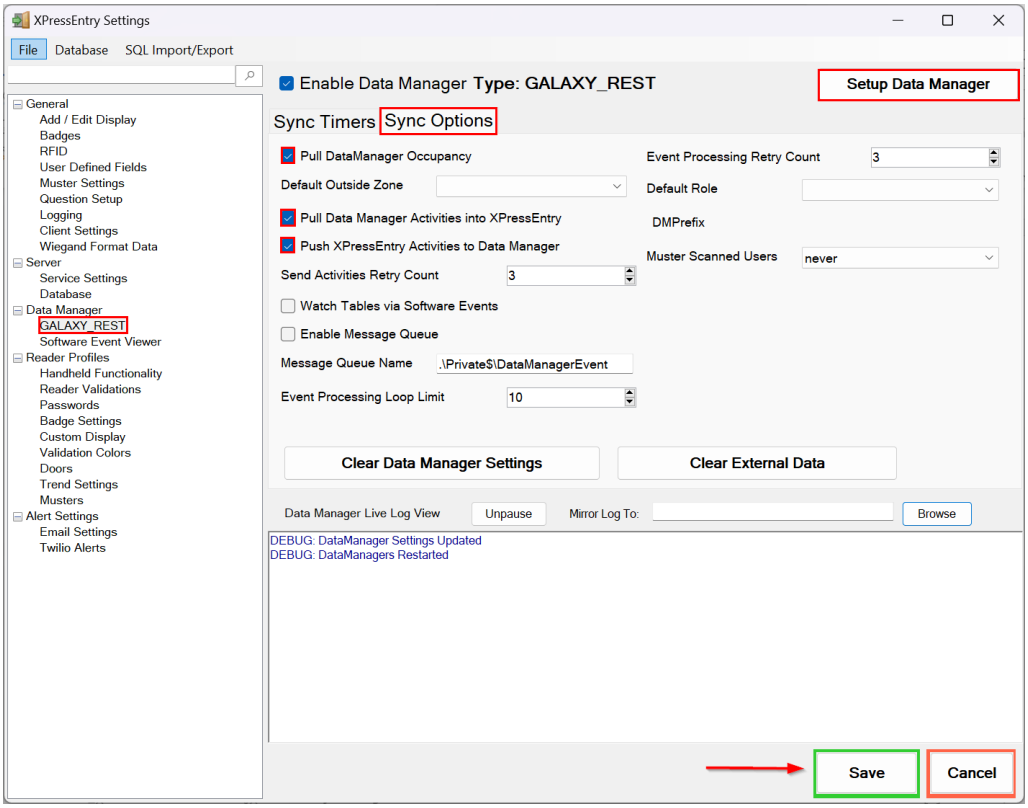


1. **Download Activity Frequency** – Pulls reader scan records into XPressEntry and stores them in XPressEntry's activity table. This function also updates the zone occupancy.
2. **Occupancy Sync Frequency** – Updates the zone occupancy without storing the activity records.
3. **Partial Sync Frequency** – Pulls all data excluding cardholder data, including readers, areas, access levels. It will only grab the last x number of users that were added to the system.
    a. **Do** use this sync to quickly update any table in XPressEntry.
    b. **Do** use this sync to quickly add a new user into XPressEntry from System Galaxy.
    c. **Do NOT** use this sync to delete a user from XPressEntry who was deleted in System Galaxy.
    d. **Do NOT** use this sync to update a user from XPressEntry who was changed in System Galaxy.
4. **Full Sync Update Frequency** – Updates all tables by pulling all necessary records from Galaxy. This function may take some time.
    a. It is recommended to run a full sync **once per day** in the middle of the night when the system is not busy.
5. **Custom Sync Frequency** – Updates a set of tables that the user configures.

a. To configure, right click **Custom Sync Now** and select **Edit Custom Sync**.



Sync Options



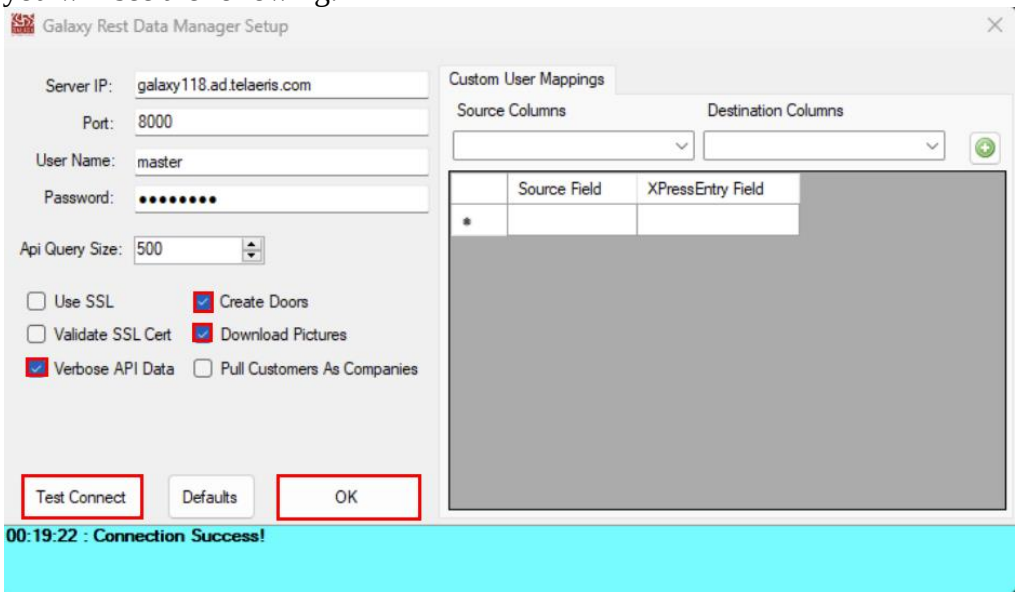
1. **Pull Data Manager Occupancy** – Enables use of the Occupancy Sync.
2. **Pull Data Manager Activities into XPressEntry** – Enables use of the Activity Sync.
3. **Push XPressEntry Activities to Data Manager** – Enables XPressEntry to push Scan data to System Galaxy.
4. **Send Activities Retry Count** – Number of times XPressEntry will attempt to resend an activity if it fails.
5. **Default Role** – The default XPressEntry Role that will be assigned to users if the integration does not otherwise assign a role. Entrants are recommended but not required.
6. **Muster Scanned Users** – Enables sync to convert scans from specific readers to be converted into Muster Scans which mark users as safe. Muster readers must be configured in the reader data. Please see ***Mustering Documentation*** for more details.
7. **Setup DataManager Button** – Opens System Galaxy specific settings.
8. **Clear DataManager Settings** – Resets all settings on the two above tabs, as well as

the System Galaxy specific settings.

9. **Clear External Data** – Deletes all data synced from System Galaxy from the XPressEntry Database.

System Galaxy Data Manager Setup Page

Press the **Setup Data Manager** button to get the System Galaxy specific setup screen. In the new window, you will see the following:



1. **Server IP** – System Galaxy Server IP Address.
2. **Port** – System Galaxy Server Port.
3. **User Name and Password** – System Galaxy Login details.
4. **Use SSL** – Tick this if using a secure connection (HTTPS).
5. **Verbose API Data** – Tick this if you want to log API data.
6. **Download Pictures** – Enabling this will download user images from System Galaxy.
7. **Create Doors** – Tick this if you want to create doors in XPressEntry out of the readers pulled from System Galaxy.
8. **Pull Customers As Companies** – Ticking this will pull customers from System Galaxy and map to XPressEntry as Companies.
9. **API Query Size** – Number of items to be downloaded in a single API call (Used to optimize API calls).
10. **Custom User Mapping** – This section is used to pull the General-Purpose-Text fields from System Galaxy.

Click **Test Connect** after entering all the data correctly – this will connect to the System Galaxy access control system.

- ***Connection Success!*** will display if connected to System Galaxy successfully.
- Any **errors** in the connection will show in the same result window.

Exit out of this form. On the Data Manager tab of the Settings form, select **Save**. It is now time to begin syncing data.

Enable XPressEntry Synchronization

XPressEntry Data

After setting up the data manager, run the initial **Full Sync** to pull data from System Galaxy. Once the Galaxy system is set up and synchronizing, you will see this data represented in XPressEntry under the **Add/Edit Info** tab.

Data which is imported from System Galaxy **cannot be changed** and is greyed out in XPressEntry without proper permissions.

Sync Check

The purpose of this section is to help the operator understand exactly what data XPressEntry is pulling from System Galaxy. For a quick setup, please navigate to the next section, **Set up XPressEntry Data.**

The mapping of each Data pulled from System Galaxy is shown below.

System Galaxy	XPressEntry
Reader	Reader
Door	Door
Cardholders	Users
Cards	Badges
Card Data Format	Badge Types
Access Group	Groups
Area	Zones
Schedule	Time Zones
Special Days	Holidays

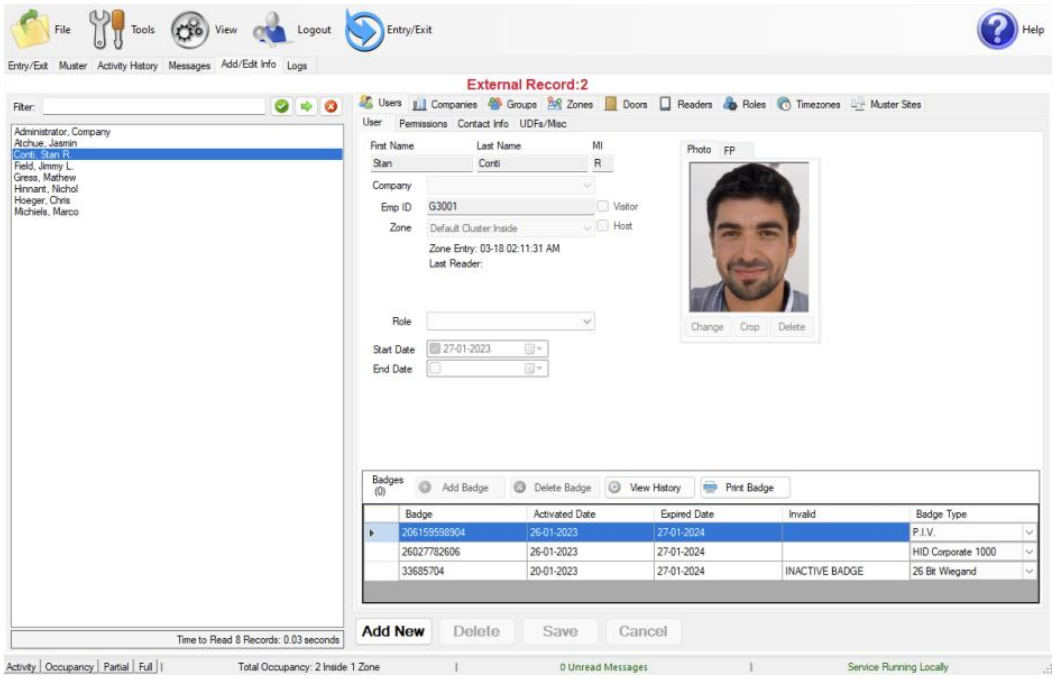
Users

All External Records (From System Galaxy) will display in red as an **External Record** at the top of the form. This label will not display for any records that were created from within XPressEntry.

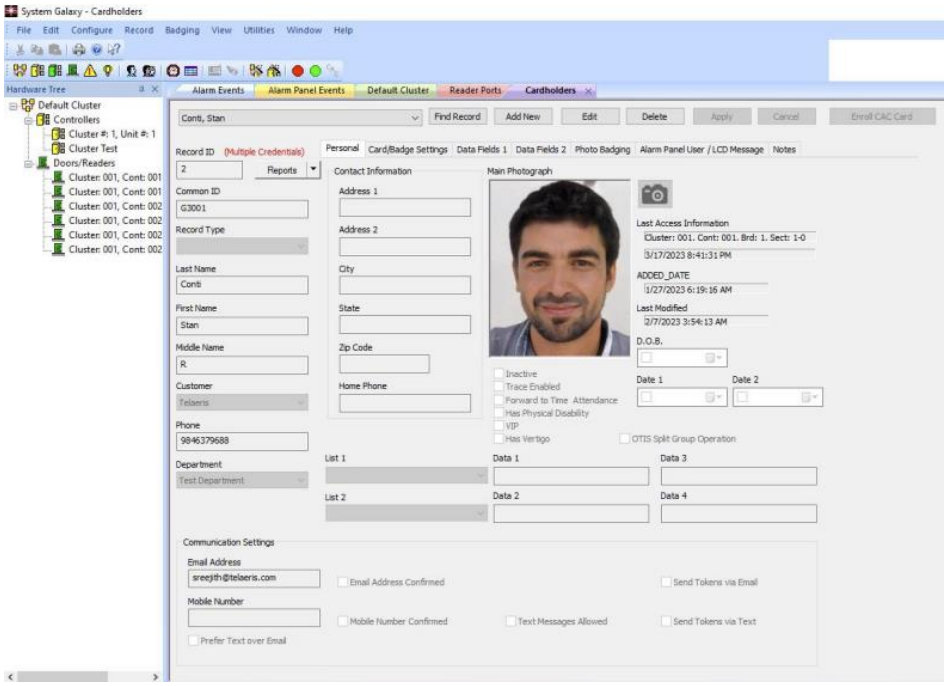
XPressEntry will pull the user's **image** and **badge number** from System Galaxy. The badge number can be seen at the bottom of the screen.

Here is a sample of a properly synchronized user:

XPressEntry User



System Galaxy User

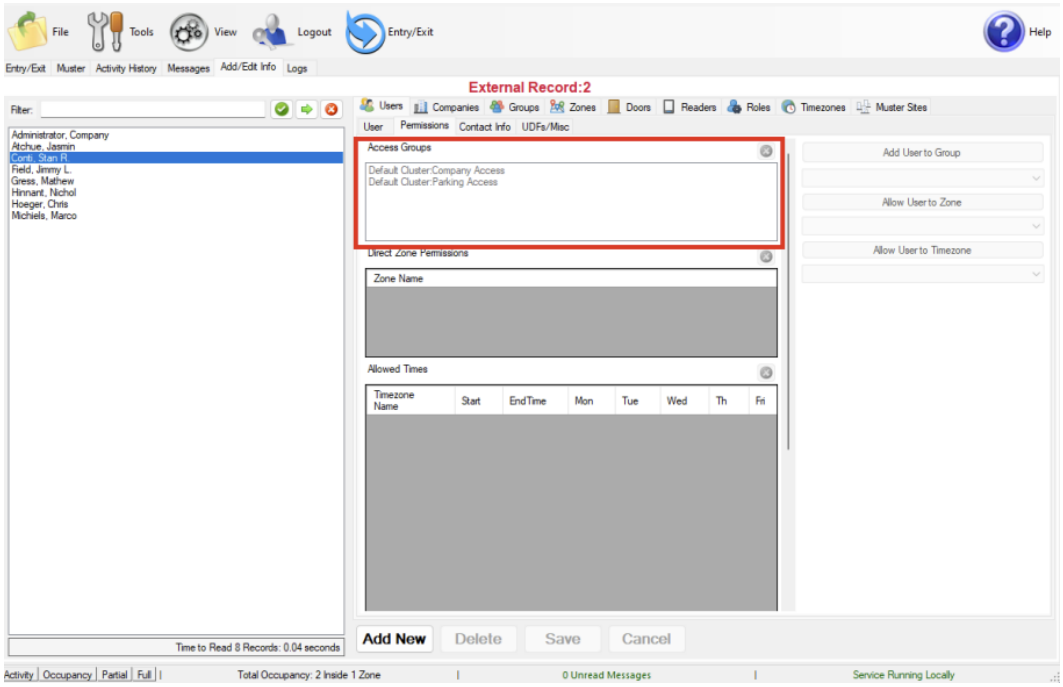


These users are seen in the Cardholders Window in the System Galaxy.

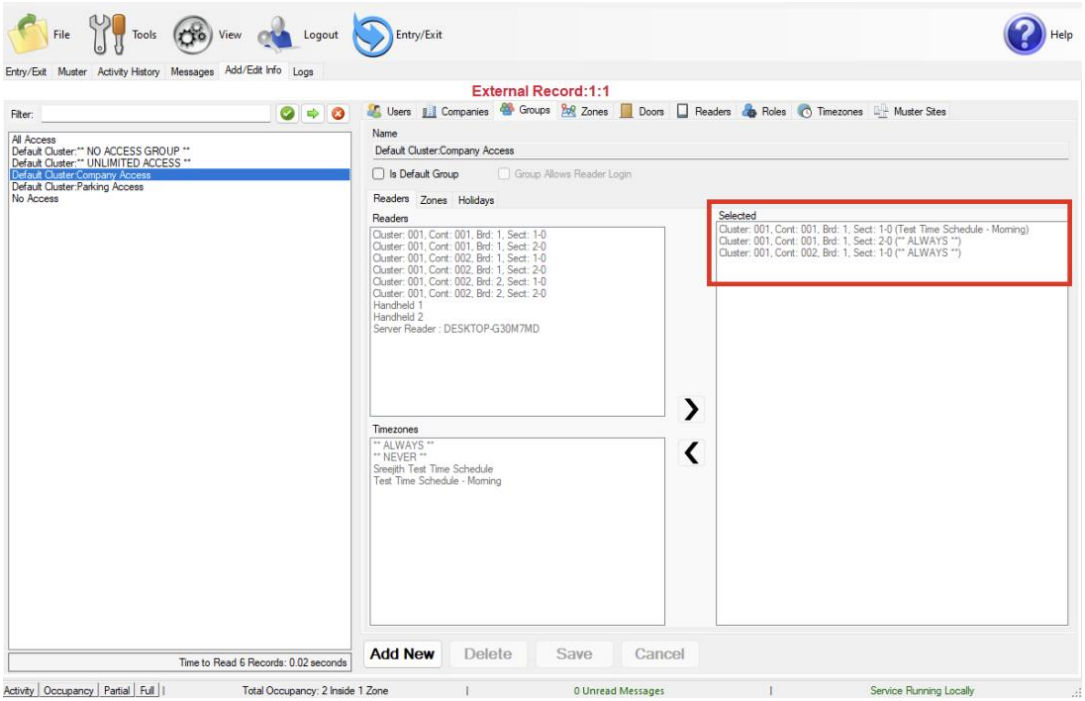
User Permissions

Users in XPressEntry have the **same permissions** to each reader as they do in System Galaxy. This is regardless of whether the user is assigned an Access Code, Reader Group, or direct access to a Reader.

XPressEntry User Permissions

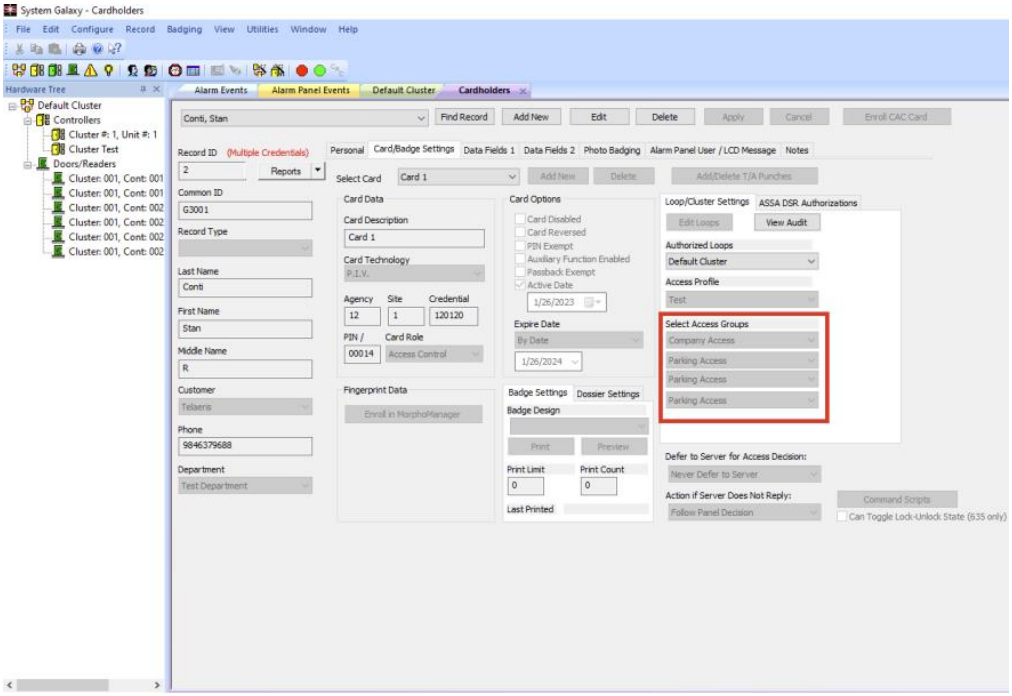


XPressEntry Permissions Readers



The **Company Access** and **Parking Access** groups have two readers assigned in the Access Group settings in the System Galaxy System Configuration as seen in the below image.

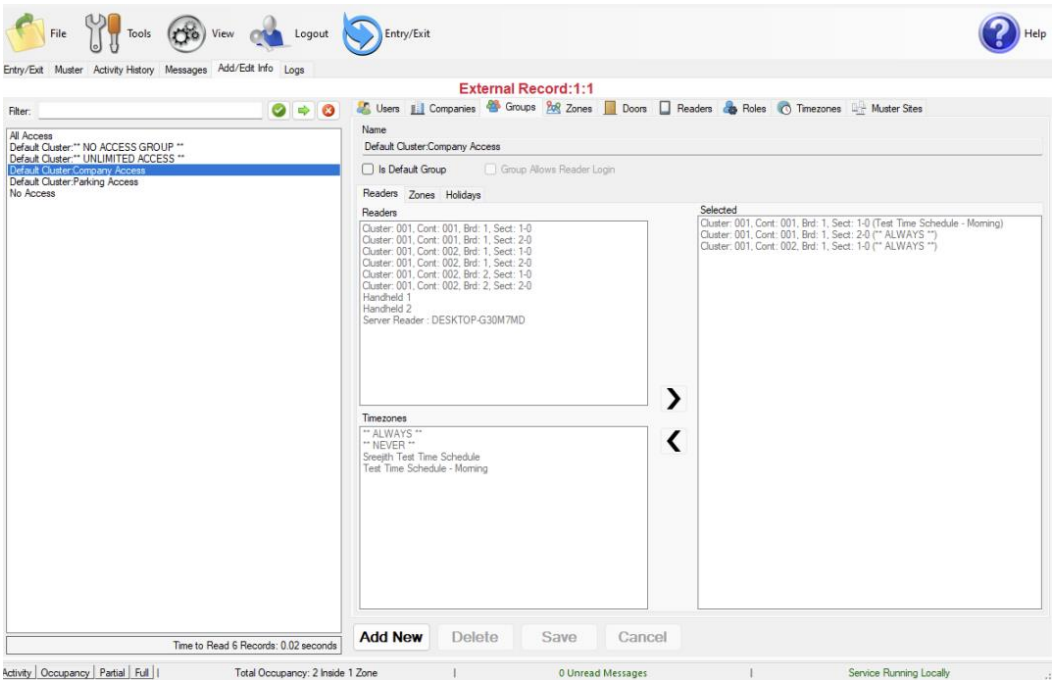
System Galaxy Permissions



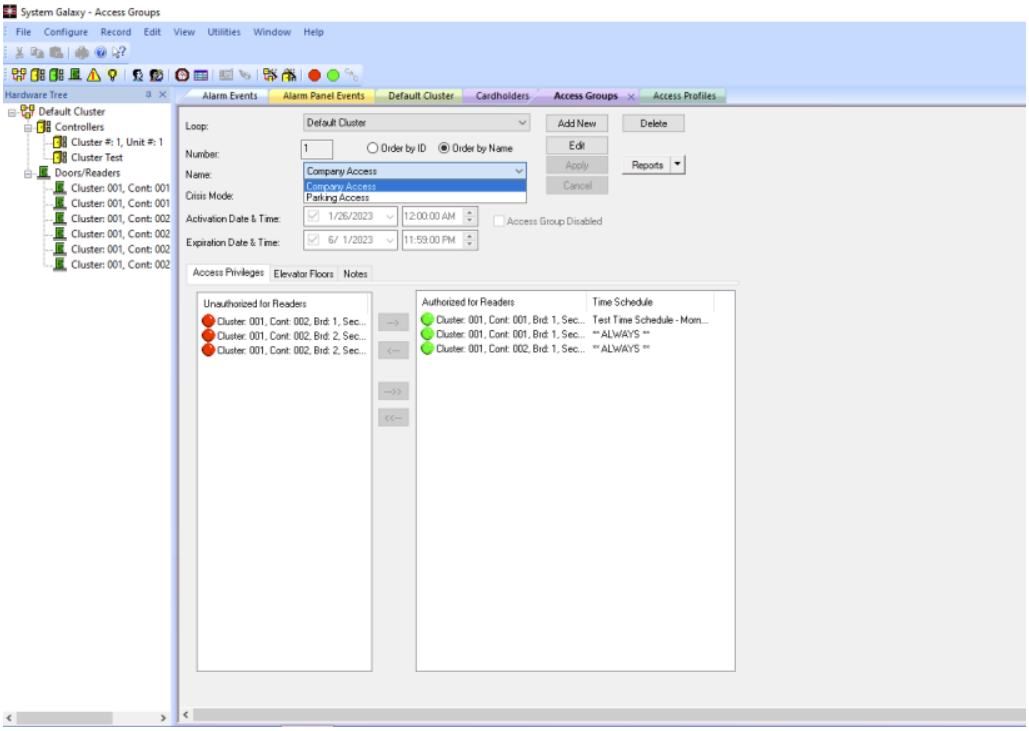
Groups

System Galaxy Access Groups are mapped to Groups in XPressEntry.

XPressEntry Groups



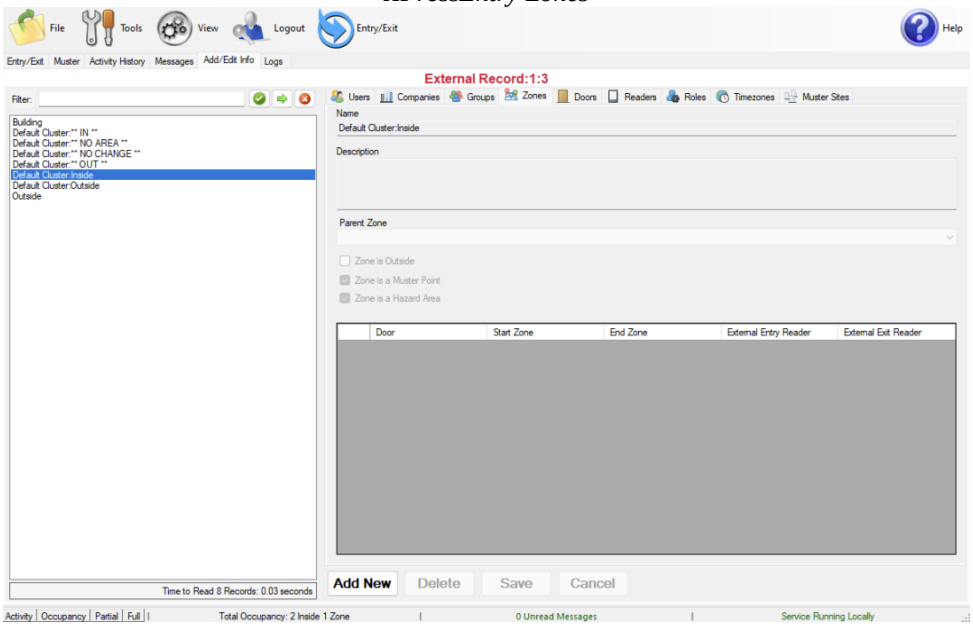
System Galaxy Groups



Zones

The Areas in System Galaxy should be available to view in the **Zone** tab under **Add/Edit Info** in XPressEntry. Here is a sample of properly synchronized Zones.

XPressEntry Zones

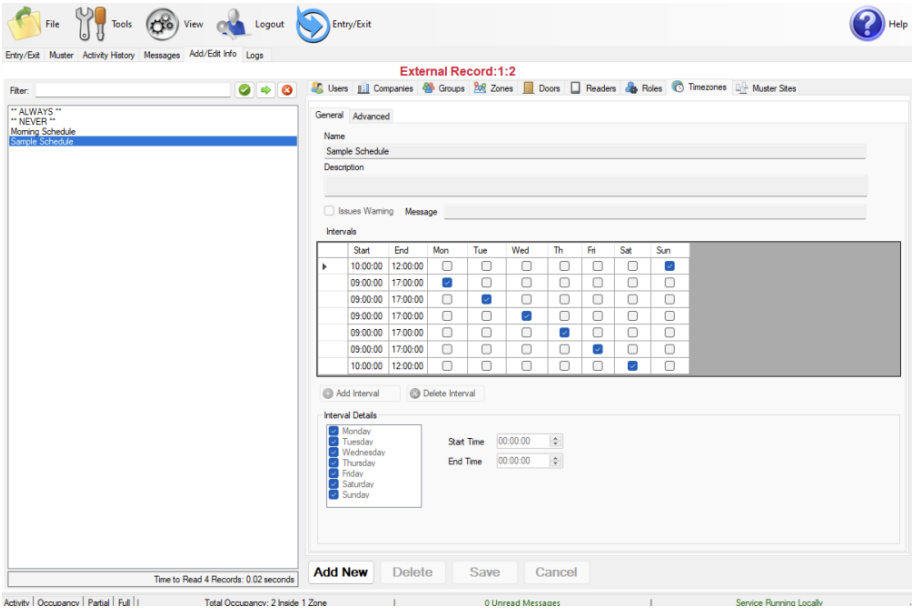


Timezones

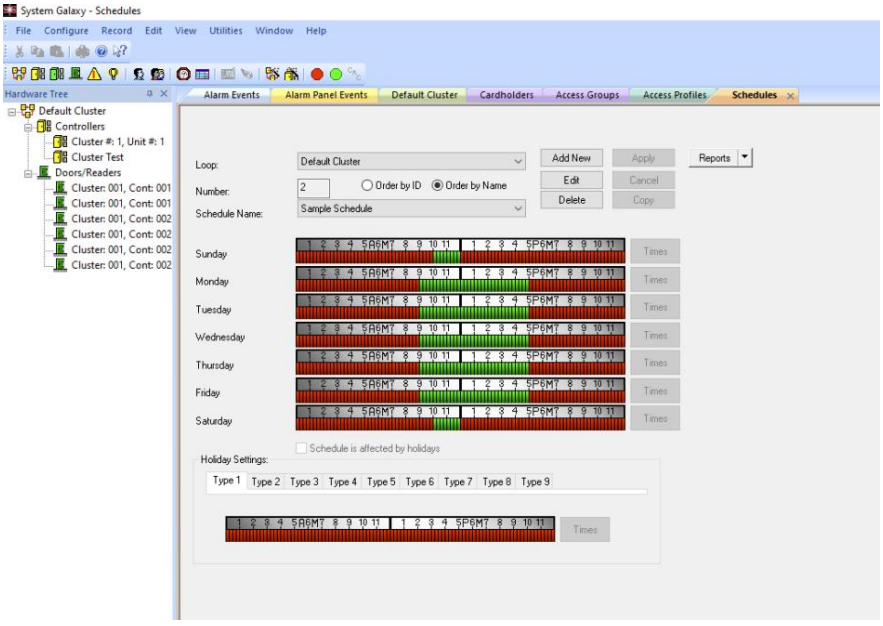
Timezones are pulled from System Galaxy **Time Schedules** in XPressEntry. Timezones should be available to view in the **TimeZones** tab under **Add/Edit Info**.

If a single Time Zone has multiple standard time ranges for different days of the week, XPressEntry will create additional intervals to support this. Also, XPressEntry will ignore the time zone intervals with same start and end time.

XPressEntry Timezones



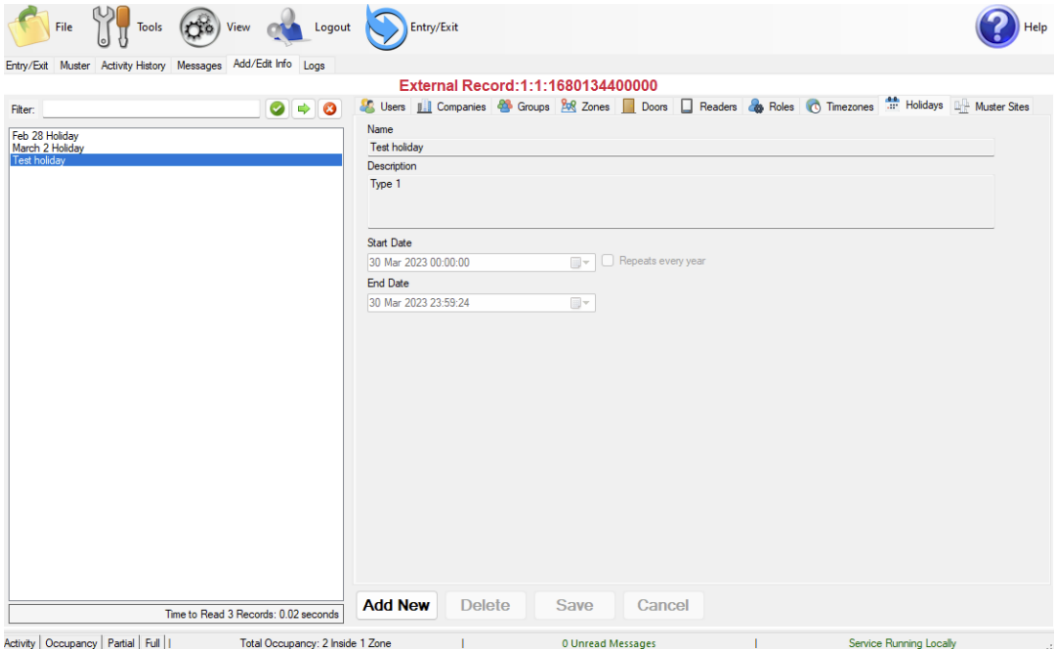
System Galaxy Time Schedules



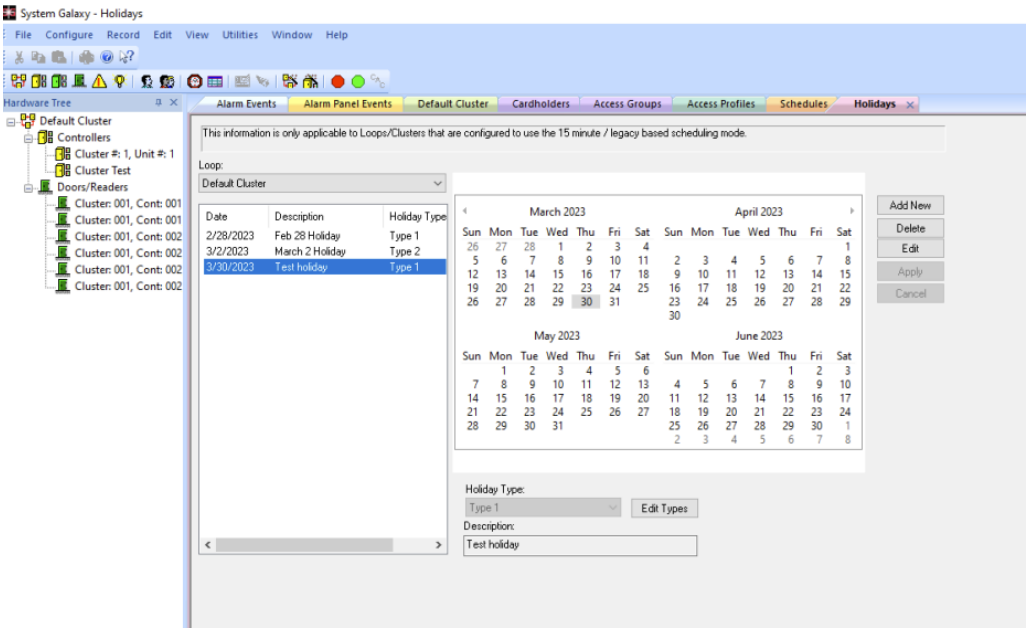
Holidays

Holidays are the simplest tables to pull from System Galaxy. Timezones are pulled from System Galaxy **Holidays (Special Days)** Window. All the Holidays pulled should be available to view in the **Holidays** tab in XPressEntry.

XPressEntry Holidays



System Galaxy Holidays



Set up XPressEntry Data

Now that XPressEntry has been synchronized with the System Galaxy database, it needs to be configured to use this information. The tabs that need to be configured are the Doors, Readers, and Zones.

Doors

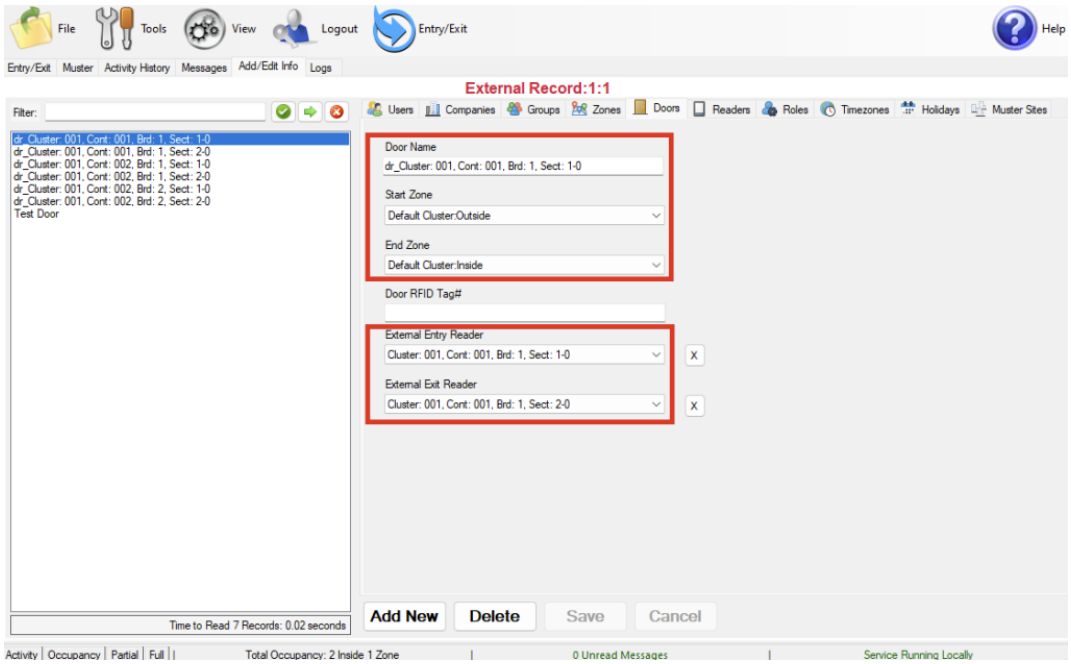
Entry/Exit permissions in XPressEntry are set by doors. Doors contain **two readers** – an exit and an entry **reader.**

Door access is determined by the user's access to the door's reader. For **entry**, permission is based on the user's access to the door's **external entry reader**. For **exit**, permission is based on the user's access to the door's **external exit reader**.

Doors should be set by the user for each Handheld Reader in XPressEntry.

The XPressEntry Integration with System Galaxy **does not require additional start and end zones**. However, XPressEntry can help keep track of what zones people are in if configured correctly.

If we tick the option **Create Doors** in the **Galaxy Data Manager Setup window** (see *System Galaxy Data Manager Setup Page*) then, while pulling readers from System Galaxy, a door is created in XPressEntry with respect to each reader as shown in the below image. Otherwise, we need to create a door manually, which is explained below.



1. Zones – For each door, set the **start zone** and **end zone**. This will "enter" a user in the specified zone when they enter or exit (or scan at a System Galaxy readers).
2. External Readers – Attach the logical **entry** and **exit readers** that you created in System Galaxy.

There should be a door in XPressEntry for each physical station that an employee will have a handheld. To create a door:

1. Select **Add New** at the bottom of the form.
2. Enter a name that clearly describes what this door represents.

3. Select **Outside** for Start Zone and **Building** for End Zone.
4. Since each door is created based on a reader, The “External Entry Reader” will be always the Selected Reader. “External Exit Reader” is one of the Exit readers you created in System Galaxy.

Doors can also be added for each of the physical door readers. If XPressEntry is set up to pull activities, it will move people in the system based on the reader they were scanned at, and the zones attached to the door.

Readers

In XPressEntry’s System Galaxy integration, it is not necessary to associate any reader in the system with a handheld. This association can be done on the handheld when it comes time to scan.

Activities

XPressEntry will synchronize activities to System Galaxy if that option has been set by the Data Manager.

1. If XPressEntry is configured to **push** activities, they will appear in the **Event** and **Alarm monitoring section** in the System Galaxy Software.
2. If XPressEntry is configured to **pull** activities, the **occupancy** of the system will change each time a person **scans** at a reader that is mapped to a door in XPressEntry.

You may want to pull activities if:

1. You want to use XPressEntry to manage Emergency Evacuations.
    a. XPressEntry uses System Galaxy activities to determine who is on and who is off campus.
    b. In the case of a mustering event, XPressEntry will have an up-to-date list of who is on site on this day.
    c. Using this list, XPressEntry can be utilized to “muster” or mark people as safe to create a list of people who are still on site.
2. You want to use XPressEntry’s features to determine who is on site, and what areas people are in.

For more information about the functionality of XPressEntry, please look at the XPressEntry manual.