

XPressEntry

XPressEntry / Galaxy REST Integration

Revision 01/22/2024

For use with the
XPressEntry Mobile Access Control
System

By



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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**).

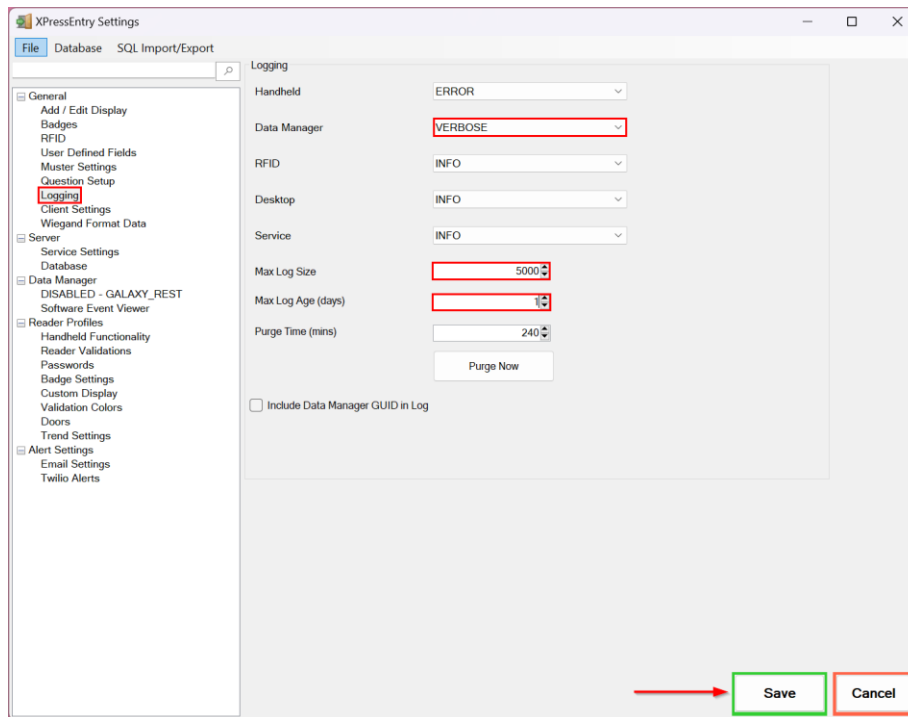
All Zones (Occupancy: 18)

User	User Image	Time Stamp	Start Zone	End Zone	Door	Reader	Entry Granted
Spears, Zachery		01/12 02:5...	Main Lobby	Building A	Door A	Handheld 2	True
Howell, Jo...		01/12 02:5...	Main Lobby	Building A	Door A	Handheld 2	True
Villarreal, ...		01/12 02:5...	Main Lobby	Building A	Door A	Handheld 2	True
David, Leo...		01/12 02:5...	Main Lobby	Building A	Door A	Handheld 2	True
Atkinson, ...		01/12 02:5...	Main Lobby	Building A	Door A	Handheld 2	True

Activity | Occupancy | Partial | Full | Total Occupancy: 18 Inside 2 Zones | 0 Unread Messages | Service Running Locally

General Tab

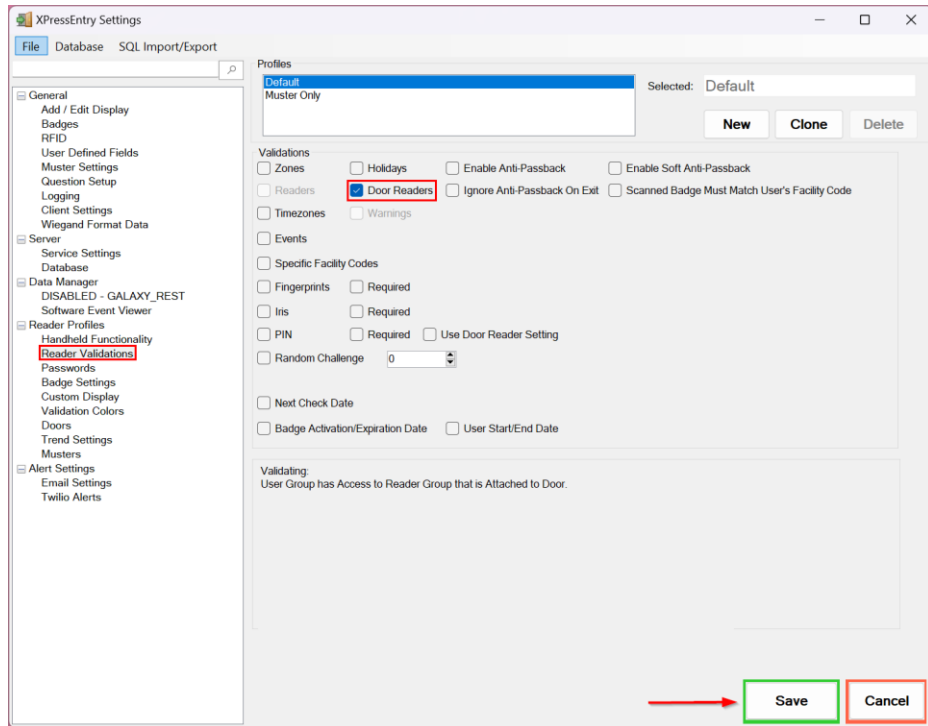
1. From the Settings page, select **General > Logging**.
2. Set the Data Manager Log level to **DEBUG** or **VERBOSE**
 - a. This will allow you to view log entries during the sync process.
3. Max Log Size – **5000** or higher
4. Max Log Age – **1 Day** or higher



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

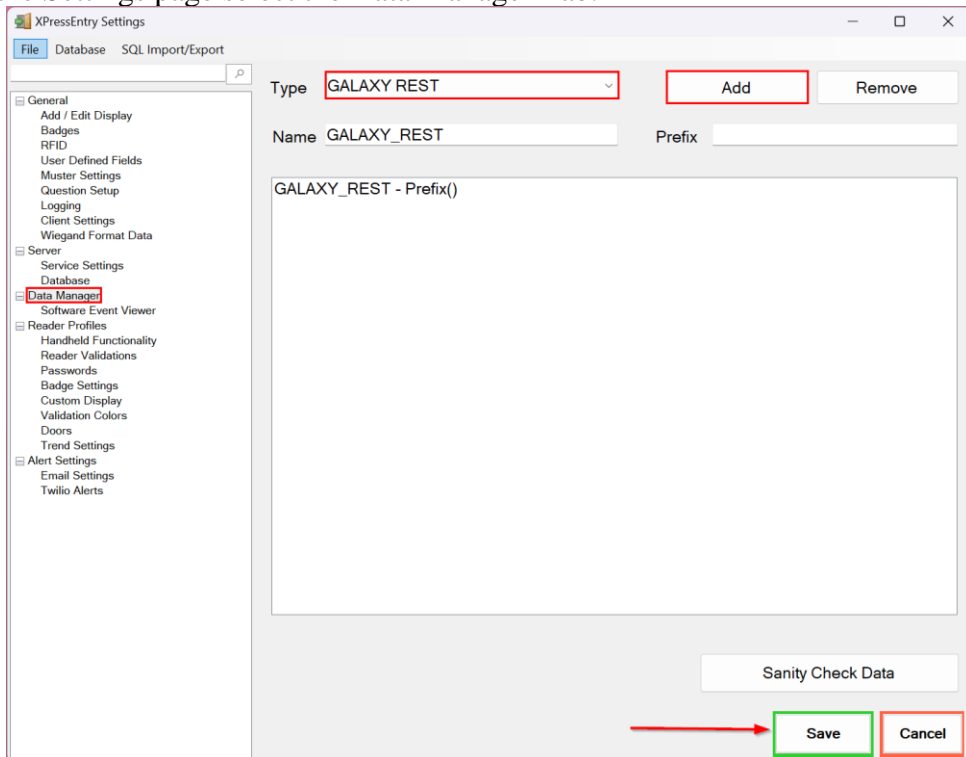
Reader Profile Tab

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.

XPressEntry Settings

File Database SQL Import/Export

☒ Enable Data Manager Type: GALAXY_REST Setup Data Manager

Sync Timers Sync Options

☐ Disable Concurrent Syncs

Send XPressEntry Activities Now

Download Activity Frequency	Set	Clear	Download Activity Now
Occupancy Sync Frequency	Set	Clear	Occupancy Sync Now
Partial Sync Update Frequency	Set	Clear	Partial Sync Now
Full Sync Update Frequency	Set	Clear	Full Sync Now
Custom Sync Update Frequency	Set	Clear	Custom Sync Now

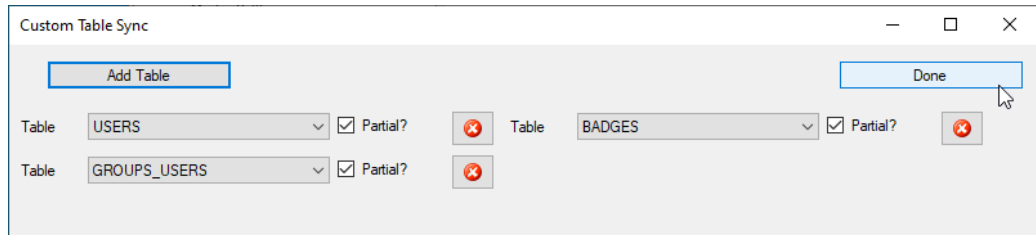
Data Manager Live Log View Unpause Mirror Log To: Browse

DEBUG: DataManager Settings Updated
DEBUG: DataManagers Restarted

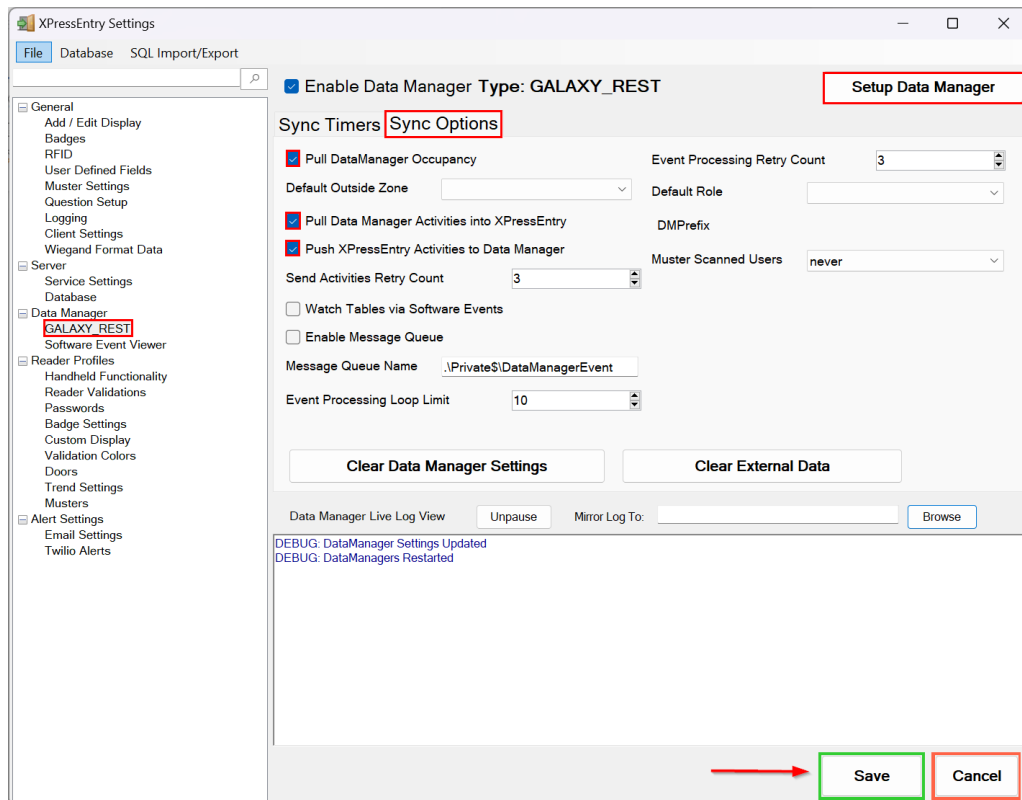
Save Cancel

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 Data Manager Button** – Opens System Galaxy specific settings.
8. **Clear Data Manager 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:

Galaxy Rest Data Manager Setup

Server IP: galaxy118.ad.telaeris.com

Port: 8000

User Name: master

Password:

Api Query Size: 500

☐ Use SSL ☒ Create Doors

☐ Validate SSL Cert ☒ Download Pictures

☒ Verbose API Data ☐ Pull Customers As Companies

Test Connect Defaults OK

00:19:22 : Connection Success!

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

File Tools View Logout Entry/Exit Help

Entry/Exit Muster Activity History Messages Add/Edit Info Logs

External Record:2

Filter: Administrator, Company
 Archie, Jasmin
 Conti, Stan R
 Field, Jimmy L
 Gress, Mathew
 Hinnant, Nichol
 Hoeger, Chris
 Michaels, Marco

Users Companies Groups Zones Doors Readers Roles Timezones Muster Sites

User Permissions Contact Info UDFs/Misc

First Name Last Name MI
 Stan Conti R

Company
 Emp ID G3001 Visitor
 Zone Default Cluster: Inside Host
 Zone Entry: 03-18 02:11:31 AM
 Last Reader:

Photo FP
 Change Crop Delete

Role
 Start Date 27-01-2023
 End Date

Badges (0) Add Badge Delete Badge View History Print Badge

Badge	Activated Date	Expired Date	Invalid	Badge Type
206159589904	26-01-2023	27-01-2024		P.I.V.
26027782606	26-01-2023	27-01-2024		HID Corporate 1000
33685704	20-01-2023	27-01-2024	INACTIVE BADGE	26 Bt Wiegand

Time to Read 8 Records: 0.03 seconds

Activity | Occupancy | Partial | Full | Total Occupancy: 2 Inside 1 Zone | 0 Unread Messages | Service Running Locally

Add New Delete Save Cancel

System Galaxy User

System Galaxy - Cardholders

File Edit Configure Record Badging View Utilities Window Help

Hardware Tree Alarm Events Alarm Panel Events Default Cluster Reader Ports Cardholders

Default Cluster
 Cluster # 1, Unit #: 1
 Cluster Test
 Doors/Readers
 Cluster: 001, Cont: 001
 Cluster: 001, Cont: 002
 Cluster: 001, Cont: 002
 Cluster: 001, Cont: 002

Conti, Stan Find Record Add New Edit Delete Apply Cancel Enroll CAC Card

Record ID (Multiple Credentials) Personal Card/Badge Settings Data Fields 1 Data Fields 2 Photo Badging Alarm Panel User / LCD Message Notes

2 Reports

Contact Information

Common ID
 G3001
 Record Type
 Last Name
 Conti
 First Name
 Stan
 Middle Name
 R
 Customer
 Telsaris
 Phone
 9846379588
 Department
 Test Department

Address 1
 Address 2
 City
 State
 Zip Code
 Home Phone

Main Photograph

Last Access Information
 Cluster: 001, Cont: 001, Brd: 1, Sect: 1-0
 3/17/2023 8:43:31 PM
 ADDED_DATE
 1/27/2023 6:19:16 AM
 Last Modified
 2/7/2023 3:54:13 AM
 D.O.B.
 Date 1 Date 2

☐ Inactive
☐ Trace Enabled
☐ Forward to Time Attendance
☐ Has Physical Disability
☐ VIP
☐ Has Vertigo
☐ OTIS Split Group Operation

List 1 Data 1 Data 3
 List 2 Data 2 Data 4

Communication Settings

Email Address
 sreeth@telsaris.com
 Mobile Number
 Send Tokens via Email
 Send Tokens via Text
 Prefer Text over Email

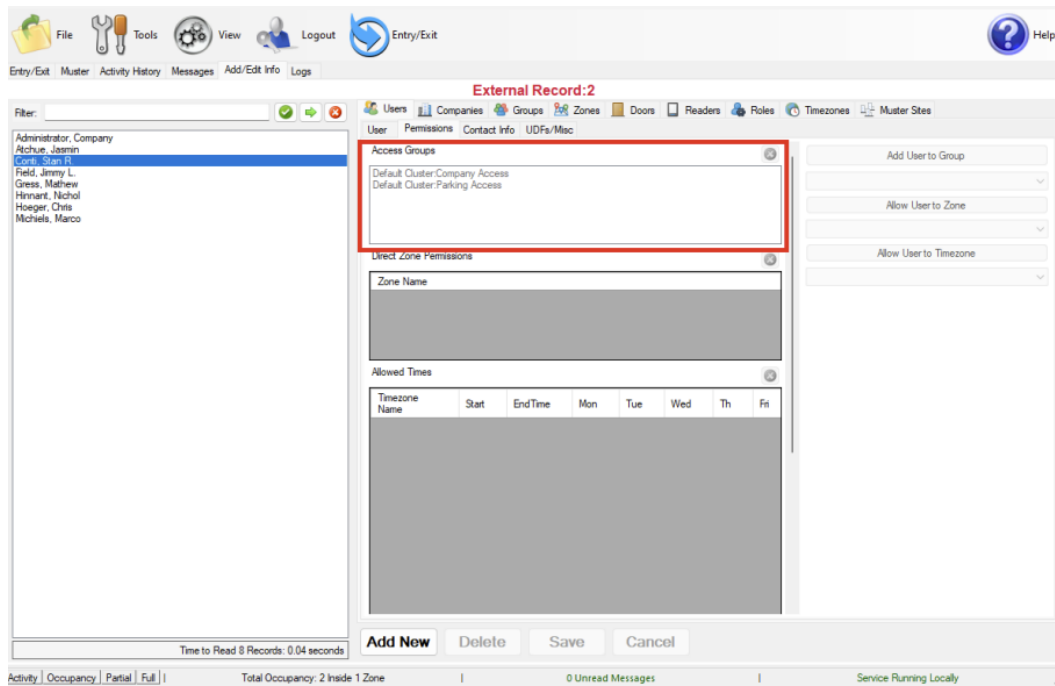
These users are seen in the Cardholders Window in the System Galaxy.

User Permissions

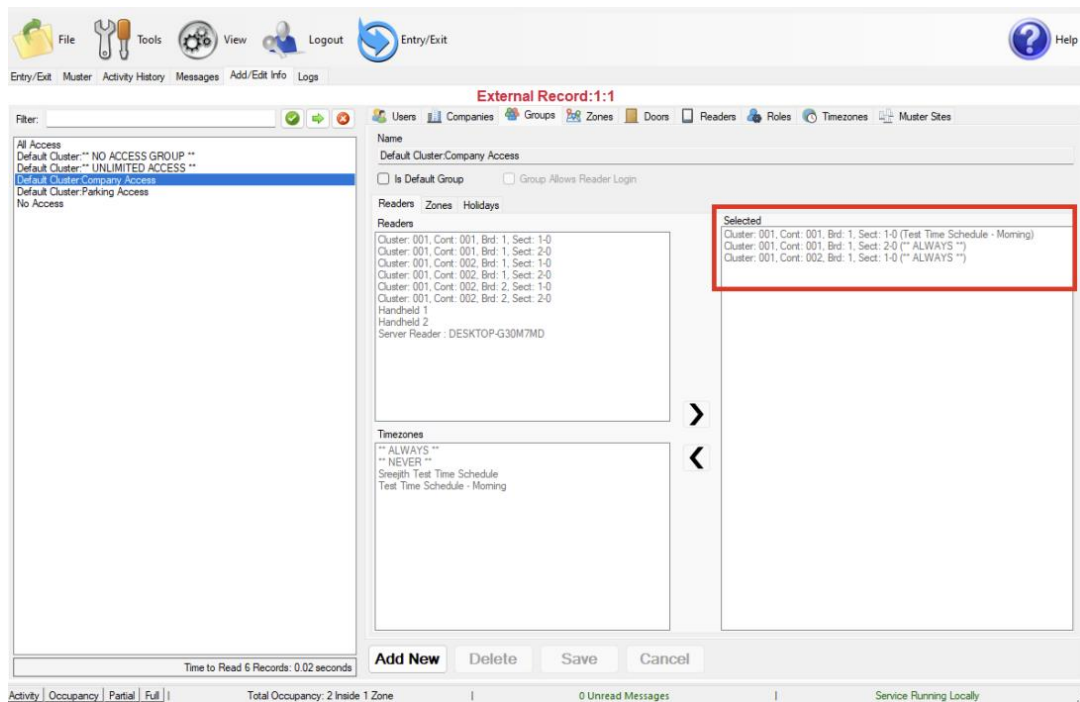
Users in XPressEntry have the **same permissions** to each reader as they do in System Galaxy.

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

System Galaxy - Cardholders

File Edit Configure Record Badging View Utilities Window Help

Hardware Tree

- Default Cluster
 - Controllers
 - Cluster #1, Unit #1
 - Cluster Test
 - Doors/Readers
 - Cluster: 001, Cont: 001
 - Cluster: 001, Cont: 001
 - Cluster: 001, Cont: 002
 - Cluster: 001, Cont: 002
 - Cluster: 001, Cont: 002

Conti, Stan

Record ID (Multiple Credentials) Personal Card/Ridge Settings Data Fields 1 Data Fields 2 Photo Badging Alarm Panel User / LCD Message Notes

2 Reports Select Card Card 1 Add New Delete Add/Delete T/A Punches

Common ID G3001

Record Type

Last Name Cont

First Name Stan

Middle Name R

Customer

Telephone 9846379688

Department Test Department

Card Data

Card Description Card 1

Card Technology P.I.V.

Agency Site Credential 12 1 120120

PIN / Card Role 00014 Access Control

Expiry Date 1/26/2024

Card Options

- ☐ Card Disabled
- ☐ Card Reversed
- ☐ PIN Exempt
- ☐ Auxiliary Function Enabled
- ☐ Passback Exempt
- ☒ Active Date

Enroll in MarsholManager

Badge Settings Dossier Settings

Print Preview

Print Limit 0 Print Count 0

Last Printed

Loop/Cluster Settings ASSA DGR Authorizations

Edit Loops View Audit

Authorized Loops

Default Cluster

Access Profile

Test

Select Access Groups

- Company Access
- Parking Access
- Parking Access
- Parking Access

Defer to Server for Access Decision:

Never Defer to Server

Action if Server Does Not Reply:

Follow Panel Decision

Command Scripts

Can Toggle Lock-Unlock State (835 only)

Groups

System Galaxy Access Groups are mapped to Groups in XPressEntry.

XPressEntry Groups

File Tools View Logout Entry/Exit

Entry/Exit Muster Activity History Messages Add/Edit Info Logs

External Record:1:1

Users Companies Groups Zones Doors Readers Roles Timezones Muster Sites

Filter:

- All Access
- Default Cluster: ** NO ACCESS GROUP **
- Default Cluster: ** UNLIMITED ACCESS **
- Default Cluster/Company Access
- Default Cluster/Parking Access
- No Access

Name

Default Cluster/Company Access

☐ In Default Group ☐ Group Allows Reader Login

Readers Zones Holidays

Readers

Cluster: 001, Cont: 001, Bnd: 1, Sect: 1-0

Cluster: 001, Cont: 001, Bnd: 1, Sect: 2-0

Cluster: 001, Cont: 002, Bnd: 1, Sect: 1-0

Cluster: 001, Cont: 002, Bnd: 1, Sect: 2-0

Cluster: 001, Cont: 002, Bnd: 2, Sect: 1-0

Cluster: 001, Cont: 002, Bnd: 2, Sect: 2-0

Handheld 1

Handheld 2

Server Reader: DESKTOP-G30M7MD

Timezones

** ALWAYS **

** NEVER **

Strength Test Time Schedule

Test Time Schedule - Morning

Selected

Cluster: 001, Cont: 001, Bnd: 1, Sect: 1-0 (Test Time Schedule - Morning)

Cluster: 001, Cont: 001, Bnd: 1, Sect: 2-0 (** ALWAYS **)

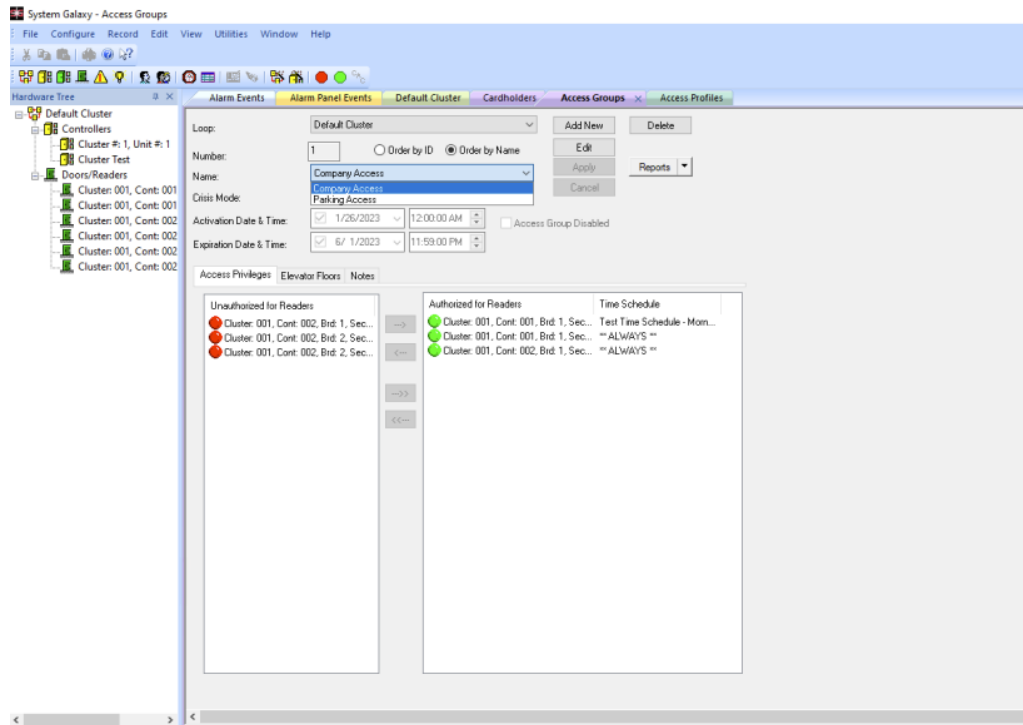
Cluster: 001, Cont: 002, Bnd: 1, Sect: 1-0 (** ALWAYS **)

Add New Delete Save Cancel

Time to Read 6 Records: 0.02 seconds

Activity Occupancy Partial Full Total Occupancy: 2 Inside 1 Zone 0 Unread Messages Service Running Locally

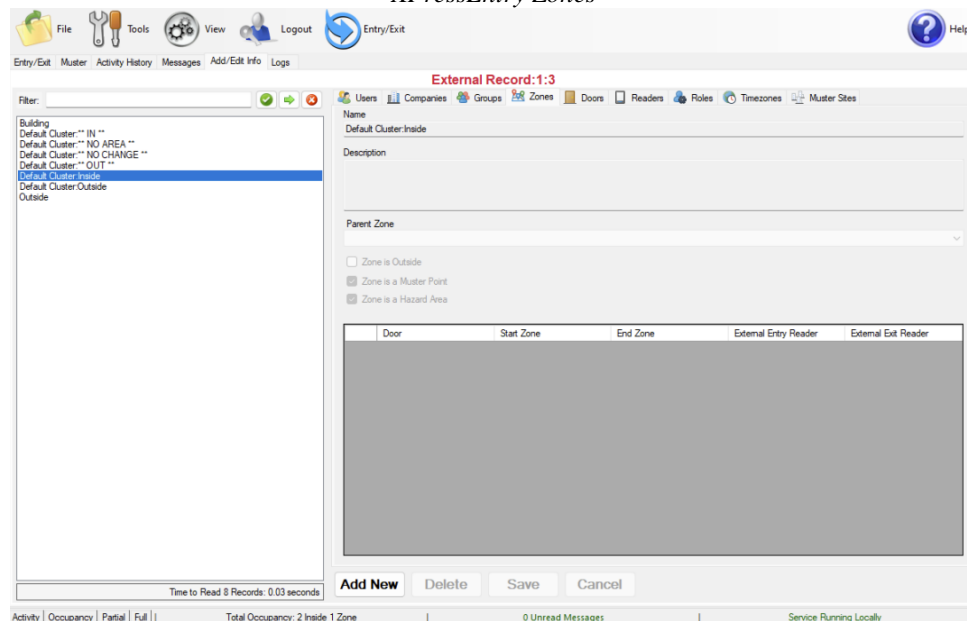
System Galaxy Groups



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

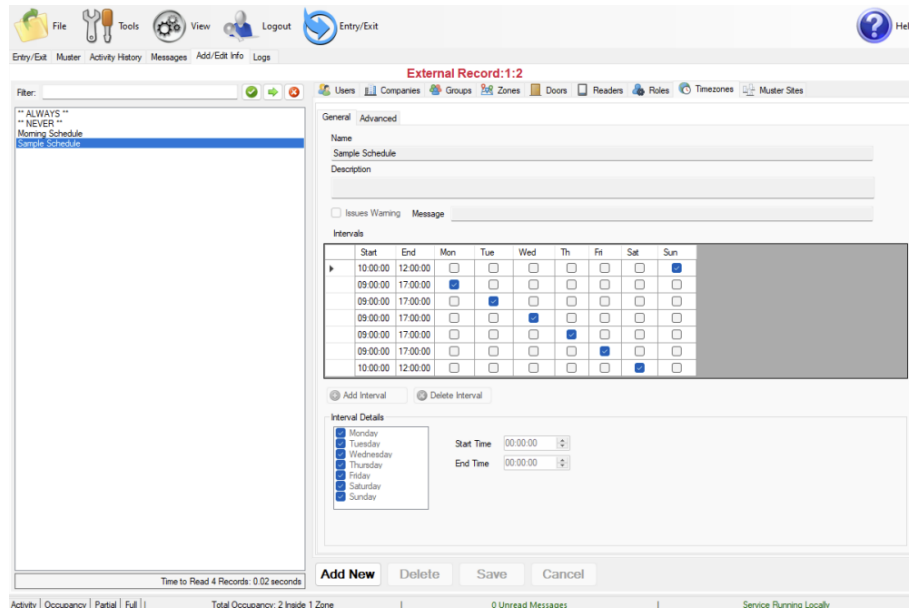


Timezones

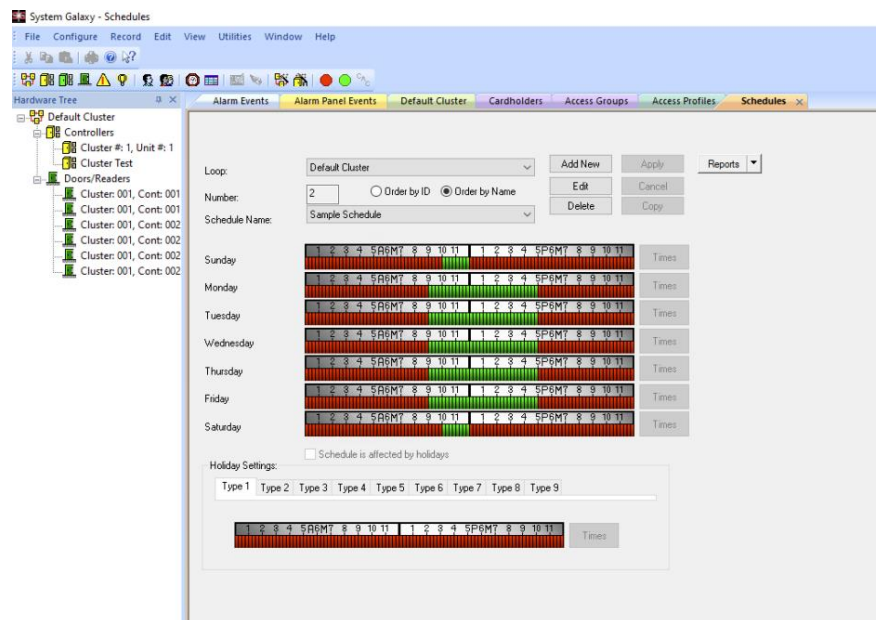
Timezones are pulled from System Galaxy **Time Schedules** in XPressEntry. Timezones should be available to view in the **TimeZones** tab under **Add/Edit Info**.

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

External Record:1:1:1680134400000

Filter:

Feb 28 Holiday
March 2 Holiday
Test holiday

Name
Test holiday

Description
Type 1

Start Date
30 Mar 2023 00:00:00 ☐ Repeats every year

End Date
30 Mar 2023 23:59:24

Add New Delete Save Cancel

Time to Read 3 Records: 0.02 seconds

Activity | Occupancy | Partial | Full | Total Occupancy: 2 Inside 1 Zone | 0 Unread Messages | Service Running Locally

System Galaxy Holidays

System Galaxy - Holidays

File Configure Record Edit View Utilities Window Help

Hardware Tree Alarm Events Alarm Panel Events Default Cluster Cardholders Access Groups Access Profiles Schedules Holidays

This information is only applicable to Loops/Clusters that are configured to use the 15 minute / legacy based scheduling mode.

Loop:
Default Cluster

Date	Description	Holiday Type
2/28/2023	Feb 28 Holiday	Type 1
3/2/2023	March 2 Holiday	Type 2
3/30/2023	Test holiday	Type 1

Calendar view showing months from March 2023 to June 2023.

Holiday Type: Type 1 Edit Types

Description: Test holiday

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.

The screenshot shows the 'External Record:1:1' window in XPressEntry. On the left, a list of doors is displayed, including 'dr_Cluster: 001, Cont: 001, Bld: 1, Sect: 1-0' and 'Test Door'. The main area on the right is a form for configuring a door. The 'Door Name' field is set to 'dr_Cluster: 001, Cont: 001, Bld: 1, Sect: 1-0'. The 'Start Zone' is set to 'Default Cluster Outside' and the 'End Zone' is set to 'Default Cluster Inside'. The 'Door RFID Tag#' field is empty. The 'External Entry Reader' is set to 'Cluster: 001, Cont: 001, Bld: 1, Sect: 1-0' and the 'External Exit Reader' is set to 'Cluster: 001, Cont: 001, Bld: 1, Sect: 2-0'. Both reader fields have a small 'X' button next to them. At the bottom of the form are buttons for 'Add New', 'Delete', 'Save', and 'Cancel'. The status bar at the bottom shows 'Activity | Occupancy | Partial | Full |', 'Total Occupancy: 2 Inside 1 Zone', '0 Unread Messages', and 'Service Running Locally'.

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.