

XPRESSENTRY

XPressEntry / Maxxess

Revision 08/20/2023

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 an eFusion 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

1. Maxxess eFusion version 6.3+
2. eFusion Web API License
3. eFusion ExternalOfflineReader License
4. XPressEntry 3.3+
5. XPressEntry License with Maxxess Feature Enabled

Setting Up eFusion to Synchronize with XPressEntry

It is assumed that eFusion is installed. You must first install the **Maxxess Web API** and **enable External Offline Readers** in the Maxxess System.

Order of Operations

1. Setup eFusion Data and Settings
2. Enable XPressEntry Synchronization
3. Set up XPressEntry Data

Setup eFusion Data and Settings

Enable ExternalOfflineReader

1. Go to eFusion Service Manager. Click **Setup > Integrators**.
2. Expand **Installed Integrators**, and right click ExternalReaderOffline. **Select New Integrator**. If you do not see this, please reach out to your Maxxess rep or integrator.
3. Save The new **ExternalReaderOffline**.

**Note: Make sure the Debug value is set to 0, or events may not be sent to Maxxess Transaction logs.*

Figure 1 – Service Manager Integrator

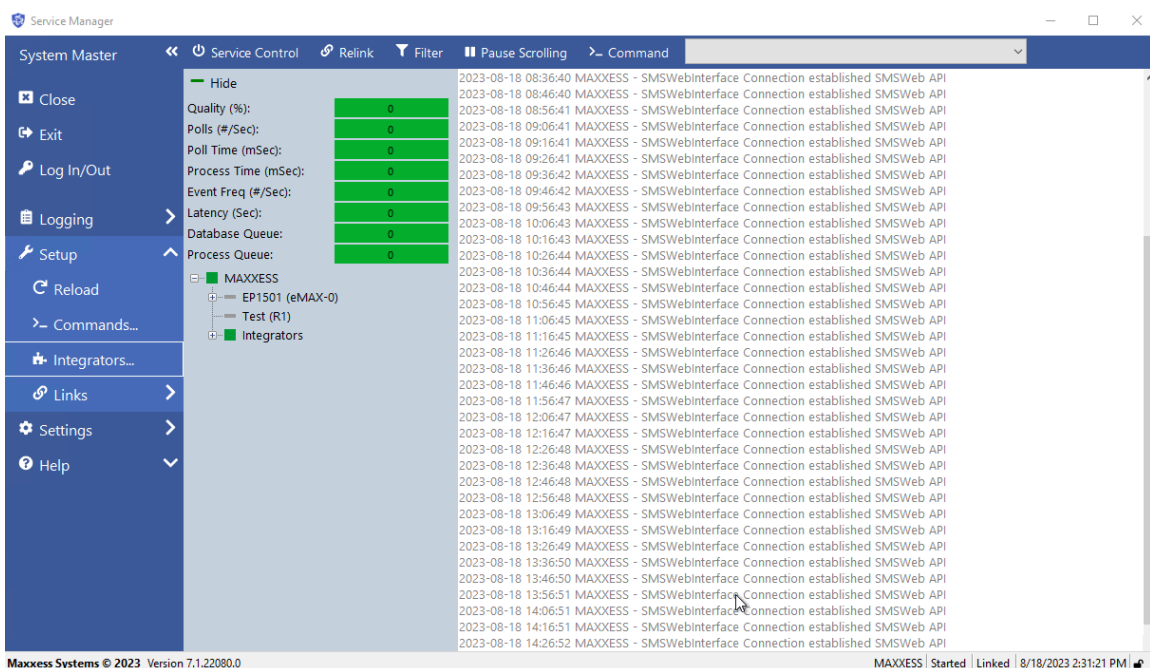
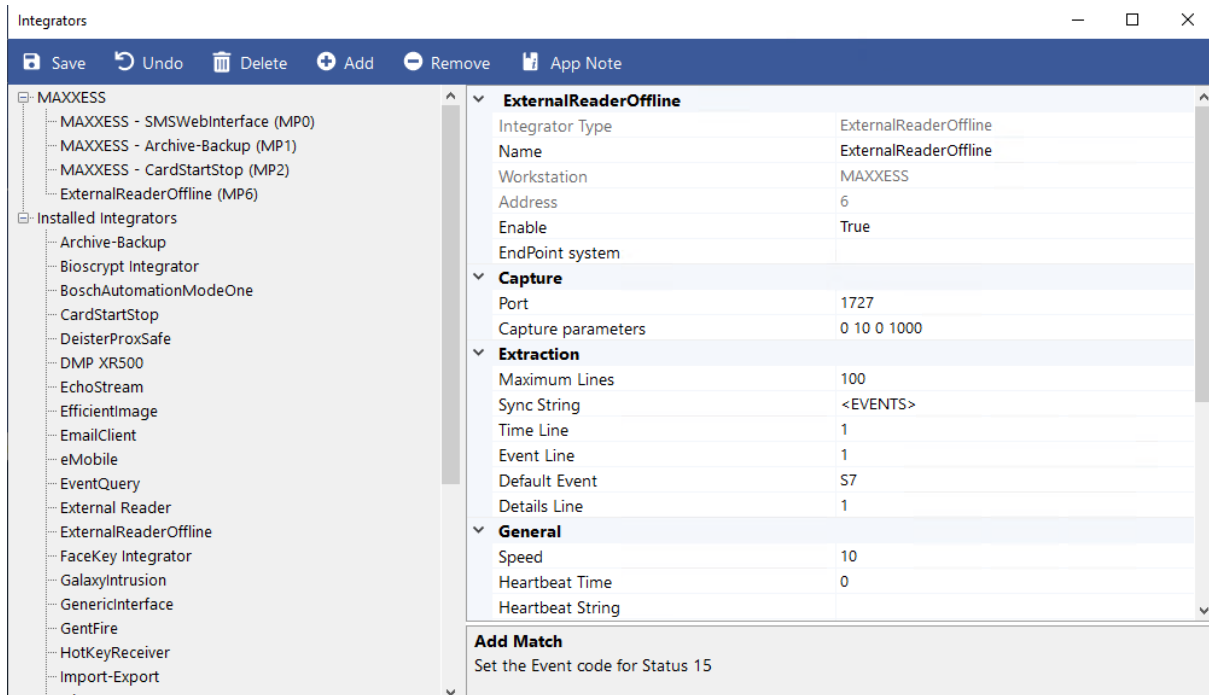


Figure 2 – ExternalReaderOffline



Operator

1. Set up an operator for the XPressEntry synchronization. This operator can be an **existing operator**, or a **specific account** used as a service account specially for XPressEntry.
2. From the eFusion menu at the top, select **Configuration > Operator Privileges**.
3. If adding a new operator, select **New**. Add a name, username, and password. Enable **Administrator** checkbox. Click Save.

Figure 3 – eFusion Operator Privileges

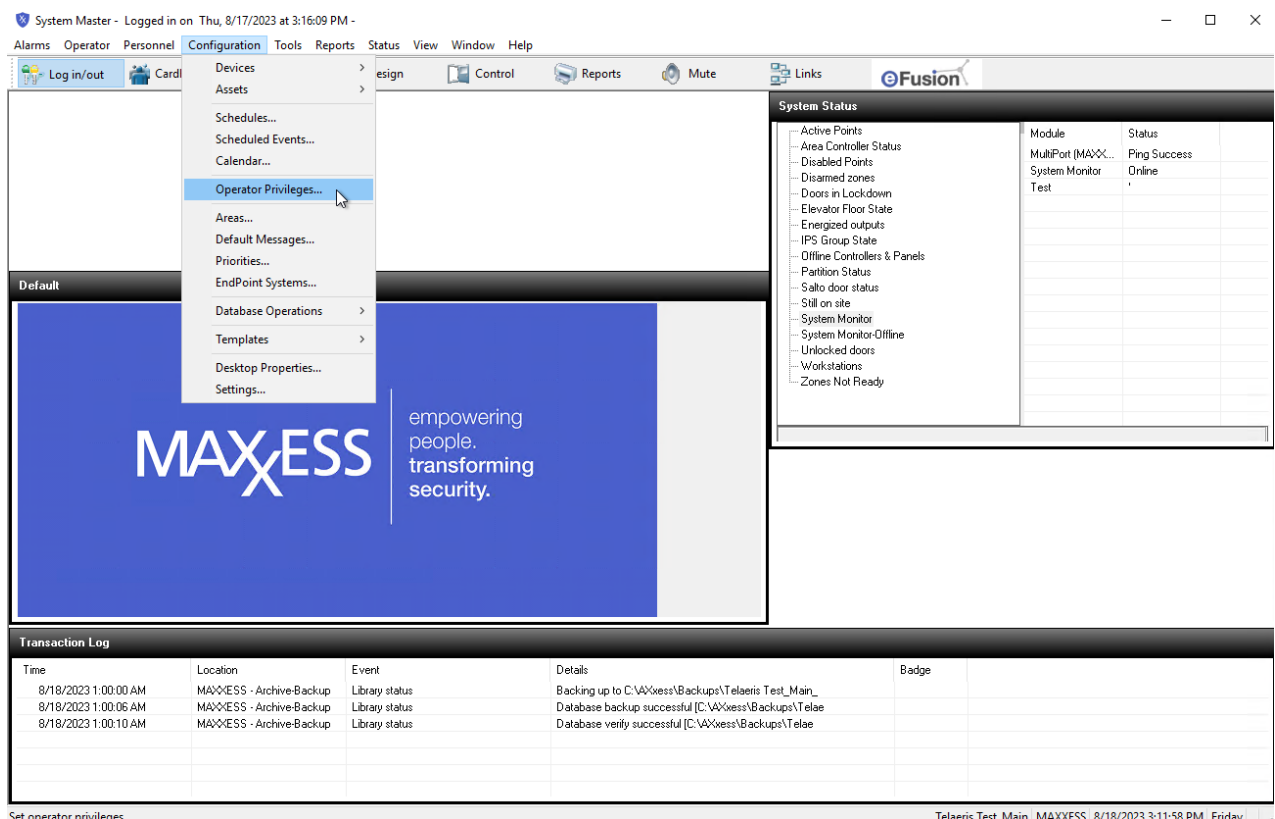


Figure 4 – Operator Configuration

The screenshot shows the 'Configuration' window with the 'Operators' tab selected. On the left, a list of operators is shown, with 'telaeris' selected. On the right, the configuration fields for 'telaeris' are displayed:

- Name: telaeris
- User name: Telaeris
- Password: [Redacted]
- Language: _Default
- Email: [Redacted]
- Password expiration: 12/31/2100
- Operator expiration: 12/31/2100
- Partition: _None
- Plan: _Default
- Schedule: 24 hour

Buttons on the right include New, Delete, Save, Cancel, Copy, and Options... The 'Save' button is highlighted with a mouse cursor. At the bottom are Close and Help (F1) buttons.

Area Controller

1. Select Area Controllers under **Configuration > Devices > Area Controllers**.
2. Add a new Area Controller. You may name it **XPressEntry** or anything to identify the controller's association to the XPressEntry system.
3. Set the Type to **Telaeris**. Click Save.

Figure 5 – eFusion Area Controllers

The screenshot shows the 'System Master' interface. The 'Configuration' menu is open, and 'Area Controllers...' is selected. The 'System Status' panel on the right shows the following data:

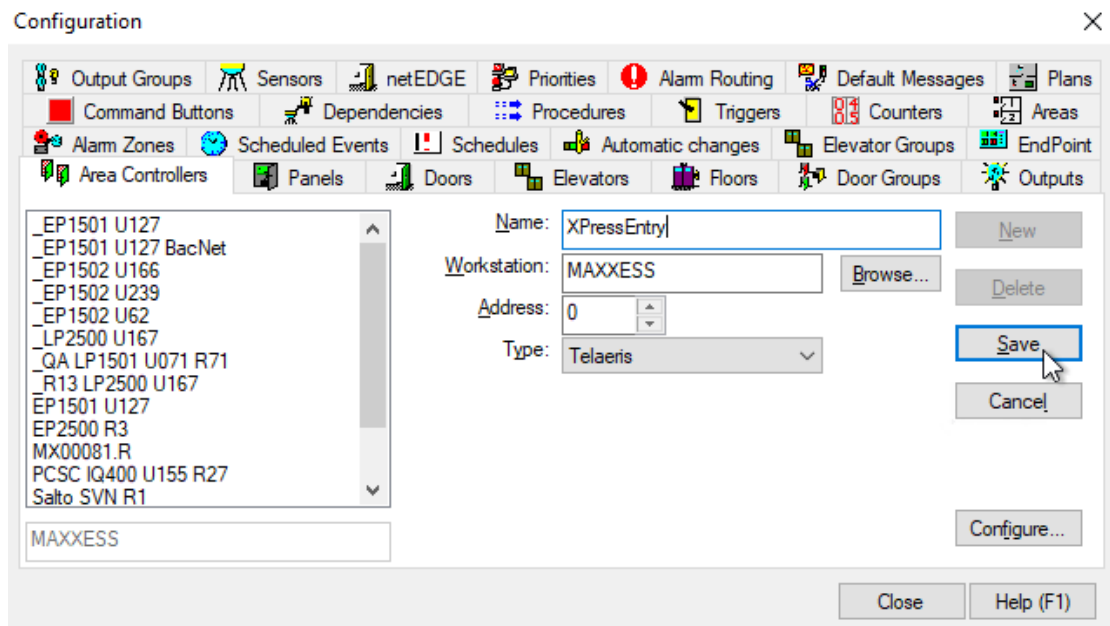
Module	Status
MultiPort (MAXX...)	Ping Success
System Monitor	Online
Test	

The 'Transaction Log' at the bottom shows the following entries:

Time	Location	Event	Details	Badge
8/18/2023 1:00:00 AM	MAXXESS - Archive-Backup	Library status	Backing up to C:\V\Xess\Backups\Telaeris Test_Main_	
8/18/2023 1:00:06 AM	MAXXESS - Archive-Backup	Library status	Database backup successful [C:\V\Xess\Backups\Telaeris Test_Main_]	
8/18/2023 1:00:10 AM	MAXXESS - Archive-Backup	Library status	Database verify successful [C:\V\Xess\Backups\Telaeris Test_Main_]	

The status bar at the bottom indicates: 'Configure the Area Controllers' and 'Telaeris Test_Main | MAXXESS | 8/18/2023 3:13:45 PM | Friday'.

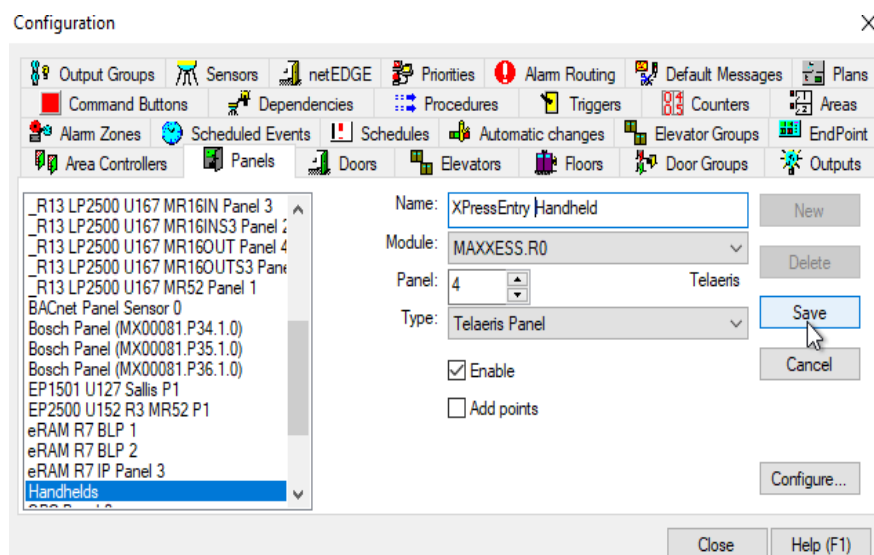
Figure 5 – Area Controllers Configuration



Panels

1. Create a new Panel and give it a name.
2. Set the Type to **Telaeris Panel**. Telaeris Panel allows the creation of up to **50** entry and exit readers. Select **Enable**.
3. If you would like to create the max number of readers, select **Add Point**. If not, make sure to unselect the checkbox. Click Save.

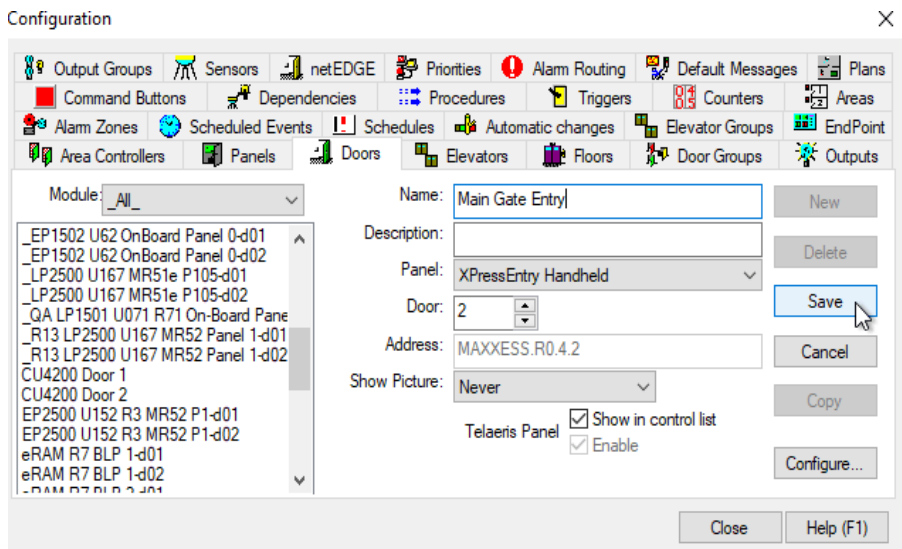
Figure 6 – Panels Configuration



Doors

Create doors in eFusion. You can create as many doors as needed. One for Entry and one for Exit is common per door. Add a name, select the **XPressEntry Panel**. Click Save.

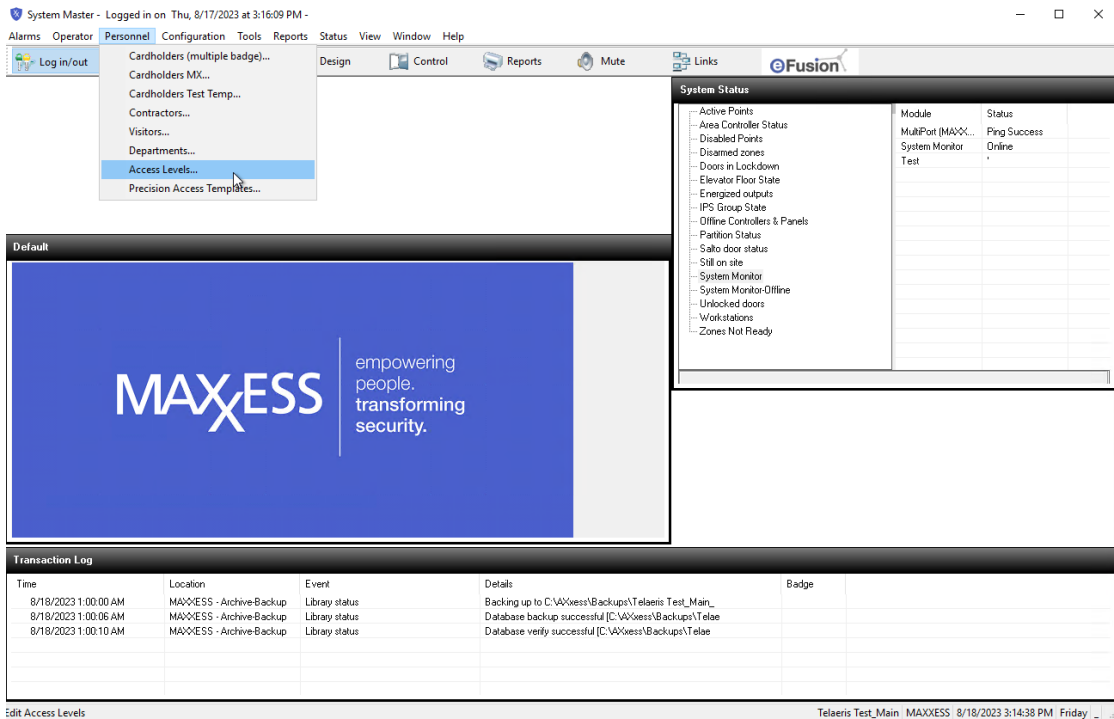
Figure 6 – Doors Configuration

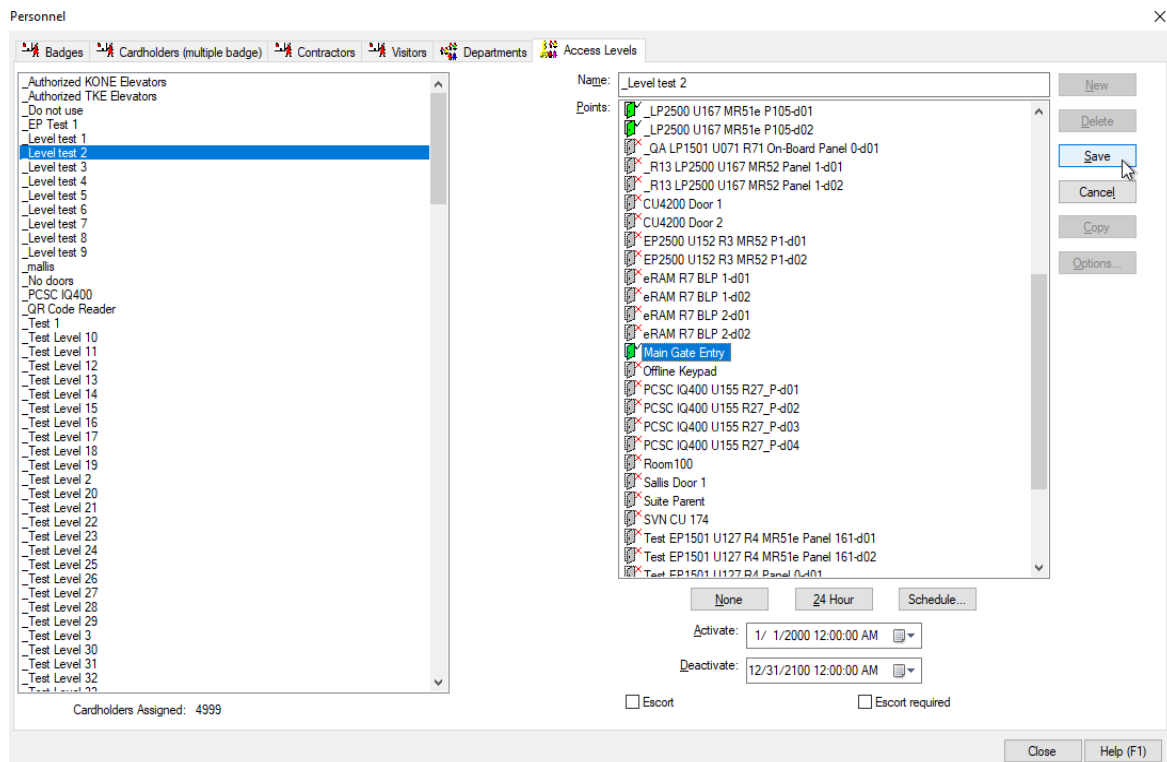


Access Levels

Add the new doors to the required access level. Select Access Level under **Personnel > Access Levels**.

Figure 8 – Adding Doors to Access Levels

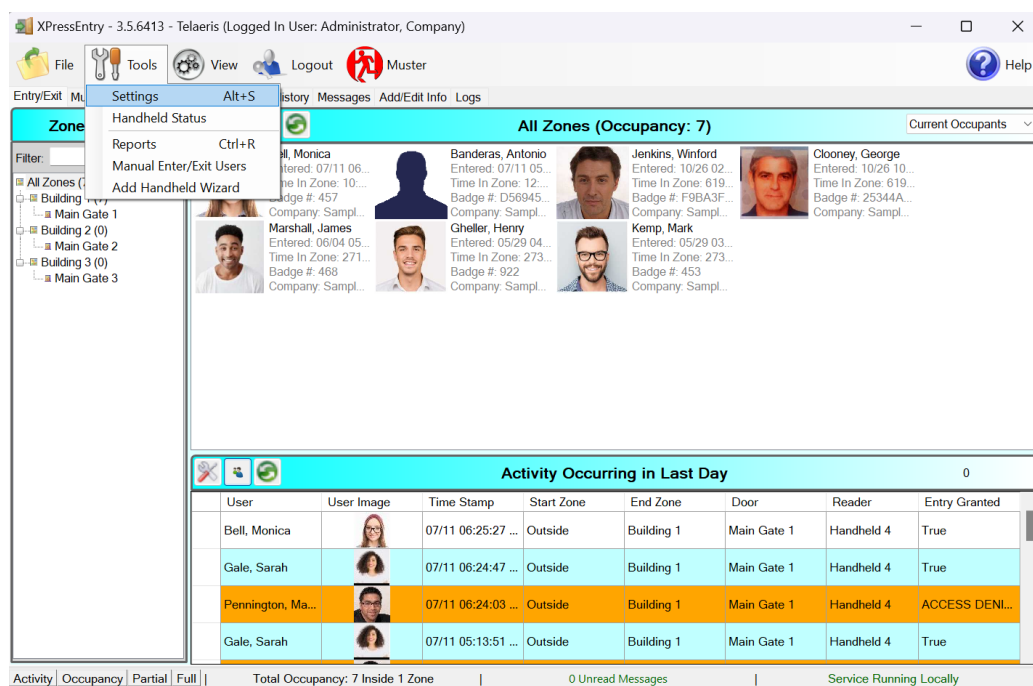




Enable XPressEntry Synchronization

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

Figure 8 – XPressEntry



Data Manager Tab

From the Settings page select the Data Manager Tab.

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

Figure 9 – Data Manager

The screenshot shows the 'Data Manager' configuration window. On the left is a tree view with categories like General, Server, Database, Data Manager, and Reader Profiles. The 'Data Manager' category is expanded, showing sub-items like MAXXESS, Software Event Viewer, and various reader profiles. The main area has a 'Type' dropdown set to 'MAXXESS', an 'Add' button, and a 'Remove' button. Below this is a 'Name' field with 'MAXXESS' and a 'Prefix' field. A large text area below shows 'MAXXESS - Prefix(MAXXESS)'. At the bottom right, there is a 'Sanity Check Data' button and 'Save' and 'Cancel' buttons.

Sync Timers

XPressEntry uses Timers to pull eFusion Data into XPressEntry.

Figure 10 – Enabled Data Manager + Sync Timers

This screenshot shows the 'Data Manager' configuration window with the 'Sync Timers' and 'Sync Options' sections. The 'Enable Data Manager Type: MAXXESS' checkbox is checked. The 'Sync Timers' section has a 'Disable Concurrent Syncs' checkbox. The 'Sync Options' section has a table with frequency settings and 'Set', 'Clear', and 'Now' buttons. At the bottom is a 'Data Manager Live Log View' section with a log of system messages.

Sync Option	Frequency	Set	Clear	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

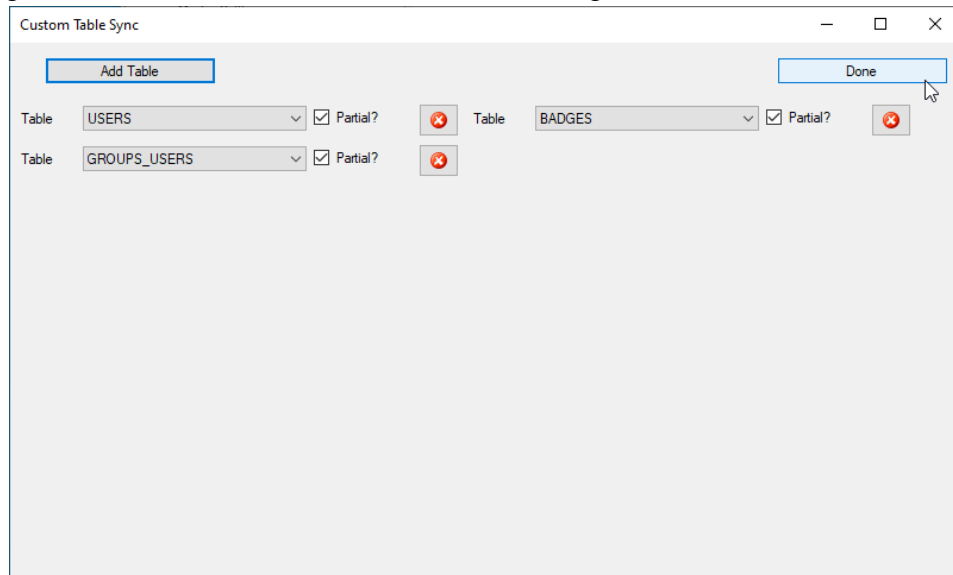
The log at the bottom shows the following messages:

```

DEBUG: DataManager Settings Updated
VERBOSE: DB Query for deleted records: SELECT id, external_id from udfs WHERE external_id is not null AND external_id <> " AND external_id LIKE 'MAXXESS: %' AND deleted_at IS NULL
INFO: UDFs Updated 1
DEBUG: udfs Updated 1/1
DEBUG: udfs Updated 0/1
DEBUG: Updating UDFs
DEBUG: DataManagers Restarted
DEBUG: DataManagers Restarted
    
```

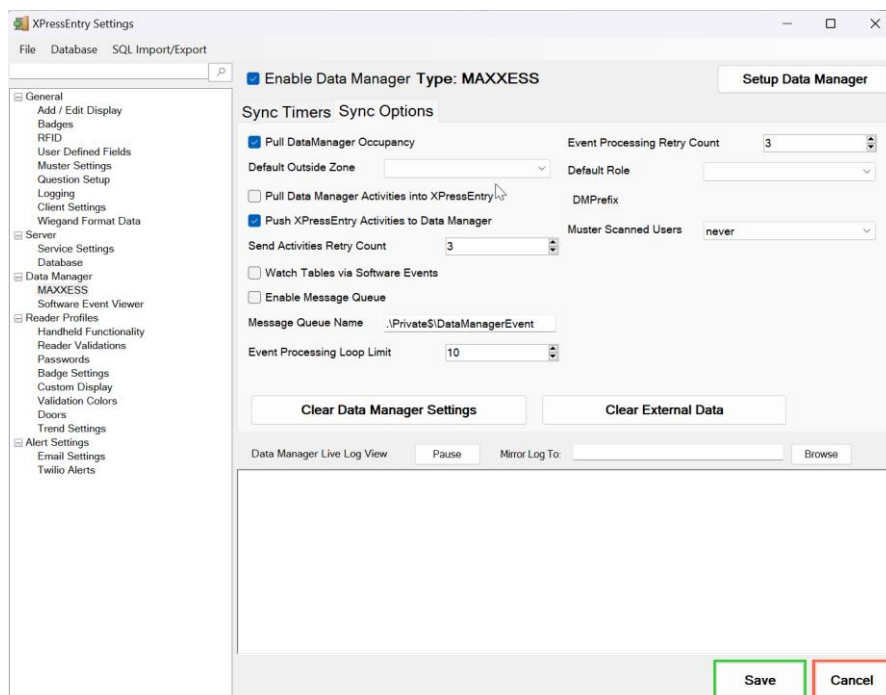
1. **Download Activity Frequency** – Pulls reader scan records into XPressEntry and stores them in XPressEntry's activity table. This function also updates the zone occupancy.
2. **Occupancy Sync Frequency** – Updates the zone occupancy without storing the activity records.
3. **Partial Sync Frequency** – Pulls all data excluding cardholder data, including readers, areas, access levels.
4. **Full Sync Update Frequency** – Updates all tables by pulling all necessary records from eFusion. 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**. For a Maxxess integration, it is recommended to set the following:



Sync Options

Figure 11 – 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 eFusion.
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 Maxxess specific settings.
8. **Clear DataManager Settings** – Resets all settings on the two above tabs, as well as the Maxxess specific settings.
9. **Clear External Data** – Deletes all data synced from Maxxess from the XPressEntry Database.

eFusion Data Manager Setup Page

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

Figure 12 – eFusion Data Manager Setup

Maxxess Data Manager Setup

Server IP: localhost

Server Port:

Events Port: 1727

Username: Telaeris

Password:

Page Size: 1000

☒ Use SSL ☐ Validate SSL Cert

☐ No Emp Pictures

☒ Use Cardholder Expiration Dates

☒ Sync Cardholders with UDFs

Emp Templates (Test Connect to Load List)

Test Connect Defaults OK

Status

User Mappings Badge Mappings

Source Columns Destination Columns

Source Field	XPressEntry Field
Source Field	XPressEntry Field

- a. **Server IP** – IP or Hostname of the eFusion server
- b. **Server Port** – Port of the eFusion server, if required. Leaving this blank is ok.
- c. **Use SSL** – SSL Encryption for eFusion and XPressEntry communication. This is recommended to be **checked**.
- d. **Validate SSL Cert** – Only check if there is a **signed certificate** in use with the eFusion System.
- e. **eFusion Login** – Login (username + password) info for eFusion Operator.
- f. **Page Size** – Set the page size per API query. This may depend on system specs and networking resources. Recommended Page Size is **1000**.
- g. **No Emp Pictures** – If checked, this will disable the picture sync of cardholders from eFusion.
- h. **Use Cardholder Expiration Dates** – If checked, this will set the XPressEntry badges to expire if a cardholder has an expiration date in eFusion.
- i. **Emp Template** – Add the cardholder template type. **Cardholders MX** is the common template used.
- j. **User Mappings** – Allows UDF fields from the Cardholder in Maxxess to be synced over to XPressEntry cardholder fields and User Defined Fields (UDFs).
 - i. Set your Source Column value (UDF Value from eFusion) to the Destination Column (Field in XPressEntry).
 - ii. Click the Plus Icon to Add it to the list below.
- k. **Badge Mappings** – Allows custom badge fields from the Badge in Maxxess to be synced

over to XPressEntry badge fields and Badge Defined Fields (BDFs).

- i. Set your Source Column value (BDF Value from eFusion) to the Destination Column (Field in XPressEntry).
 - ii. Click the Plus Icon to Add it to the list below.
- l. **Test Connect** – Test connection to the eFusion System. Connection Success will be displayed if a connection is established.
- m. **Defaults** – Reset all settings to the default.

XPressEntry Data

After setting up the data manager, run the initial **Full Sync** to pull data from eFusion. Once the eFusion 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 eFusion cannot be changed and is greyed out in XPressEntry without proper permissions.

Users

Here is a sample of a properly synchronized user:

Figure 13 – Users

XPressEntry - 3.5.6413 - Telaeris (Logged In User: Administrator, Company)

File Tools View Logout Entry/Exit Muster

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

Filter: []

Users Companies Groups Zones Doors Readers Roles Timezones Badge Types

User Permissions Contact Info UDFs/Misc

First Name Last Name MI
Monica Bell

Company Sample Company

Emp ID Visitor

Zone Building 1 Host

Zone Entry: 07/20 10:26:49 AM
Last Reader:

Role Entrant

Start Date

End Date

Photo FP

Change Crop Delete

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

Badge	BDF1	Activated Date	Expired Date	Invalid	Badge Type
457		5/27/2020			
752		5/20/2020			

Add New Delete Save Cancel

Time to Read 15 Records: 1.84 seconds

Activity | Occupancy | Partial | Full | Total Occupancy: 6 Inside 1 Zone | 0 Unread Messages | Service Running Locally

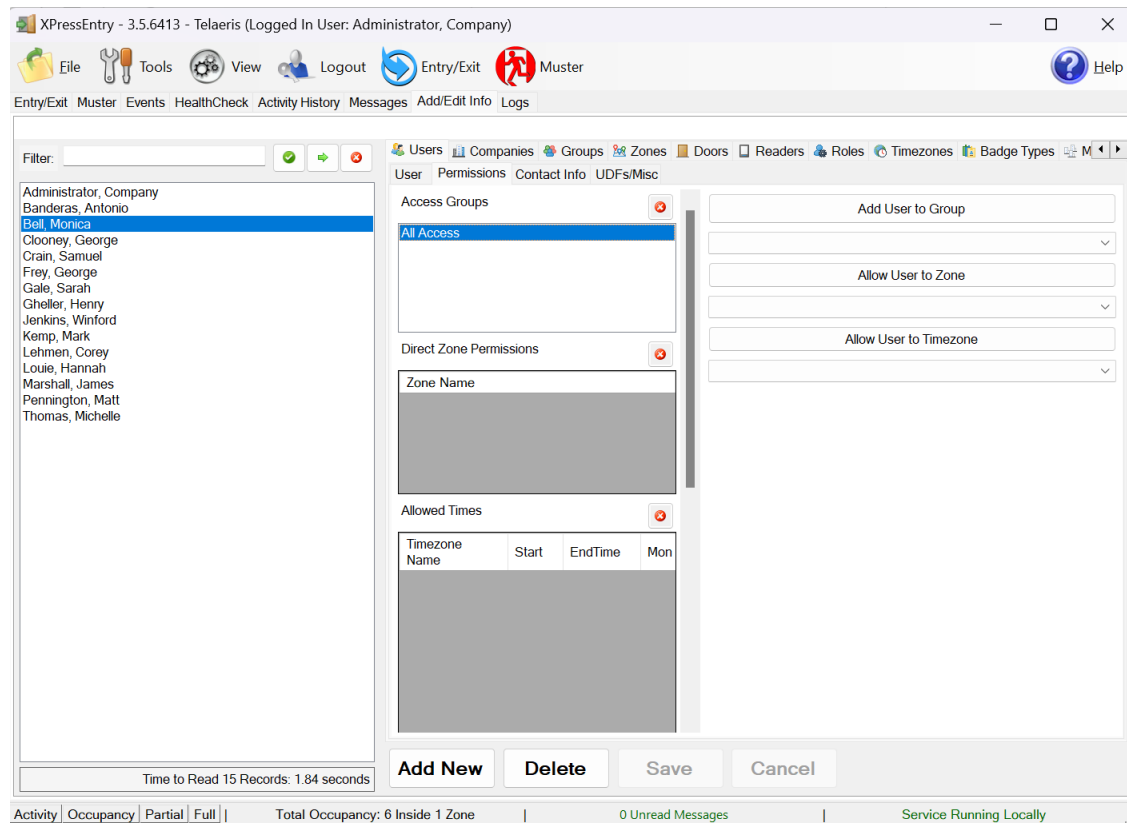
All External Records (From eFusion) will display in red as an **External Record** at the top of the form. This label will not display for any records that were created from within XPressEntry.

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

User Permissions

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

Figure 13 – Permissions



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 eFusion does not require additional start and end zones. If no zone is assigned, handheld activity will not populate to eFusion.

1. For each door, set the **start** zone to **Outside** and the **end** zone to **Building**. This helps to determine directionality.
2. For proper **occupancy tracking**, set the start and end zone to zones created in the **Zones tab**.
 - a. Start zone – The area the user will enter from.
 - i. **External Entry Reader** will be assigned to the eFusion Reader created for Entry.
 - b. End zone – The area end user will end up.
 - i. **External Exit Reader** will be assigned to the eFusion Reader created for Exit if there is one.
 - c. Attach the logical entry and exit door reader that you created in eFusion to a door. The readers are named based off the eFusion Door created.
 - d. You can also leave either the Entry or Exit reader blank if you are not utilizing the specific entry/exit mode.

File Tools View Logout Entry/Exit Muster Help

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

Filter:

Add Entry

Users Companies Groups Zones **Doors** Readers Roles Timezones Muster Sites

Door Name
Main Gate

Start Zone
Outside

End Zone
Building

Door RFID Tag #

External Entry Reader
Main Gate Entry

External Exit Reader

Add New Delete **Save** Cancel

Time to Read 1 Records: 0.01 seconds

Activity Occupancy Partial Full | Total Occupancy: 3 Inside 1 Zone | 0 Unread Messages | Service Running Locally

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

Entry/Exit activities will be sent to eFusion and display the results in the Transaction logs.

Maxxess Stores card numbers in a FacilityCode-CardNumber format. This means we need to show XPressEntry how those cards are formatted.

```
[Wiegand26]
Enabled = True
Reverse Byte Order = True
Number Bits = 26
Field 0 = Parity Even, 0, 1, LEFT_TO_RIGHT
Field 1 = Employee No, 1, 16, LEFT_TO_RIGHT
Field 2 = Facility Code, 17, 8, LEFT_TO_RIGHT
Field 3 = Parity Odd, 25, 1, LEFT_TO_RIGHT
Field 4 = Not Defined, 0, 0, LEFT_TO_RIGHT
Field 5 = Not Defined, 0, 0, LEFT_TO_RIGHT
Field 6 = Not Defined, 0, 0, LEFT_TO_RIGHT
Field 7 = Not Defined, 0, 0, LEFT_TO_RIGHT Parity Even Start = 1
Parity Even End = 12 Parity Odd Start = 13 Parity Odd End = 24
Output Format = %FACILITY CODE%-%EMPLOYEE NO%
```

