RF Code Setup Guide

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Overview

RF Code is a provider of hardware (RF and IR devices) that allows you to configure an RF Reader and IR Room Locators so that they can identify RF tags. The RF tags get a signal from the room locator, effectively allowing them to figure out "where" they are. They then report this information back to the RF Reader, and RF Code's Zone Manager uses rules-based logic to translate that into a precise location where that tag is located.

EIOBoard can integrate with RF Code (once the RF Code hardware and server are set up), allowing each user's location to be tracked in EIOBoard based on their physical location with an associated RF Code tag. For example, if a user is assigned a tag and moves to the Conference Room with that tag, the user's RF Code location in the EIOBoard Location will say "Conference Room".

Install RF Code Utilities

2.1 Download an Install the Latest Room Location Utility

http://support.rfcode.com/customer/portal/articles/716055-utilities-downloads

This includes the drivers you'll need once you plug into it via USB. Install the software as well. Then you can use the software to configure the room locator. You can then assign it a numeric code. You'll need this later so you can define a room/resource to that room locator, so effectively the system knows when a tag is in that room.

2.2 Download an Install the Latest Reader Configuration Utility

http://www.rfcode.com/Resources/Downloads/Applications-Firmware-Utilities.html

This includes the drives you'll need once you plug into with USB. Install the software as well. Then you can use the software to configure the reader. You'll want to set it's IP to something static. Then you'll want to configure a tag group to confirm the reader is seeing tags within the vicinity. Add group IRCODE and treatment ID of 4. Then you should be able to see real time updates from each of the tags. This only gives you confirmation that the tags are being read by the RF reader, this does not provide location-level identification.

2.3 InstallZone Manager on a Server

Run the setup provided for Zone Manager. Accept all defaults.
Ensure ports are open (by default it is 6580) or turn off Windows Firewall
Add Readers - Click on readers, then pull down in the drop down on the right and select your reader.

Zone Manager Setup

3.1   Connect to the RF Code Readers

The first thing that needs to be done in the Zone Manager is connect to the RF Code Readers. To do so, go to **Configuration** > **Readers**.

To add a reader, simply select a reader from the **Reader** drop down menu. Give the reader a unique **ID** (a display name) and specify any other settings as necessary. When you are finished, click **Save Changes** to add the Reader to the system.

3.2   Set Up Tag Groups

Next, you will be able to add a Tag Group. To do so, go to **Configuration** > **Tag Groups**, which will bring up the following window:

Click **New** to add a new reader. Choose the tag group that your tags belong to from the **Tag Group** drop down, give a unique **ID** (display name) to the group, and fill out the rest of the information as necessary. Add Tag Group - Click on Tag Groups, then click New, then pull down and choose Treatment 04H Tag Group. After everything populates, enter a Group ID, such as IRGROUP. The group code should automatically be assigned to IRCODE. Click Save Changes to apply.

You can now go to **Status** > **Tags** and start to see more info on the tags than what is shown in the reader's configuration. Information such as Motion and Low Battery can all be seen now. This will confirm that location manager is receiving info from the tags through the RF reader.

3.3 Define Locations and Rules

Now you need to define locations. Go to **Configuration** > **Locations & Rules** to bring up the following screen:

First of all, you need to create Locations, which represents the physical room locators that are set up. Click **New Location** to add a location (optionally, you may click an existing location to add a new sublocation under the existing location). Specify the name of the location and then click **Save Changes** to add the location to the list. Be sure to start with the highest level first when adding locations. For example, add "Main_Floor", "Second_Floor", and "Third_Floor". Then under the main floor, put "CONF_ROOM", "RM105", "RM106", etc. Then do the same thing for the any other floor.

Once you have created all locations, you will be able to add rules to the lowest level locations. Simply select the location and click **Add Rule**. Change the **Rule Type** to "Match by IR Locator". You'll want make the **ID** (display name) whatever you want to remember the rule by at a glance. Set the **Matching IR Locator** to the same ID you set when configuring the room locator for that room. Do this for all the other rooms that have room locators.

3.4 See the Rules at Work!

In zone manager, go to **Configuration** > **Tags** or (optionally) **Configuration** > **Tags by Location**. Now you should be able to see live updates of the location for each tag!

EIOBoard Server Setup

Now that RF Code is all set up, you can connect to the RF Code software through EIOBoard. First of all, you have configure the RF Code settings in the EIOBoard Server. To do so, go to **Management** > **Settings** > **RF Code** in the EIOBoard Server.
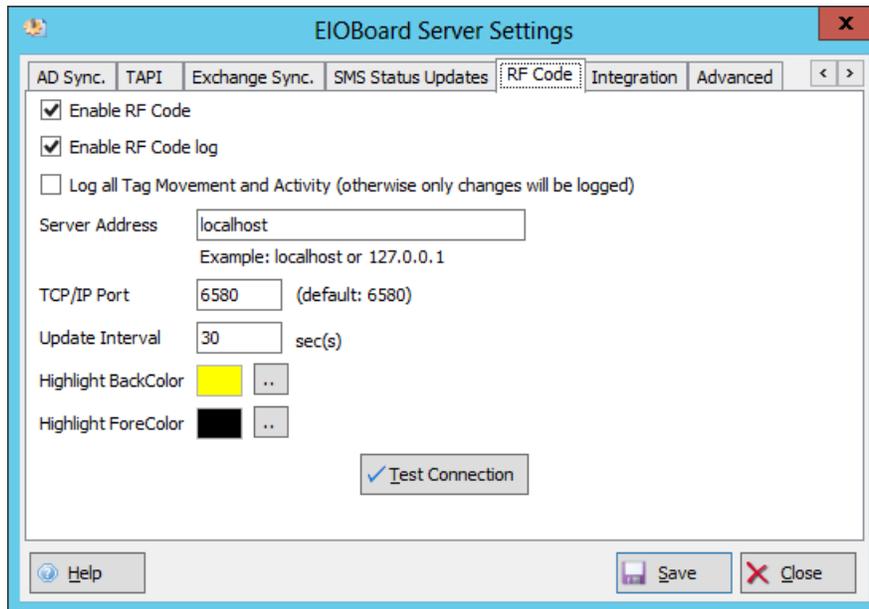
Check **Enable RF Code** in order to turn on RF Code. The **Server Address** must be filled out to specify the address of the RF Code server (which is "localhost" if the server is on the same machine as EIOBoard). The Update Interval is how often EIOBoard will check for updated information in the Zone Manager.

Once you are finished configuring RF Code Settings, click **Test Connection** to make sure that EIOBoard can successfully connect to the RF Code Server. Once it is connected, click **Save** and close the window.

Next, go to the RF Code tab in the main EIOBoard Server window. If EIOBoard is successfully connected, you will be able to see all the tags that were added in the RF Code Zone Manager. All their locations and other information will be updated according to the information in the Zone Manager, as seen below:

Once tags have moved from room to room, you will be able to see all updated information on this screen. Every box that has changed since the last update will be updated in the colors defined in the RF Code settings. To view a Tag's History, simply select the Tag and click **Show Tag History**. This will bring up the Tag History window, allowing you to filter Tag History by date or changes in Tag information:
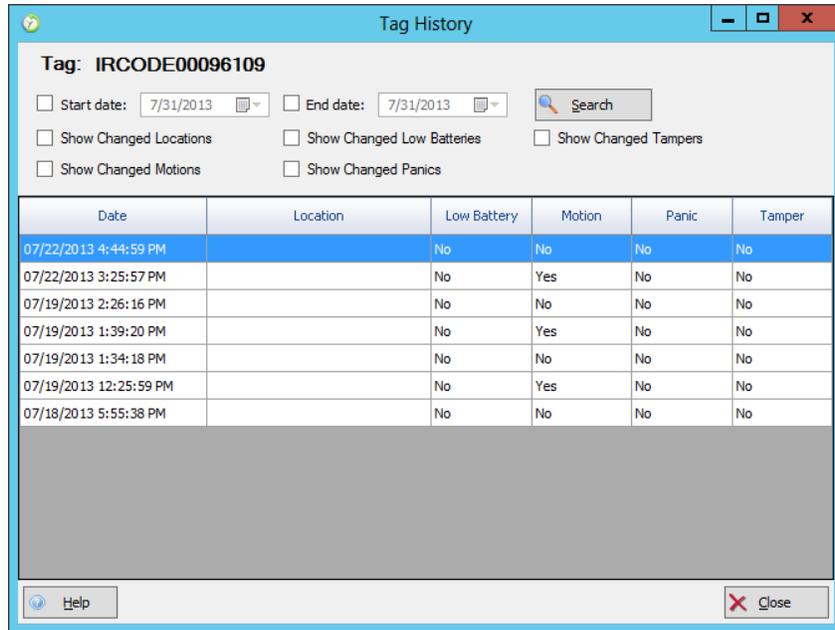
In the Locations tab, you will be able to see every location that you created in the Zone Manager. Each location's parent location (if any) will also show up in the right column. This screen is simply for viewing location information from the Zone Manager, as seen below:
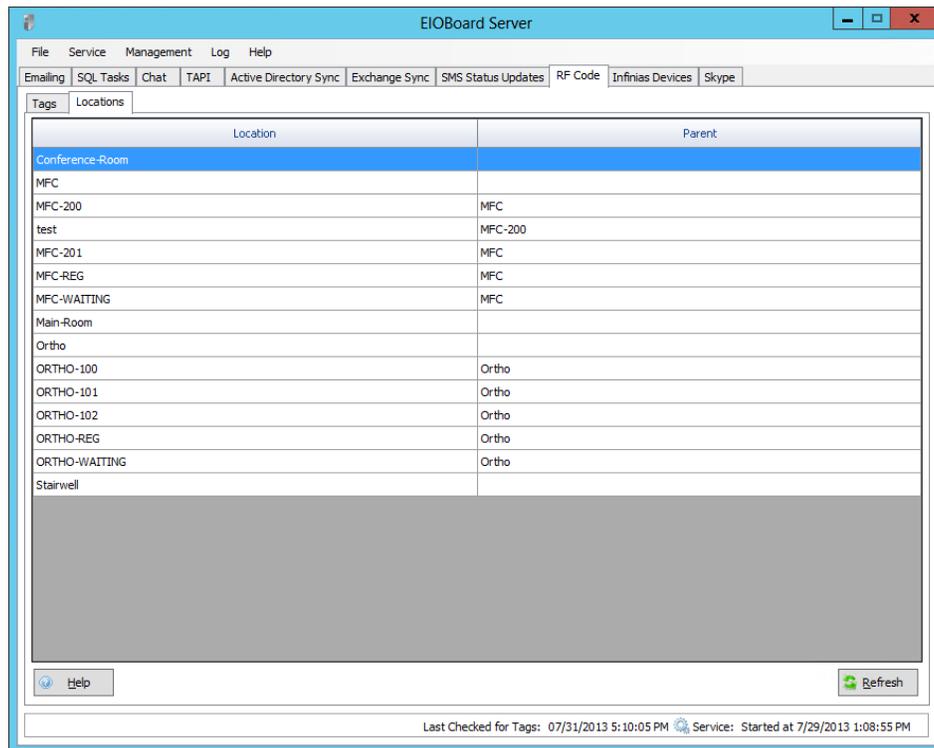
Using RF Code in the EIOBoard Application

In order to start using RF Code in the application, you need to assign a tag to a user. Any tag that can be seen in the Zone Manager can be assigned to a user in EIOBoard. To assign a tag, log in as an administrative user and right click the user to assign a tag to. Go to **Location** > **Assign Tag** to bring up the **Assign Tag** window:

In the **Tag ID** field, type in the ID of the tag you want to assign to this user. You can optionally type in the last couple of digits of the ID and search for all ID's that match those digits. Once you have selected the correct tag, click **Update** to assign the tag to the user.

To view the location history of a user, right-click on the user's username and go to **Locations** > **Location History**. This will bring up the Location History window (which can also be accessed from the Contact Details window):
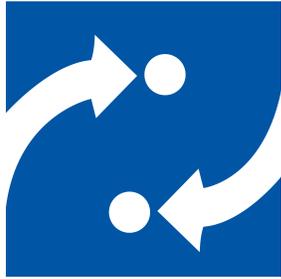
You can now view the **Location History** of this user based on the tag assigned to this user. You can filter by date, and all changes made manually will be highlighted in yellow. Manual changes can be made by going to **Locations > Set Location**, which will bring up the **Set Location** window:

Finally, any user can view tag information for any user right from the main EIOBoard status board. RF Code fields can be shown for each user by right-clicking the column headers and selecting the fields that you want to be shown. The following fields are available:

- **Tag**: The ID of the tag assigned to this user
- **Last Location**: The previous location that the user came from
- **Current Location**: The location the user is currently in
- **Motion Detected**: Indicates whether the tag is in motion
- **Panic Detected**: Indicates whether the tag's Panic Mode is detected
- **Last Motion Detected**: Shows the last time motion was detected for the tag
- **Last Panic Detected**: Shows the last time panic mode was detected for the tag
- **Location Updated**: Shows the date and time the user entered the current location

Thank you for choosing Savance!