

# RTI DoorBird Driver and SIP Configuration Guide

This guide is intended to help with the setup between RTI and DoorBird for proper SIP and driver communications when a SIP proxy server\* is not used.

First off, the driver will need to be configured according to the Get Info file included with the driver download, keeping in mind that a SIP user account should be set up with the DoorBird and the credentials provided for the SIP user should be used in the driver for proper speaker and mic volume adjustments of the DoorBird station through the driver.

Because of some new updates with the DoorBird firmware, RTI devices cannot call DoorBird stations if they are in a call or attempting to make a call, therefore when a doorbell event occurs something needs to reject the attempted call for the *VoIP Dial: IP Address* command from a UI to work. There is a temporary work around, but it will require one SIP enabled RTI device be set to DND in its VoIP settings, which will make the device also ignore intercom requests. Plan accordingly so that the device which is setup to automatically reject the call is not a device that is required for device to device intercom. RTI will be researching other ways to reject the incoming call when the system is configured as intended in this document.

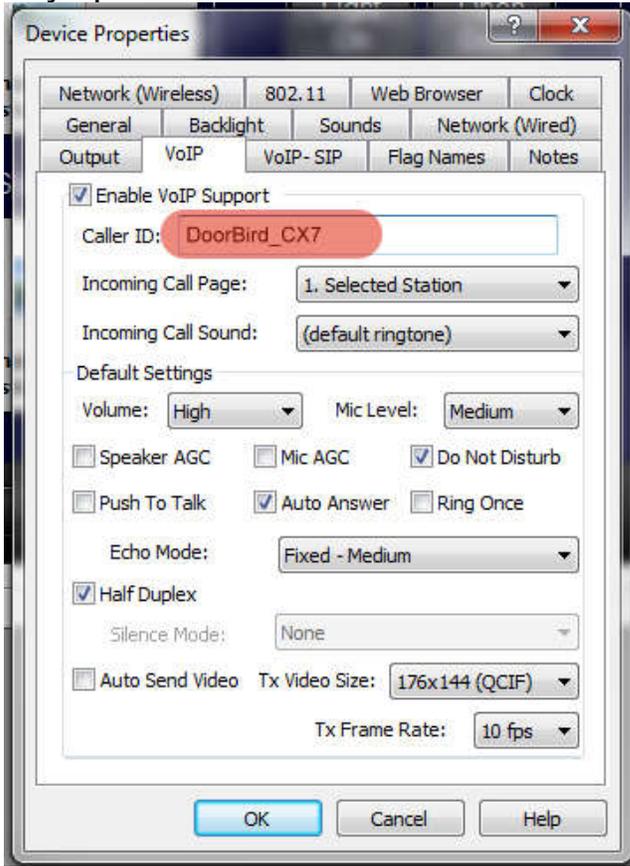
For an RTI VoIP/SIP enabled device to have the ability to call the DoorBird station, a few items need to be setup in Integration Designer and through the DoorBird app.

These items will be graphically outlined later in this document, but they will consist of giving each VoIP/SIP enabled RTI device a proper Caller ID name, enabling the Allow incoming calls selection in the DoorBird app, and adding the Allowed SIP Users to the DoorBird app.

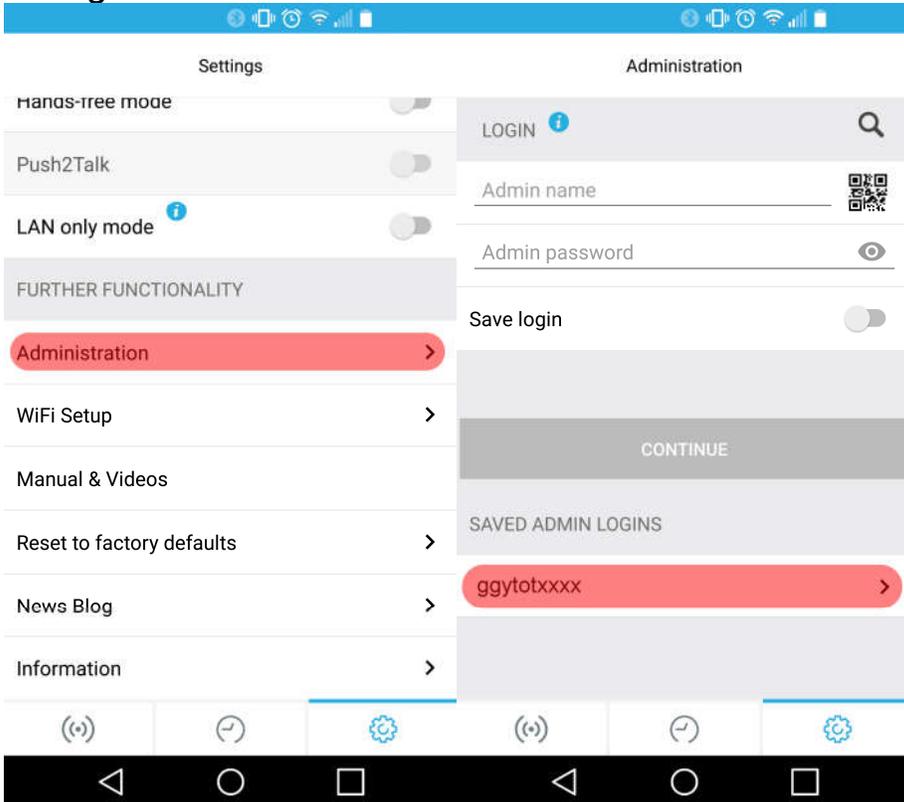
**Remember to save the settings whenever the DoorBird app prompt to save.**

\*Refer to the documentation provided by the SIP Proxy server/software for proper SIP configurations.

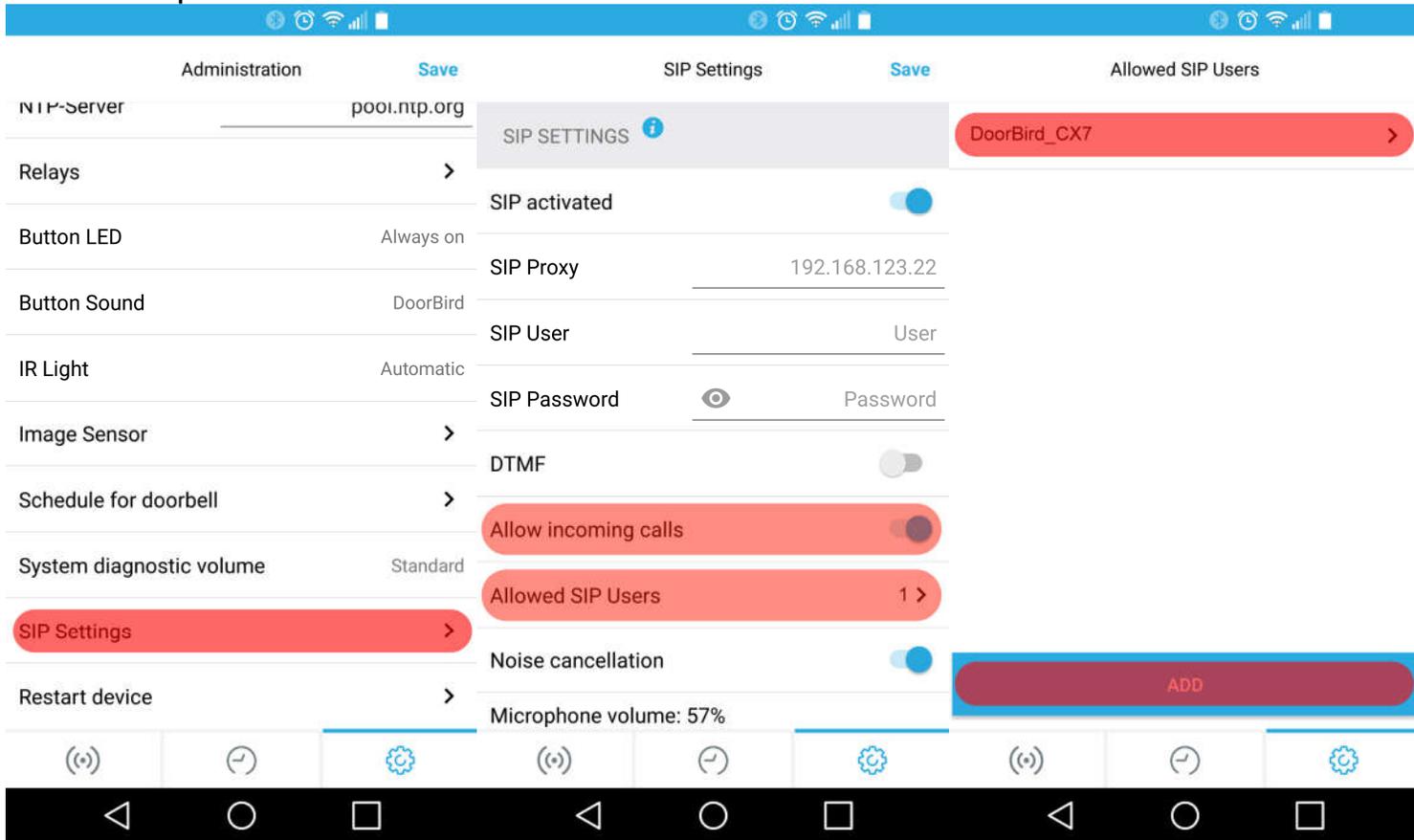
1. Give each VoIP/SIP enabled RTI device a Caller ID name. This name can be the same for simplicity of setting up the system, but only if the VoIP/SIP enabled devices are to communicate with DoorBird stations. If device to device VoIP intercom is also required in the system, a different name should be used for each Caller ID name. The compatibility requirements for the Caller ID names to be used with DoorBird are that there should not be any special characters which includes any white spaces.



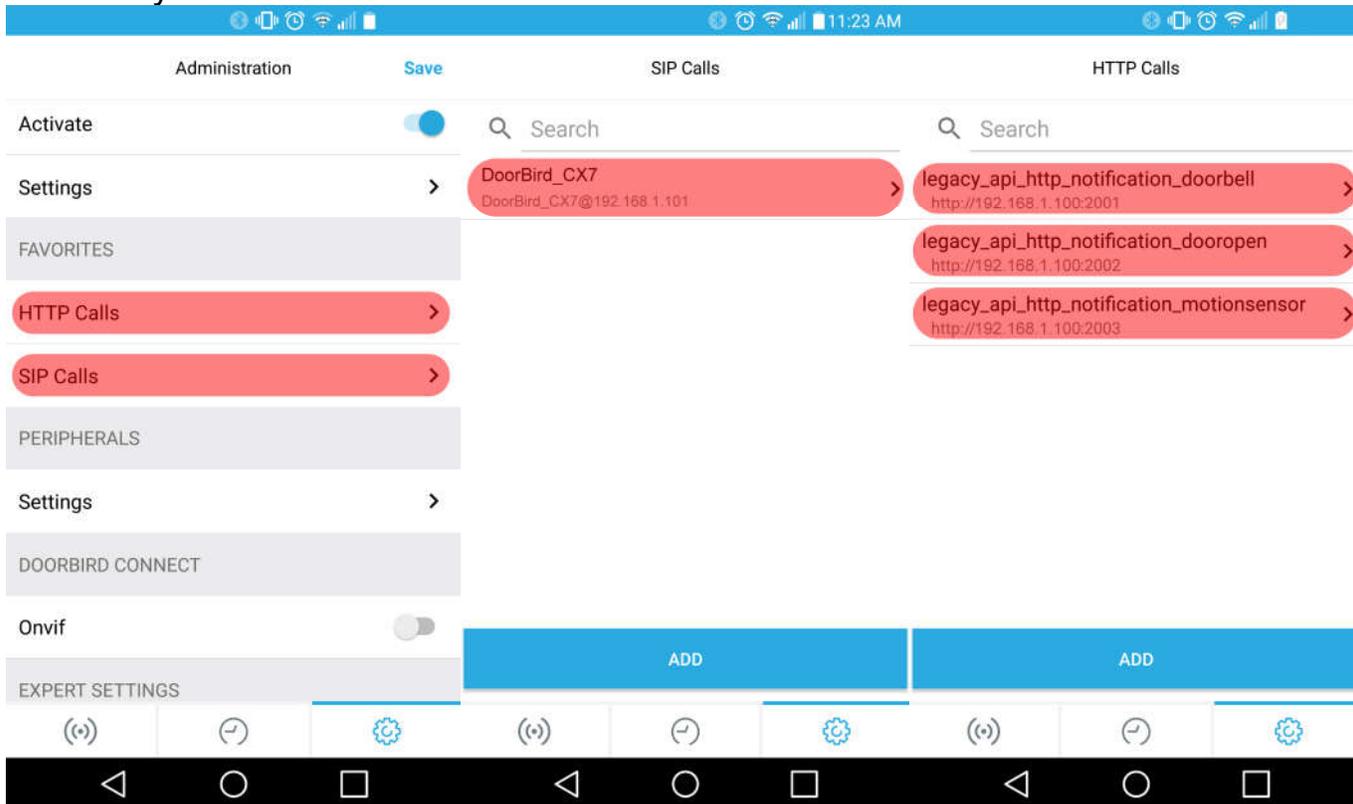
2. Login to the administration of the DoorBird APP.



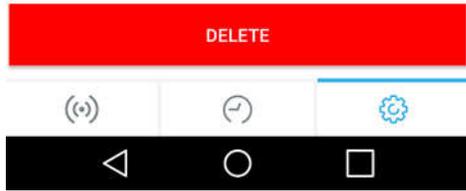
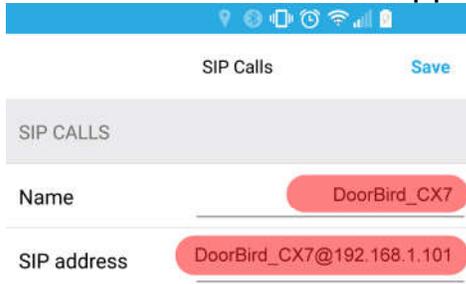
3. Enter the SIP Setting menu in the DoorBird app, enable Allow incoming calls and add the RTI SIP capable device Caller ID names in the Allowed SIP Users section.



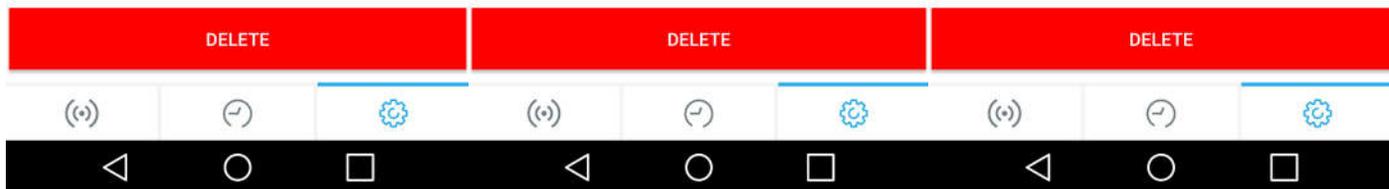
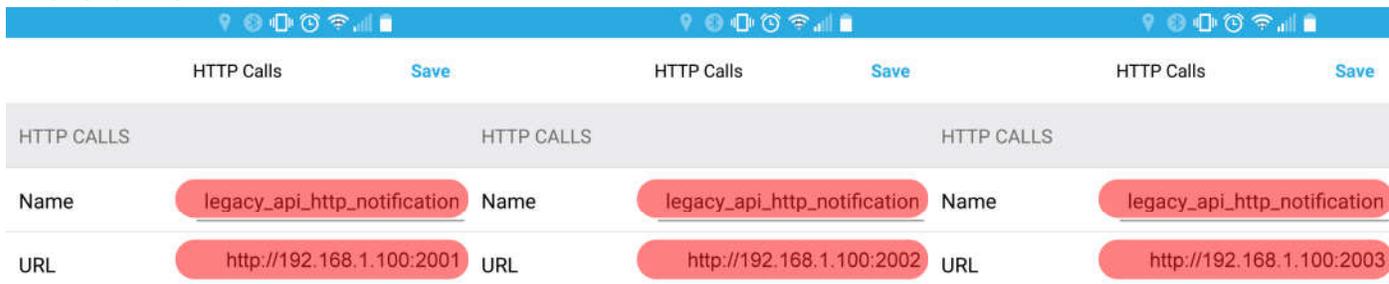
4. Next, check to see if any entries are within the HTTP Calls and/or SIP Calls sub-menus. If there are any entries, verify what they are. There should be one entry for the SIP Calls that has information of a specific RTI SIP capable device from the system, or the address of the SIP Proxy.



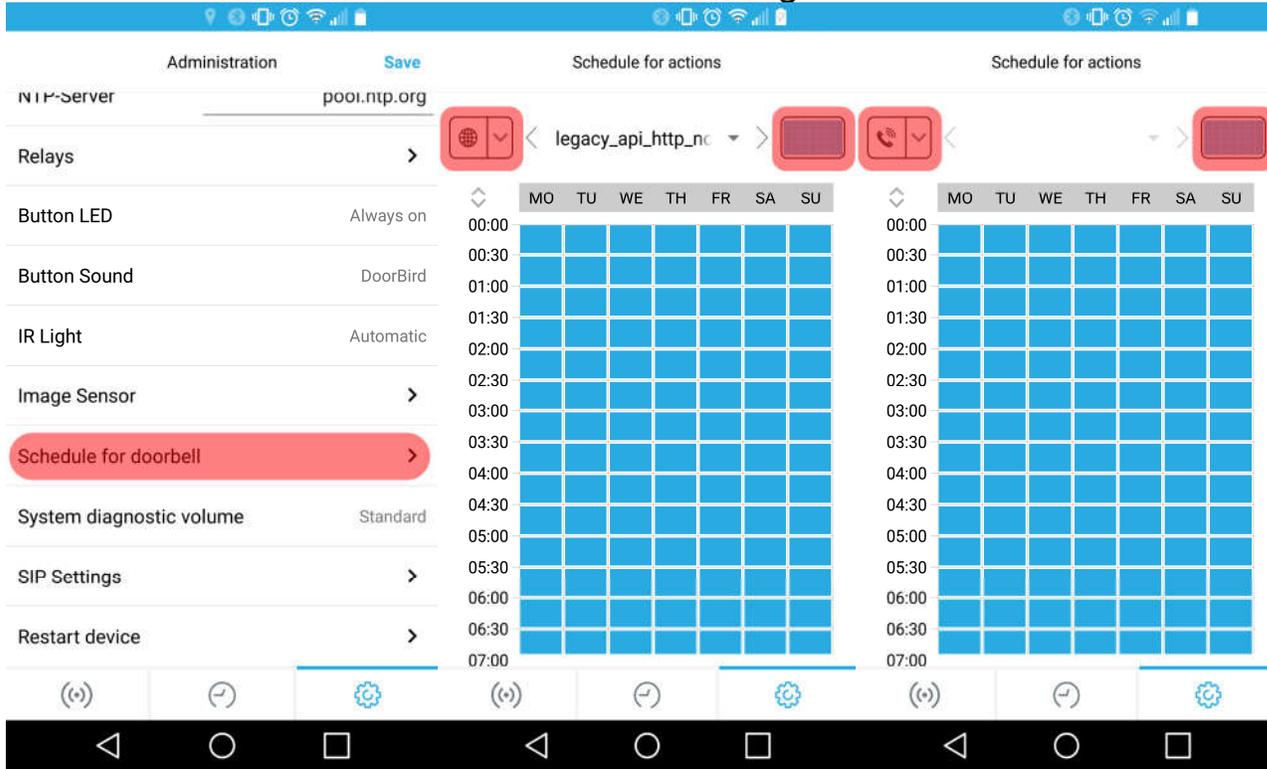
5. If there are no entries in these sub menus, you can create one for the SIP calls by entering either the RTI SIP Capable device's Caller ID name followed by @xxx.xxx.xxx.xxx for the direct URL or enter the appropriate SIP Proxy information.



6. For the HTTP Calls you can either wait for the driver to attempt at setting the notifications or enter in the information as shown in the screen shot, replacing the IP address and port with that of the XP processor where the driver resides, and the notification port setting configured in the driver.



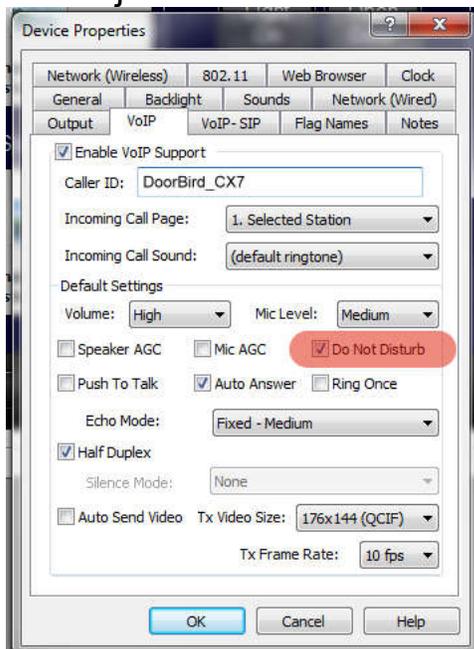
7. Once the entries are in the system, the schedule will need to be setup manually in the DoorBird. By selecting on the Schedule for doorbell from the DoorBird app, you can select the icon in the upper left corner of the Schedule for actions page to select the appropriate notification type. The icon in the upper right corner will toggle on or off all available times in the schedule for the type of notification. Custom schedules can also be set but be aware the notifications and/or SIP calls will not work during the times the schedule is not active.



8. Once these DoorBird settings are configured, be sure to save this configuration in the DoorBird app.

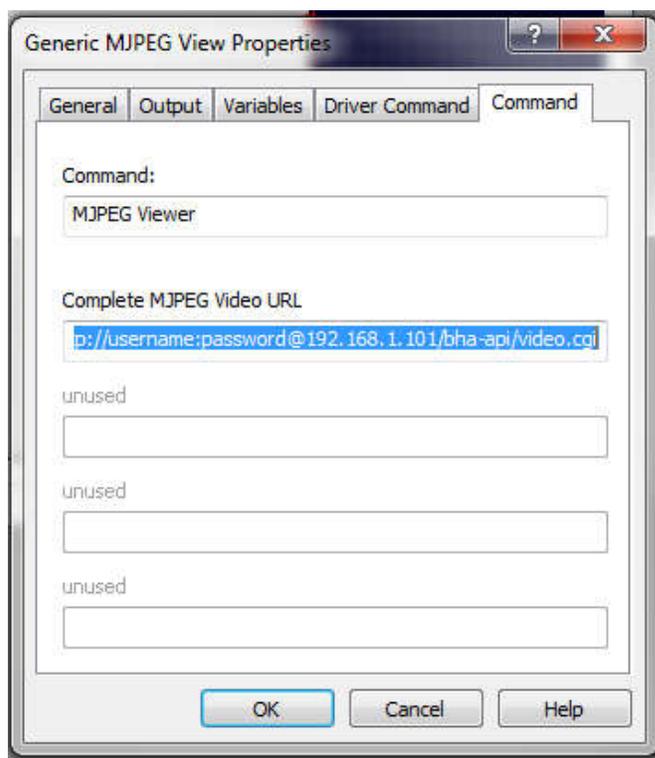
**Remember to save the settings whenever the DoorBird app prompt to save.**

9. Make sure to set the Do Not Disturb correctly for the RTI SIP enabled device in order for the Reject Call to occur.



# MJPEG Image setup

Add the Generic MJPEG Video Viewer object on the RTI user interface (must support 640x480 resolution natively) using the URL format of <http://username:password@192.168.1.101/bha-api/video.cgi>



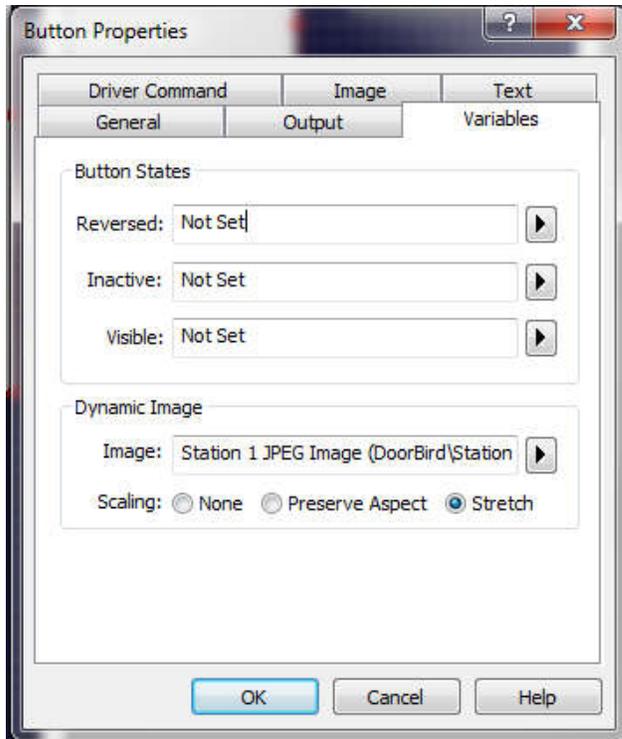
# Dynamic Image variable setup (Scale-able)

Create a button on the RTI interface sized to preference.

In the Library Browser of Integration Designer select on the DoorBird driver and then select Dynamic Image from the Variables/Assign to drop down menu.

Drag the JPEG Image for the DoorBird station on to the button.

Edit Properties of the button and on the variable tab select the appropriate scaling selection.



The driver command Refresh JPEG Image can then be added to the button so that the end user can manually refresh the image if the JPEG Image Refresh Interval is set higher than that which would give the appearance of motion JPEG.

Be careful not to cause unnecessary traffic on the network by setting the JPEG Image Refresh Interval to a fast refresh rate as the XP will be required to push the update to all IP capable user interfaces when the refresh occurs.

# VoIP/SIP call button

Create a button on the VoIP/SIP enabled RTI interface to call the DoorBird station and using the VoIP/Dial: IP Address object in Integration Designer. The IP of device address field should be configured to sip:<IP of DoorBird Station>

The image shows a 'Call/Answer Properties' dialog box with the following fields and options:

General	Output	Variables
Driver Command	RS-232	Image
		Text
		Command

Command:  
Dial: IP Address

IP of device  
sip:192.168.1.101

unused  
[Empty field]

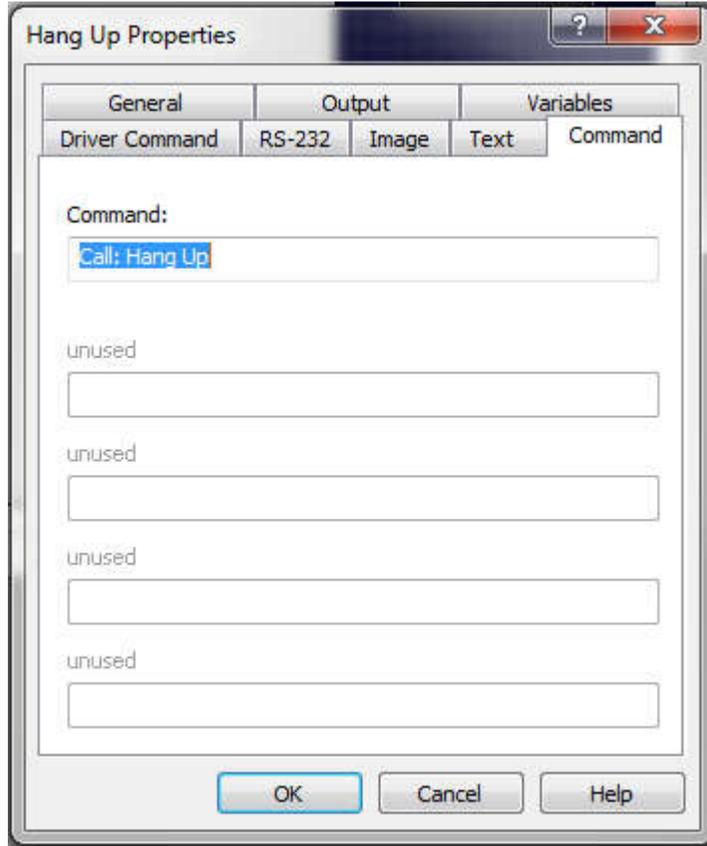
unused  
[Empty field]

unused  
[Empty field]

Buttons: OK, Cancel, Help

# VoIP/SIP Hang Up button

Create a button on the VoIP/SIP enabled RTI interface to call the DoorBird station and using the VoIP/Call: Hang Up object in Integration Designer.



## How it works after setup is complete?

When an incoming doorbell notification is received, the DoorBird driver will issue an event, which can then trigger a macro that could contain page link changes, audio muting for the audio system, trigger a specific sound from an audio trigger device feeding the multizone audio system, or trigger a Z-Wave doorbell module, etc.

The end user would then be able to view the DoorBird camera using the MJPEG object on supported RTI interfaces or the Dynamic Image (JPEG) on RTI interfaces not able to view the MJPEG resolution (Wi-Fi and/or Ethernet required on the RTI device).

If the end user wishes to answer the door bell using VoIP/SIP, a VoIP call can be issued to the DoorBird from a VoIP/SIP enabled RTI interface.

When finished, the hang up VoIP command should be issued to close the SIP connection with the DoorBird station so that it is ready for the next event.

It is not required for the DoorBird to issue a door bell event to call the DoorBird station. Using the mechanism described in this document for answering the DoorBird, the station can be called without having to create separate call and answer buttons.