Gimmal

RFIDConnect

Gimmal Physical

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Version History

Version	Approved By	Effective Date	Product Version	Description of Change
1	Terry Butler	02/28/2022	3.11	Created for Gimmal Version 3.11
2	Marta Farensbach	12/1/2022	3.12	Minor updates for Gimmal Physical 3.12

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Installation Settings

Gimmal Physical RFIDConnect is a Windows system tray application that allows users to interact with RFID tagged items to perform check in/check out operations.

Setting Up Gimmal Physical RFIDConnect

To get started with RFIDConnect, you need:

1. RFID Reader Hostname/IP Address
2. Gimmal Physical WebServices URL

Initial Set Up

- Set the WebService URL:
    1. Navigate to the RFIDConnect installation directory.
    2. Open Gimmal PhysicalRFIDConnect.exe.config in a text editor.
    3. Find the setting tag where the name attribute equals “WebserviceURL”. EX:

        ```
        <setting name="WebserviceURL" serializeAs="String">
        <value></value>
        </setting>
        ```

    4. Set the Value tag to the Gimmal Physical WebService URL.
    5. Save the file.

- Set and configure the RFID Reader and Antenna:
    1. Start the application.
    2. Right click on the RFIDConnect Icon in the system tray.
    3. Click on Options
    4. Enter the Hostname/IP Address in the ‘Hostname for RF Pad‘ text box in the RFID Pad Settings section.
    5. Click Add.
    6. Select the RFID Pad from the dropdown menu in the Pad Configuration section.
    7. Check the appropriate boxes for each antenna attached to the reader and set desired strength.
    8. Click Ok

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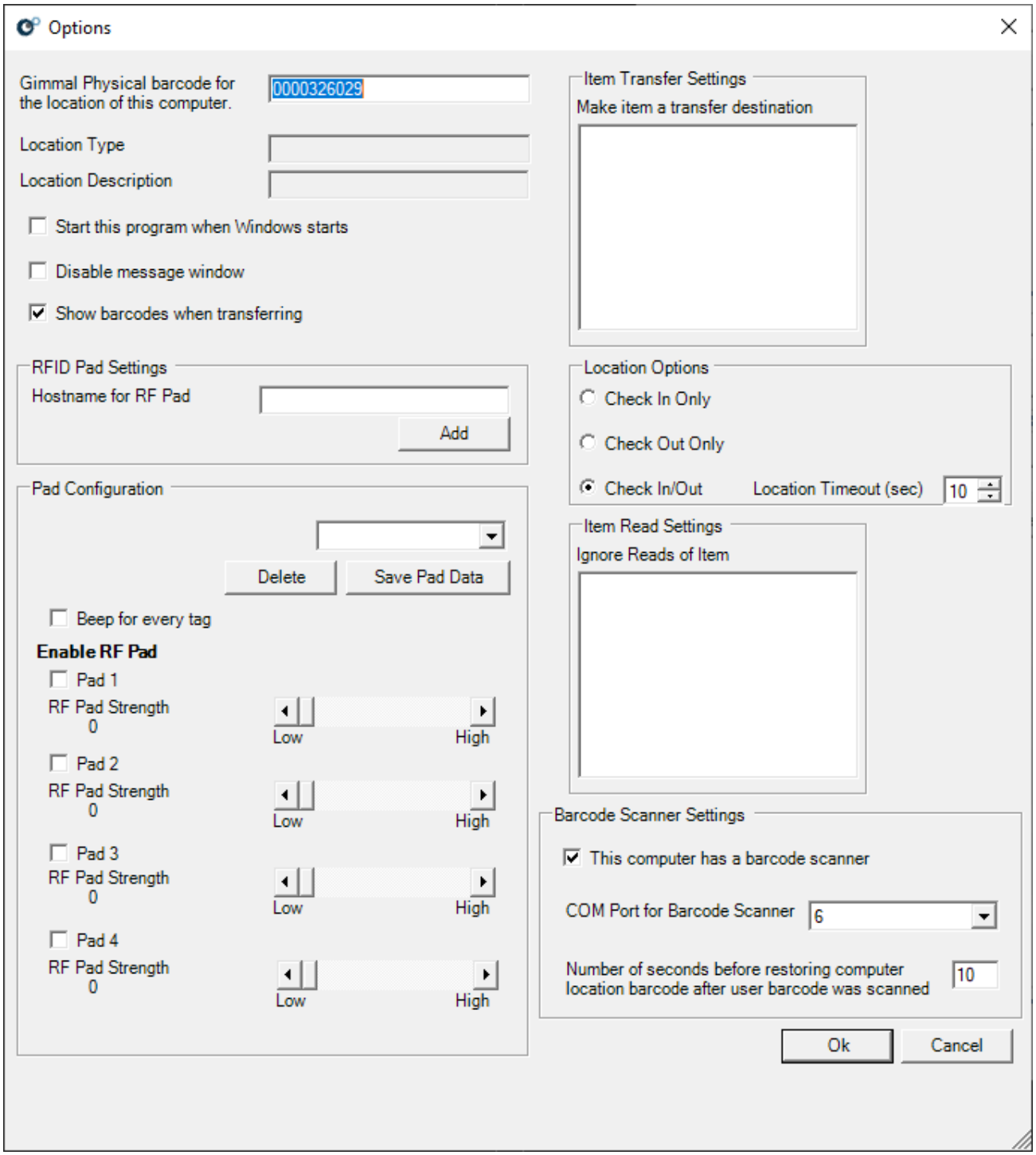
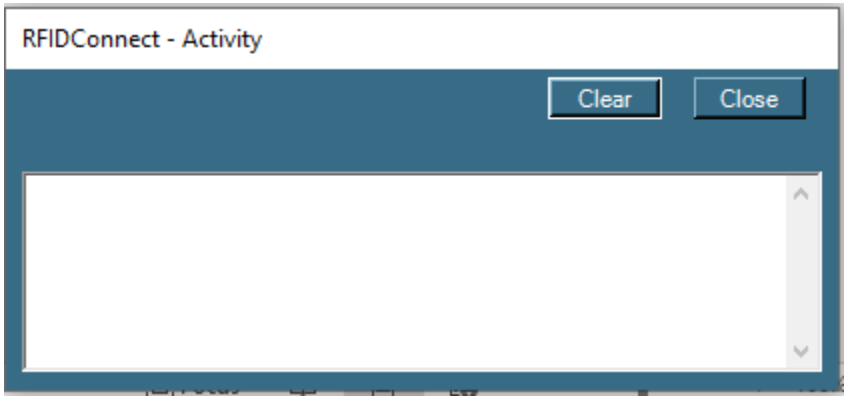

Options
Gimmal Physical barcode for the location of this computer.
0000326029
Location Type
Location Description
Start this program when Windows starts
Disable message window
Show barcodes when transferring
RFID Pad Settings
Hostname for RF Pad
Add
Pad Configuration
Delete
Save Pad Data
Beep for every tag
Enable RF Pad
Pad 1
RF Pad Strength
0
Low
High
Pad 2
RF Pad Strength
0
Low
High
Pad 3
RF Pad Strength
0
Low
High
Pad 4
RF Pad Strength
0
Low
High
Item Transfer Settings
Make item a transfer destination
Location Options
Check In Only
Check Out Only
Check In/Out
Location Timeout (sec)
10
Item Read Settings
Ignore Reads of Item
Barcode Scanner Settings
This computer has a barcode scanner
COM Port for Barcode Scanner
6
Number of seconds before restoring computer location barcode after user barcode was scanned
10
Ok
Cancel

Configure Check-In/Out Operations:

RFIDConnect supports three Check In/Out modes.

1. Check-In Only
    - Check in items by passing the tagged items over the antenna. The tagged item will be checked into the barcode to which the reader is set.
2. Check-Out Only
    - First, check out items by passing the tag for the check-out destination. Then pass the tagged item over the antenna.
3. Check-In/Out
    - This mode supports both check in and check out, with a timeout setting for the transfer destination read.
    - Example: The reader detects a transfer destination, for the next 10 seconds any items it reads will be checked out to that destination. After 10 seconds it reverts to check in mode.

When detected, read tags will be shown in the Show Activity window. This window will open automatically unless disabled in the Options menu.

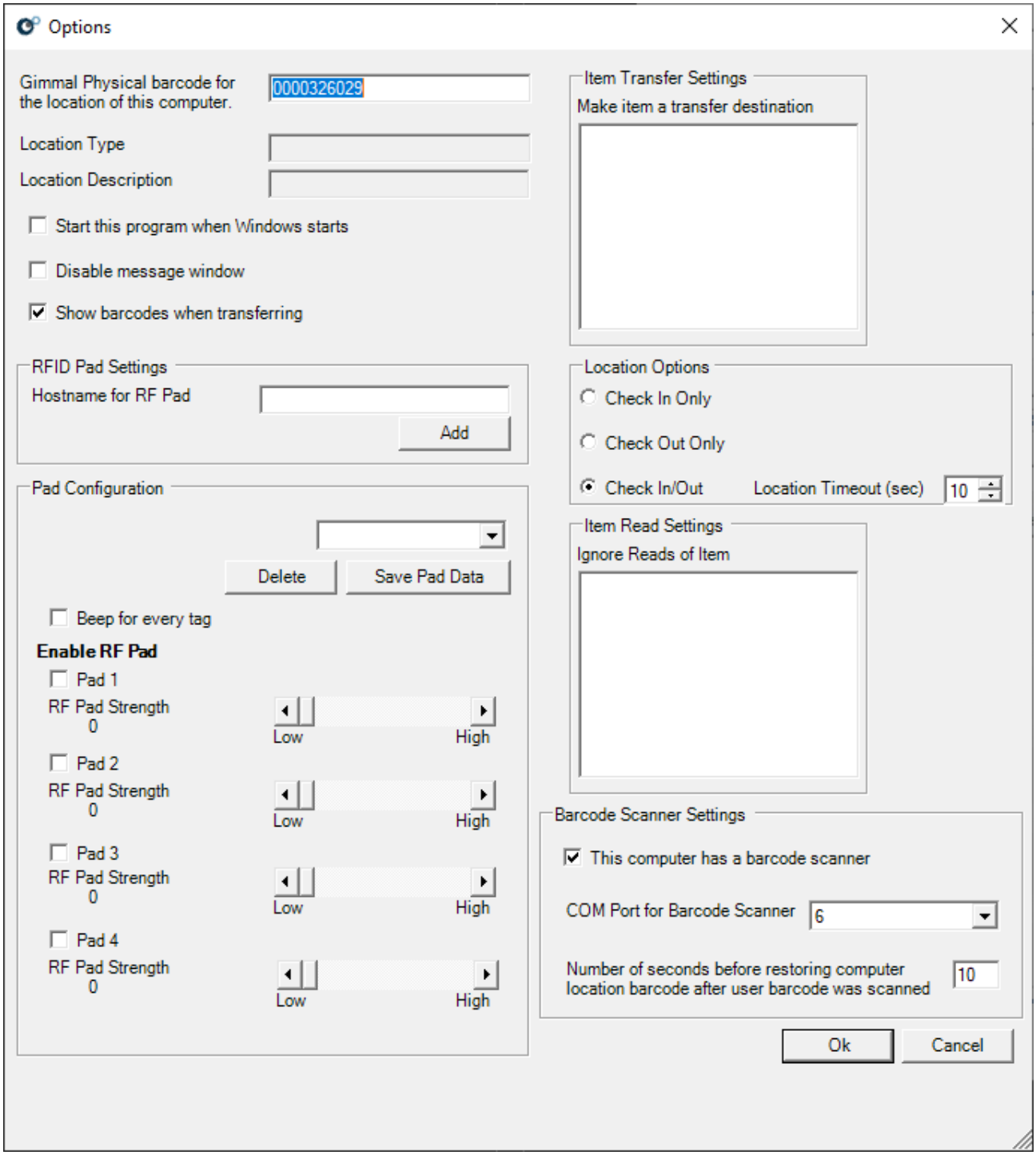


Using RFIDConnect for check-in/out requires users to define the following settings:

1. Set the Location that the RFID Reader represents: (Ex. File room, Warehouse)
    1. Start the RFIDConnect application.
    2. Right click on the RFIDConnect Icon in the system tray, click on Options
    3. Enter the Gimmal Physical barcode for the item that the reader represents in the 'Gimmal Physical barcode for the location of this computer' textbox.
    4. Click Ok.
2. Set which Tabs that the Reader will recognize as transfer destinations:
    1. Start the RFIDConnect application.
    2. Right click on the RFIDConnect Icon in the system tray, click on Options
    3. Under Item Transfer Settings check the boxes for the tabs that should be recognized as a transfer destination.
    4. Click Ok.

3. Set which Tabs to ignore reads:

1. Start the RFIDConnect application.
2. Right click on the RFIDConnect Icon in the system tray, click on Options
3. Under Ignore Reads of Item, check the boxes for the tabs that should be ignored if read.
4. Click Ok.

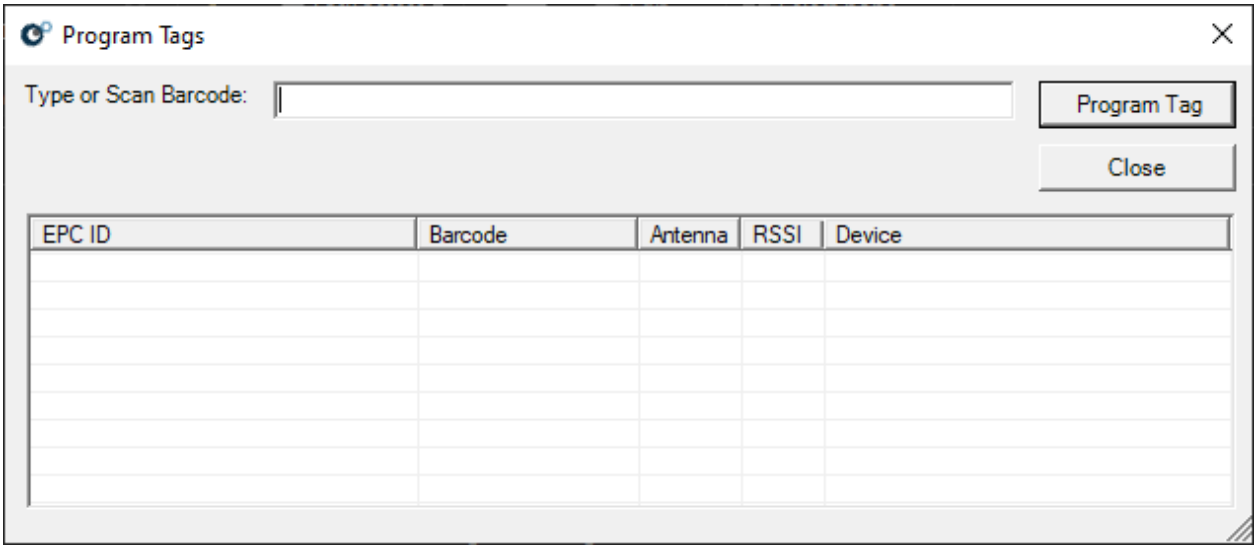


Additional Options

- Barcode Scanner – If using RFIDConnect at a workstation that also has a Tethered Scanner, you can use the Tethered Scanner to read destination barcodes.
    1. Start the RFIDConnect application.
    2. Right click on the RFIDConnect Icon in the system tray, click on Options.
    3. Check 'This computer has a barcode scanner' checkbox.
    4. Select the COM port that the tethered scanner is using from the 'COM Port for Barcode Scanner' drop down.
    5. Click Ok

Programing Tags

- RFIDConnect can also reprogram RFID tags:
    1. Start the RFIDConnect application.
    2. Right click on the RFIDConnect Icon in the system tray.
    3. Click on Program Tags.
    4. Scan the tag to reprogram.
    5. Type in the new barcode.
    6. Click Program Tag.



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Supported Hardware

RFIDConnect supports the Zebra FX7500 RFID Reader

Physical Characteristics	
Dimensions	7.7 in. L x 5.9 in. W x 1.7 in. D (19.56 cm L x 14.99 cm W x 4.32 cm D)
Weight	1.9 lbs ± 0.1 lbs (0.86 kg ± 0.05 kg)
Housing Material	Die-cast aluminum, sheet metal and plastic
Visual Status Indicators	Multicolor LEDs: Power, Activity, Status and Applications
Mounting	Keyhole and standard VESA (75mm x 75mm)
Environmental	
Operating Temp.	-4° to +131° F/-20° to +55° C
Storage Temp.	-40° to +158° F/-40° to +70° C
Humidity	5-95% non-condensing
Shock/Vibration	MIL- STD-810G
Regulatory Compliance	
Safety	UL 60950-01, UL 2043, IEC 60950-1, EN 60950-1
RF/EMI/EMC	FCC Part 15, RSS 210, EN 302 208, ICES-003 Class B, EN 301 489-1/3
SAR/MPE	FCC 47CFR2:OET Bulletin 65; EN 50364
Other	ROHS, WEEE
Connectivity	
Communications	10/100 BaseT Ethernet (RJ45) w/ POE support; USB Client (USB Type B), USB Host Port (Type A)
General Purpose I/O	2 inputs, 3 outputs, optically isolated (Terminal Block)
Power Supply	POE, POE+ or +24V DC (UL Approved) 12V-48VDC operation can be supported
Antenna Ports	FX 7500-2: 2 mono-static ports (Reverse Polarity TNC) FX 7500-4: 4 mono-static ports (Reverse Polarity TNC)
Hardware, OS and Firmware Management	
Processor	Texas Instruments AM3505 (600 Mhz)
Memory	Flash 512 MB; DRAM 256 MB
Operating System	Linux
Firmware Upgrade	Web-based and remote firmware upgrade capabilities
Management Protocols	RM 1.0.1 (with XML over HTTP/HTTPS and SNMP binding); RDMP
Network Services	DHCP, HTTPS, FTPS, SFPT, SSH, HTTP, FTP, SNMP and NTP
Network Stack	IPv4 and IPv6
Security	Transport Layer Security Ver 1.2, FIPS-140
Air Protocols	EPCglobal UHF Class 1 Gen2, ISO 18000-6C
Frequency (UHF Band)	Global Reader: 902 MHz – 928 MHz (Maximum, supports countries that use a part of this band), 865 MHz – 868 MHz US (only) Reader: 902 MHz – 928 MHz
Transmit Power Output	10 dBm to +31.5 dBm (POE+, 12V ~ 48V External DC, Universal 24V DC Power Supply); +10 dBm to +30.0 dBm (POE)
Max. Receive Sensitivity	-82 dBm
IP addressing	Static and Dynamic
Host Interface Protocol	LLRP
API Support	Host Applications – .NET, C and Java EMDK; Embedded Applications – C & Java SDK
Warranty	The FX7500-2 and FX7500-4 are warrantied against defects in workmanship and materials for a period of one year (12 months) from date of shipment, provided the product remains unmodified and is operated under normal and proper conditions.