

# Adder Connection Manager Manual

## Module Description

The **Adder Connection Manager** is responsible for handling communication with the Adder AIM system. It manages authentication, device discovery, and connections between TX (transmitters) and RX (receivers). This module serves as the central hub for the **Adder Room** modules.

---

### Digital Inputs

Signal Name	Description
<b>Login</b>	Sends a login request to the AIM system. Ensure that the correct IP, port, API version, username, and password are set before triggering this.
<b>Logout</b>	Logs out from the AIM system and clears the authentication token.
<b>Debug</b>	Enables or disables debug mode. When active, detailed logs are printed for troubleshooting.
<b>GetDevicesTX</b>	Fetches a list of all TX devices from the AIM system.
<b>GetDevicesRX</b>	Fetches a list of all RX devices from the AIM system.
<b>GetChannels</b>	Fetches a list of all available channels from the AIM system.
<b>Poll</b>	Reserved for future use. Can be used to trigger a periodic refresh of device statuses.
<b>Disconnect_All</b>	Disconnects all active RX devices from their currently connected sources.

---

### Digital Outputs

Signal Name	Description
<b>Login_Success</b>	High (1) when login is successful.
<b>Login_Failed</b>	High (1) when login fails due to incorrect credentials or connection issues.

---

## Integer Parameters

Parameter Name	Description
<b>HTTPS</b>	Set to <b>1</b> to enable HTTPS communication, or <b>0</b> to use HTTP.
<b>API_Version</b>	Specifies the API version used for communication with the AIM system.

---

## String Parameters

Parameter Name	Description
<b>AIM_IP</b>	The IP address of the AIM system.
<b>AIM_Port</b>	The port number used for communication.
<b>Username</b>	The username used to log in to the AIM system.
<b>Password</b>	The password used to log in to the AIM system.

---

## Usage Instructions

### 1. Setup Connection Parameters

- Configure the **AIM\_IP**, **AIM\_Port**, **API\_Version**, **Username**, and **Password** parameters.
- Set **HTTPS** to 1 for secure communication or 0 for standard HTTP.

### 2. Login to the AIM System

- Pulse the **Login** signal.
- If successful, **Login\_Success** will go high. If unsuccessful, **Login\_Failed** will go high.

### 3. Fetch Device Information (*read Notes*)

- Pulse **GetDevicesTX** to retrieve a list of TX devices.
- Pulse **GetDevicesRX** to retrieve a list of RX devices.
- Pulse **GetChannels** to retrieve available channels.

#### 4. **Control Active Connections**

- The **Adder Room** module registers RX devices.
- Use the **Source\$** signal in the **Adder Room** module to connect an RX device to a TX channel.

#### 5. **Debug Mode**

- Activate **Debug** to enable detailed logging.
- Disable **Debug** by setting the signal low.

#### 6. **Logout**

- Pulse **Logout** to disconnect from the AIM system.

#### 7. **Disconnect All Devices**

- Pulse **Disconnect\_All** to forcefully disconnect all RX devices from their current sources.

---

### **Notes**

- **RegisterRoom** in the **Adder Room** module must be pulsed after every processor restart to ensure proper operation.
- Debug mode prints detailed logs to the console, which can be helpful for troubleshooting connection issues.