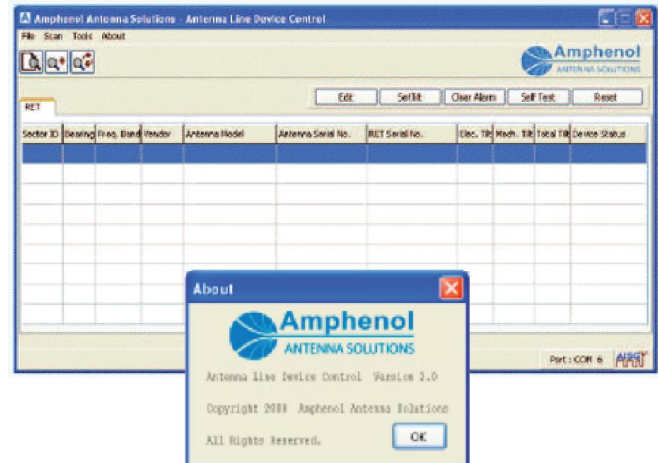# RETU/MDCU Firmware Update Guide

This document describes how to update the firmware of an Amphenol Antenna Solutions RET (either external RET, cassette RET, or MDCU) using the PCU-4 controller and ALDC User Software. The PCU-4 and ALDC software requires a laptop computer. Please see the document ALDC Installation Quick Start guide for further information on how to install this application and PCU-4 drivers.

To upgrade the firmware to the antenna, the PCU-4 controller must be connected to the RET unit.

Launch the ALDC Software

1. Click on the ALDC icon on the desktop to start the application. If you have installed the Start menu shortcut then you could also select Start > Programs > ALDC > ALDC v2.0. The screen displays the ALDC home screen.

2. Check the Port: COM number at the bottom of the home screen. Any number other than zero (0) means the USB cable is connected and detected by the system.

3. If the number is 0, the system is not properly connected. Either the USB cable is not connected with the adapter or the USB connection is not detected by the WINDOWS system. In the latter case, please reconnect the cable and launch the system again.

4. Click on the **About** menu. The About window displays the software version that was loaded into the installation CD.
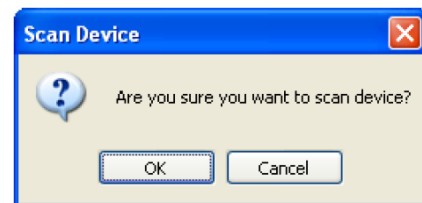
Scan the Device

The scan function will interrogate the AISG bus and display all AISG devices found.

- RET device types will display on the RET panel.
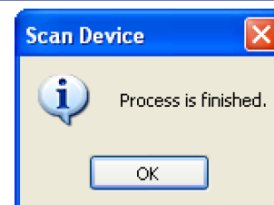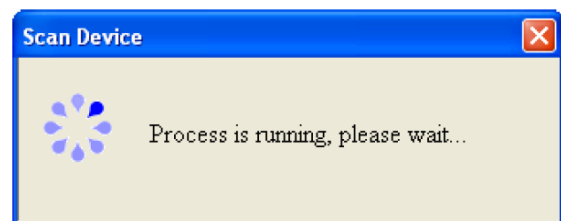- TMA device types will display on the TMA panel.

Initiate the Scan Function

1. To initiate the scan function, either click on the scan device icon in the tool bar or select Scan > Scan Device from the main menu. The screen displays a verification window.

2. Click [OK] to begin the scanning process.

Verify the Scanning Process

1. During scanning, check the following:
   - The Tx and Rx LEDs should flash on and off to indicate data transmission in both directions.
   - The RS485 A/B switch should be set correctly. See ALDC User Manual Section 4, Changing Adapter Settings, pg 9.

2. Should the scan timeout, or no antennas are found, please see Troubleshooting (Table1)

Troubleshooting

Problem	Solution
The Tx LED does not illuminate.	Check all power and cable connections between the PCU-4 and the laptop computer
The Rx LED does not illuminate.	Check the cable connections between the PCU-4 and AISG devices.

Table 1. Troubleshooting the Scanning Process.

Scan Results—RET

- The home screen displays all found RET Devices.

- The scan results are sorted by Sector ID. See Figure 3 and Table 2.

Figure 3

Device Name	Description/Constraint
Sector ID	Sector ID
Bearing	Antenna bearing in the range of 0-359 degrees
Freq. Band	Current applied frequency band(s)
Vendor	Vendor Name
Antenna Model	Antenna model name
Antenna Serial No.	Antenna serial number
RET Serial No.	AISG RET device serial number
Elec. Tilt	Current electrical tilt value
Mech. Tilt	Current mechanical tilt value
Total Tilt	Sum of mechanical tilt and electrical tilt
Device Status	"OK" or device alarm messages

Table 2. RET scan results.

Download RET and TMA Software

You are now able to upload new firmware (software) to selected AISG device. This feature can also be used to upload a small .hex file to selected Amphenol Antenna Solutions RET devices to change the operating mode from AISG v1.1 to AISG v2.0 and vice versa. It can also be used to change the operating mode to Ericsson Proprietary.

1. Select the RET or TMA to which you would like to download (row will be highlighted) and click the [Edit] button. The screen will display the Detail Setting window. See Figure 4.
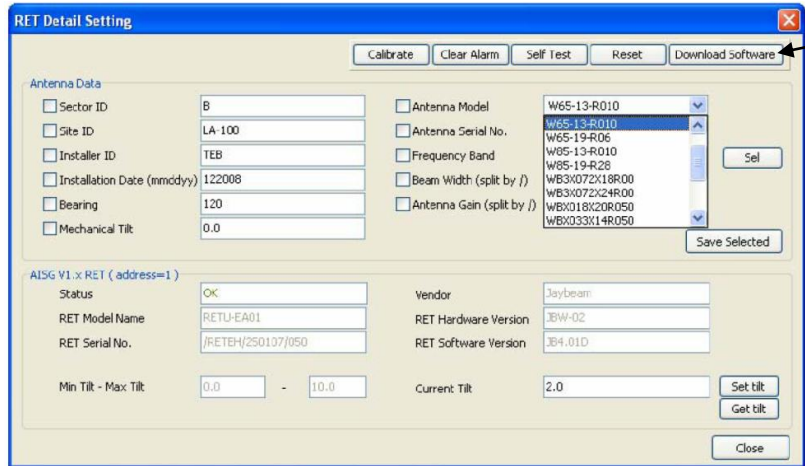

Figure 4

2. Click the [Download Software] button on the RET Detail Setting tool bar (Figure 4 arrow). The screen displays a window where you can select the file to upload to the device. See Figure 5.

NOTE The software program provided by the device vendor MUST have either .bin or .hex extension.

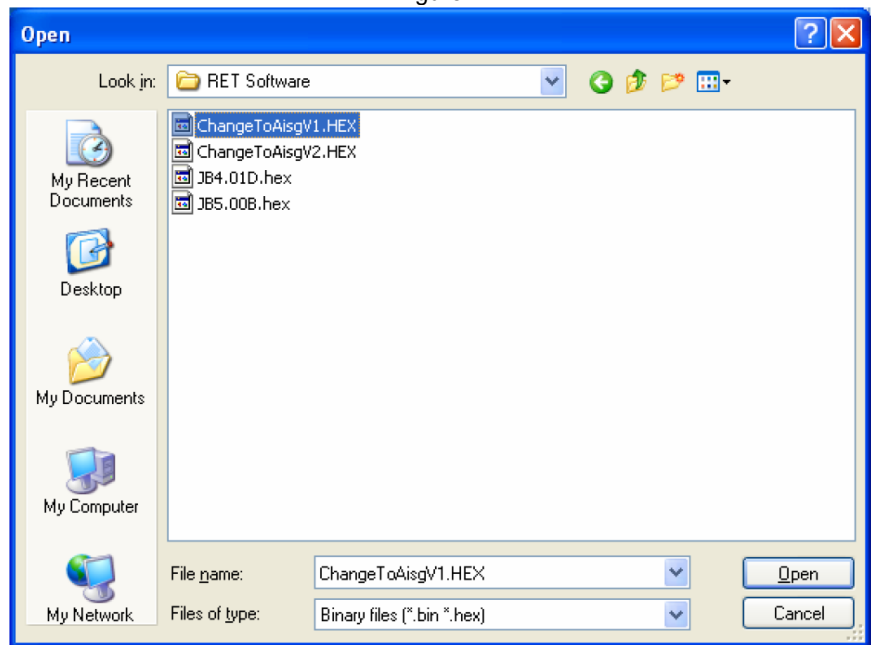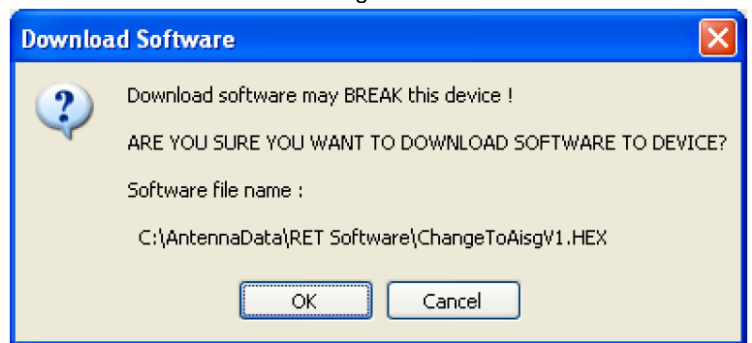3. Select a software file and then click the [Open] button.

Figure 5

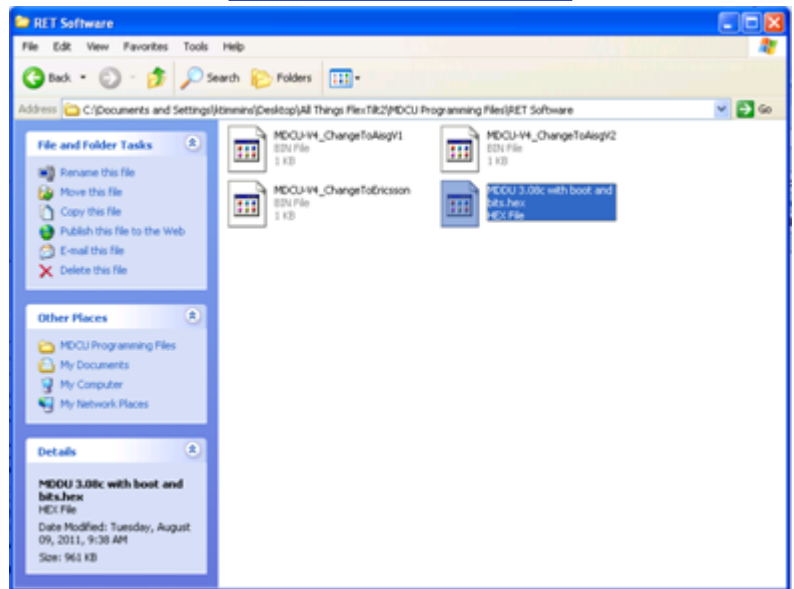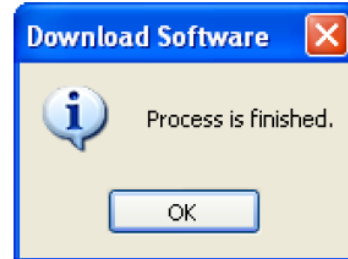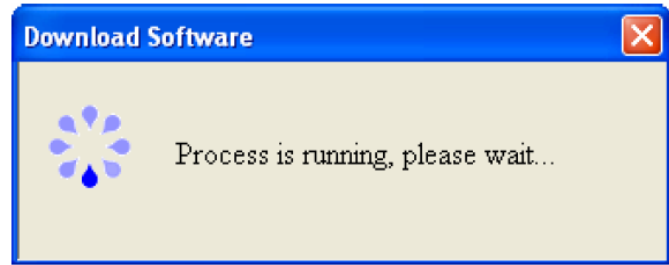4. The screen displays a confirmation window. Click the [OK] button.

Download RET and TMA Software, cont.

5. The system downloads the software file.

NOTE The software download might take up to 20 minutes, depending on file size.

6. The screen displays a message when the software download is finished. Click the [OK] button to close the message window.

NOTE When switching the AISG operating mode of an Amphenol Antenna Solutions RET, **it might be necessary to re-scan the bus** in order for the software to establish proper communication with the device and to display the updated AISG version.