rtswitch Firmware Update

Introduction

Many Ashton Bentley products have a bootloader pre-installed. This offers a convenient way to upgrade firmware without dismantling the unit and the need for a hardware programmer, making it ideal for firmware updates in the field.

To use the bootloader certain tools are need... must be followed. This article aims to he...p... these tools are and how to use them. Fi...t... bootloader is and what it does.

Usually, a bootloader is a secondary firmware that resides in micro-controller's ROM memory. It can communicate with a computer and reprogram the microcontroller itself.

The bootloader is triggered by using the AB Bootloader Starter App running on a computer connected to the UX with a USB cable . Once the bootloader has been triggered the BOSSA software is able to transfer the firmware to the bootloader and command it to program the firmware into micro-controller's flash ROM. Once the programming is done, you will need to re-start the unit, by removing and reconnecting the power. Once repowered with the new firmware will run and the system will start normally.

Hardware Required:

- Computer running Windows 10 / 11

- 1 x USB-A to micro-USB cable

ab. Ashton Bentley.

STEP 1 – Software & Files

Before starting the firmware upgrade process, please make sure you have downloaded the following to the computer you will use to connect to the UX:

- The UX firmware file (.bin) – available from Ashton Bentley

- AB Bootloader Starter App – available

STEP 2 – Connections & Power

Using the CAT5 Ethernet cable, connect either of the ANBET port on the UX to the ABNET port on the DX2.

Connect the DX2 PSU, and power the system. The UX is then powered from the DX2.

Using the USB cable, connect the micro-USB SERVICE port, on the side of the UX, to a computer.

ab. Ashton Bentley.

STEP 3 – Programing the UX

- Load the Bootloader Starter App on to your computer.

  This application is portable and doesn't require installation.

- Launch the Bootloader Starter App.

- Use the browse button to select the firmware file (.uf2 file) you wish to upload.

- Press the 'Program UX Firmware' button – the UX will open a USB drive on your computer and copy the firmware to it. Once it has finished coping the UX will reboot with the new firmware.
- The check firmware button will allow you to check the current version of firmware.

Note: When the service port is connected the UX will appear as a USB Serial Device on the connected laptop.