ORION TI-30XS FIRMWARE & AUDIO UPGRADE USER GUIDE

2nd November, 2017
Version 0.6

Revision History

Rev.	Date	Description of Changes	Author
0.1	25th March 2015	First external version	
0.2	27th March 2015	Corrections	
0.3	30th June 2015	Add audio upgrade	
0.4	8th July 2015	Updated	
0.5	28th July 2015	Corrections	
0.6	2nd Nov, 2017	Updated	

1   Introduction

This document describes the Orion TI-30XS firmware upgrade and audio upgrade procedure.

2   Requirements

2.1   Hardware

1. ORION TI-30XS unit
2. Micro-B USB cable

2.2   Software

1. ORION TI-30XS Upgrade Utility.exe
2. Orion TI-30XS firmware file (e.g. "Orion TI-30XSTargetSoftwareVxx.xx.xx.bin")
3. Orion TI-30XS audio file (e.g. "Orion TI-30XSAudioVxx.xx.xx.bin")
4. A PC with Windows 10

3   Device Connection Modes

1. Firmware Upgrade mode: ORION TI-30XS must be connected in this mode in order to upgrade the device. Please see Section 4 below.
2. Audio Upgrade mode: ORION TI-30XS must be connected in this mode in order to upgrade the audio of device. Please see Section 5 below.
3. Normal mode: In this mode device will perform normal user operations

4   ORION TI-30XS Firmware Upgrade Procedure

1. Turn off the calculator.
2. Press and hold "Access" (Top Left) key on Orion TI-30 unit and insert the Micro B USB cable to the ORION TI-30XS unit USB slot. If the USB cable already connected, user should press and hold the "Access" key and reset the device using CLEAR and ON key of the calculator.
3. Now release "Access" key and run the ORION TI-30XS Upgrade Utility. The PC utility will show "Orion TI-30XS is connected" in device status.
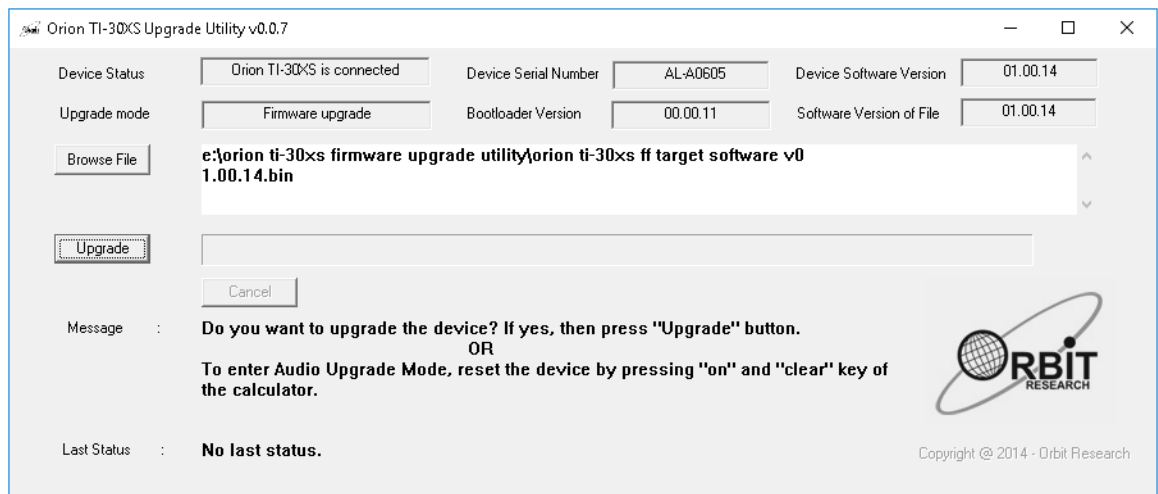

Figure 1. Device is in Firmware upgrade mode

4. If the firmware file already available in the software package, then it will automatically browse and select the firmware file. Otherwise click [Browse File] button and select the binary file "Orion TI-30XS Target Software vxx.xx.xx.bin" from the package.
5. If selected binary is other than firmware binary than utility will give error message shown as below.
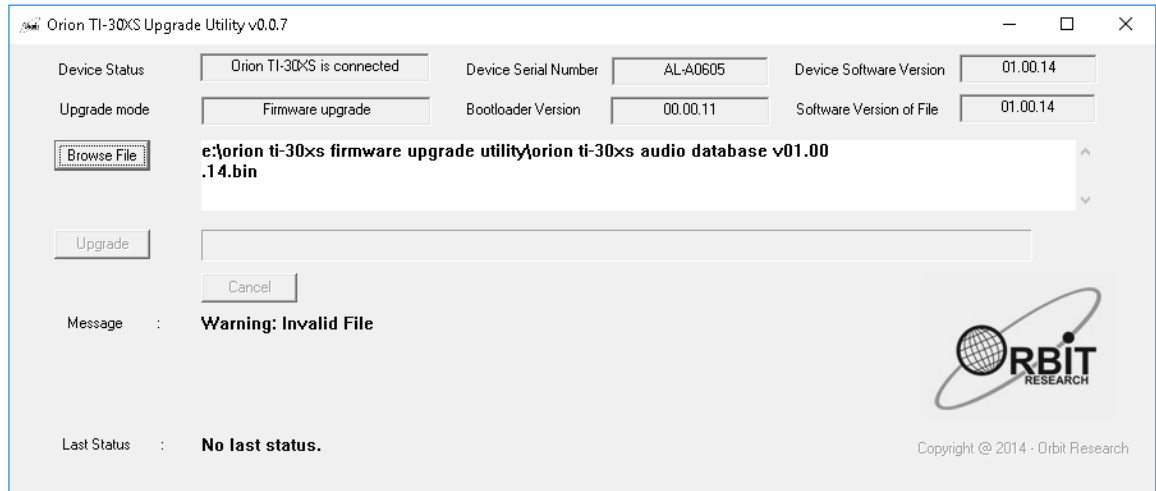

Figure 2. Invalid binary selected

6. After selecting valid firmware file utility will show the device serial number as well as the software version of the device at top right corner of the window. The GUI will also show the software version of the selected file at top right corner.
7. Click on the "Upgrade" button.
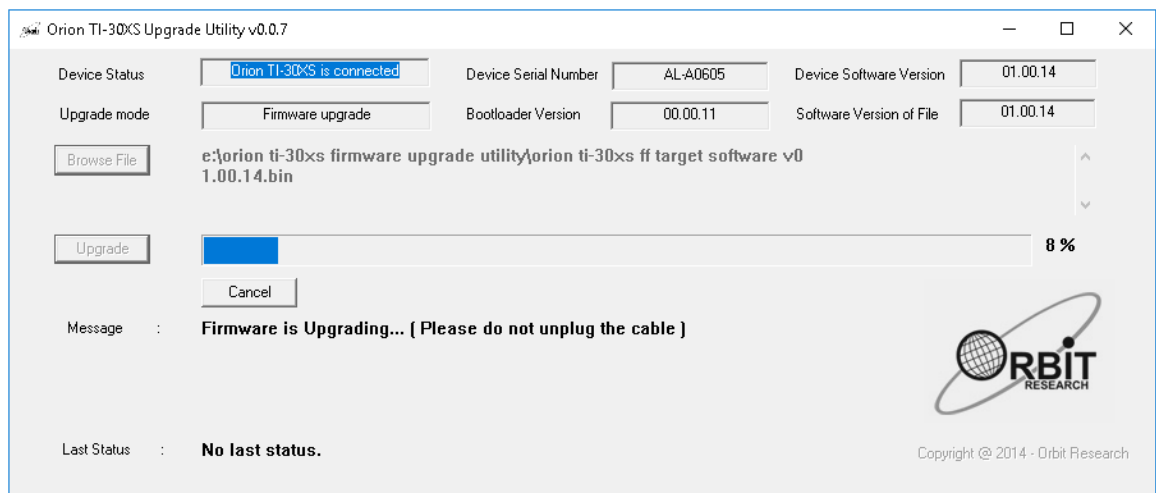8. The utility will start upgrading the device.

Figure 3. Upgrading the device

9. Wait for the upgrade process to be completed. Do not unplug the USB cable while upgrade is in process.

5   ORION TI-30XS Audio Upgrade Procedure

1. Reset the TI-30XS by pressing ON and CLEAR key to enter into Audio upgrade mode. Utility will show following message.
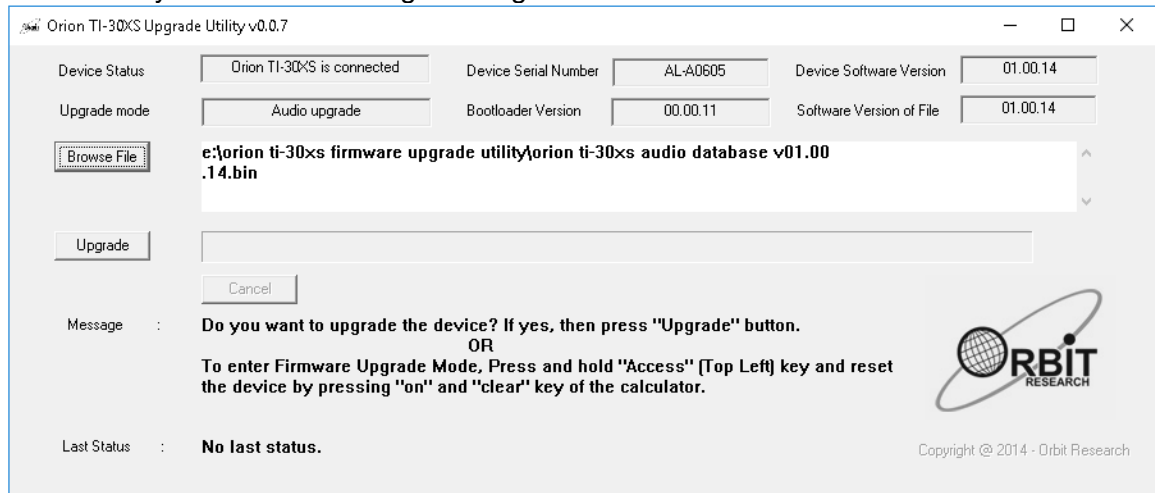

Figure 4. Device is in Audio upgrade mode

2. If the audio binary file already available in the software package, then it will automatically browse and select the audio binary file. Otherwise click [Browse File] button and select the valid audio binary file "Orion TI-30XS audio vxx.xx.xx.bin" from the package.
3. If selected binary file is other than audio binary file than utility will give error message shown as below.
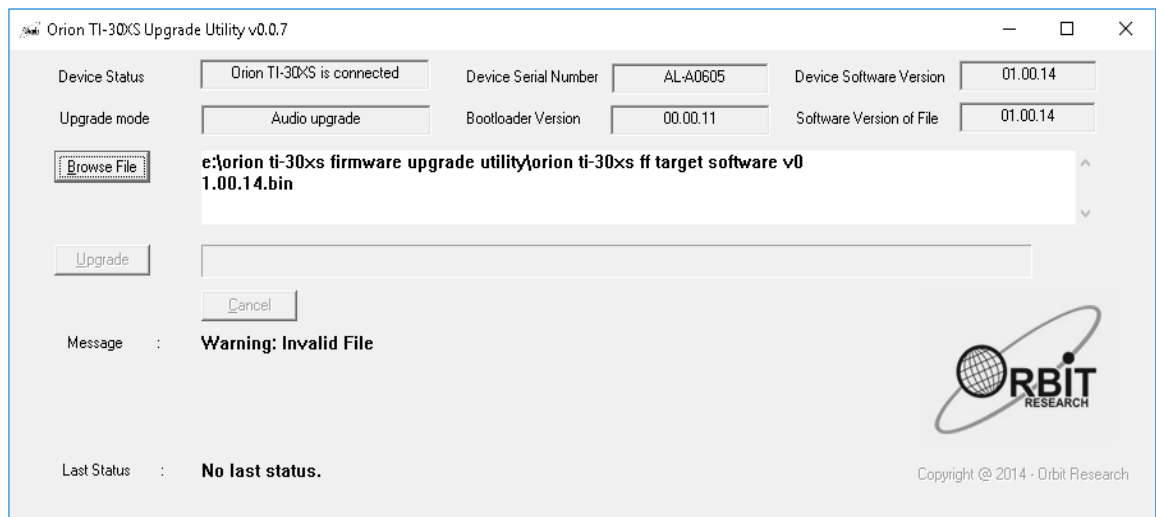

Figure 5. Invalid binary selected

4. If valid audio file is selected then click on Upgrade button to upgrade the audio. Utility will show below message.
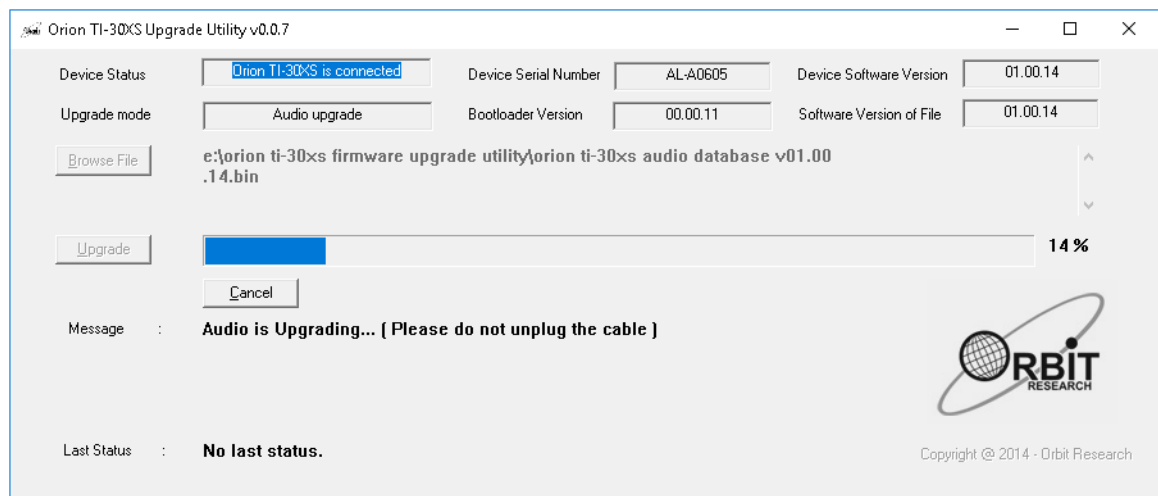

Figure 6. Upgrading the device

5. Wait for the audio upgrade process to be completed.
6. After completion of audio upgrade click on close button to close the utility and unplugged the USB cable from the device.
7. Device is ready for use.

6 Troubleshooting

- Follow firmware and audio upgrade procedure steps from (1) again in case of any failure.
- In case the device is not detected by the PC utility, open the device manager and check the status of the connected device in the HID section by plugging and unplugging the device. If there is still no response, connect the device to another USB port or restart the PC.