



# Instruction for Software Upgrading of U Series Ultrasound Systems

Revision History:

Version	Date	Created By	Details
V1.0		Alan Zeng	

## Contents

1. Applicable Models .....	3
2. Backup Preset and Data.....	3
3. Preparation.....	6
4. Upgrade .....	7
5. Verification .....	9
6. Import Preset and Data .....	10



## 1. Applicable Models

U50	V2.2 and later versions
U60	All versions
U2	V3.0 and later versions
U50 VET	V2.1 and later versions
U60 VET	All versions
U2 VET	V2.1 and later versions

**Note: Pictures used in this instruction are based on U50, interface might be slightly different on other models.**

## 2. Backup Preset and Data

**Note: Before performing the upgrade, please backup your preset and data if necessary.**

### Steps:

Step 1. Format USB Driver: plug USB driver into the USB port of the computer → Right click the icon of your USB drive → Select **Format** → Change the **file system** into **FAT32(Default)** → Click Start.

**Note: Files in USB Driver will be emptied after formatting, if necessary, please backup the files before formatting.**

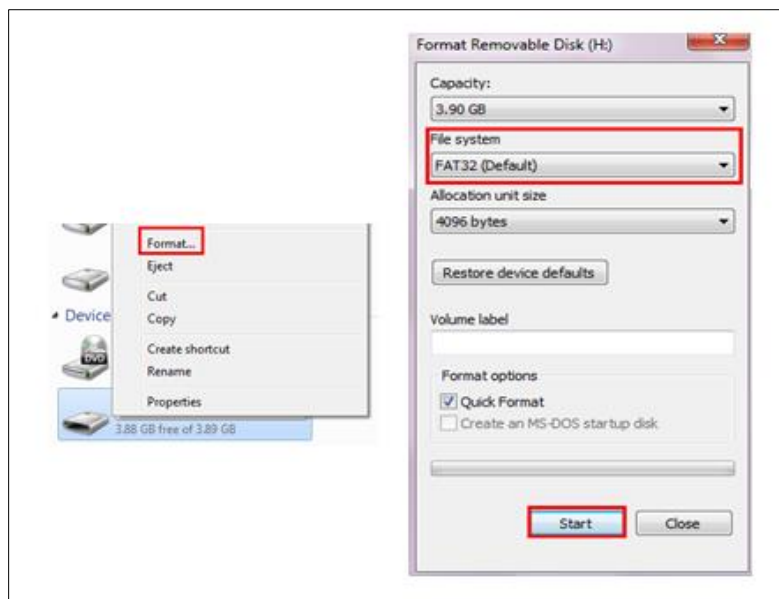


Figure 1



Step 2. Insert the USB Driver into the device, there will be an icon displayed in the bottom right corner if the driver is recognized. Press **Preset** on keyboard and roll the trackball to highlight **Preset Data**, select **Export** and select **OK** on the prompt, wait for a while, there would be a message “**Export presets successfully**”



Figure 2



Figure 3

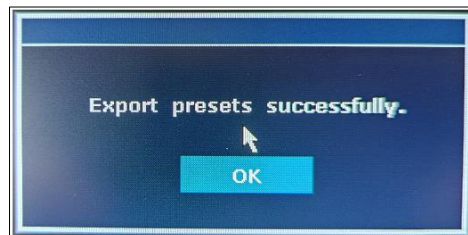


Figure 4


Step 3. Press **File** on keyboard and select **File Manager**, select Local Disk as **Driver** and the USB Driver as **Destination** (e.g. A:/), select a file format from the full-down menu , such as BMP/JPG/PDF, to display files in one type, or select \*.\* to display all files. Select the files needed and then press **File Send**.



Figure 5



Figure 6



### 3. Preparation

#### Tools Needed



USB Driver  
(1GB to 8GB is recommended)



Upgrade Files  
(From the service stuff)



U50



Computer

**Steps:**

Step 1. Prepare another USB Driver and format the driver (please refer to “**2. Backup Preset and Data – Step1**”).

Step 2. Unzip the upgrade package, copy all the upgrade files to a folder “**U50**” and put it into the root directory of your USB Driver.

**Note: For U series systems, upgrade folders should all be named as “U50”.**

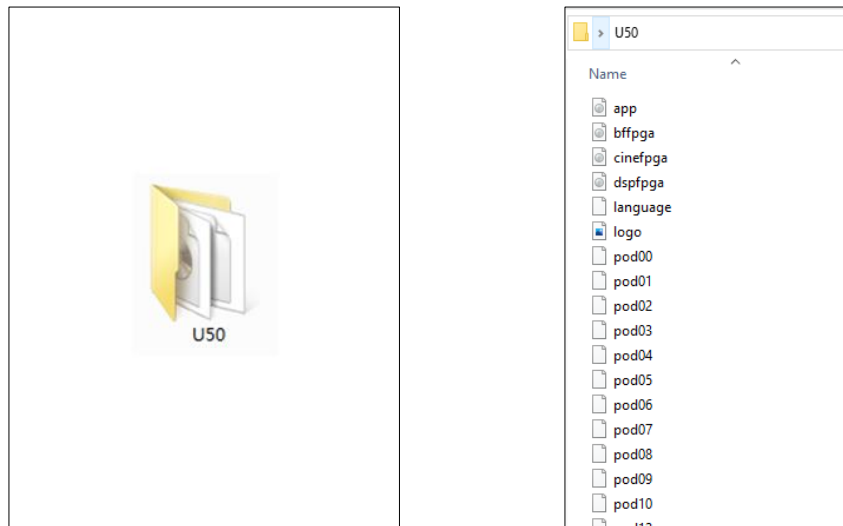


Figure 7

## 4. Upgrade

**Steps:**

Step 1. Insert the USB Driver into the device, press the **Power** button.

Step 2. As soon as the unit is switched on, hold the **Shift** key and keep tapping **Enter** on the keyboard simultaneously until the interface below turns up.



Figure 8





Step 3. Select **[2] Update programs from USB** and then select and upgrade the files from **[2] FPGA 1** to **[B] Rootfs**. At the end of each step, please check whether there is a message indicating a successful upgrade. After the last step is done, there will be a message: **“Update succeeded: rootfs”**. Press **[Esc]** twice to reboot the system.

**Note: Sometimes the information “Update succeeded: rootfs” will not be shown, please refer to “5. Verification” and check whether the device is successfully upgraded.**

```
Bootloader V1.0.1 (Mar 14 2017 - 11:06:42): Make a choice
[ 1 ] Update programs from TFTP
[ 2 ] Update programs from USB
[Esc] Reboot

Please select files to be updated from USB:
[ 0 ] Update all programs (EXCEPT bootloader)
[ 1 ] Bootloader
[ 2 ] FPGA1
[ 3 ] FPGA2
[ 4 ] Boot splash
[ A ] Linux Kernel
[ B ] Rootfs
[Esc] Return to main menu

updating all programs(EXCEPT bootloader)...
(Re)start USB...
USB: scanning bus for devices... 3 USB Device(s) found
      scanning bus for storage devices:.. 1 Storage Device(s) found

NAND scrub: device 0 whole chip
Erasing at 0x13840000 -- 61% complete.
NAND 512MiB 3.3V 8-bit: MTD Erase failure: -5
Erasing at 0x175c0000 -- 73% complete.
NAND 512MiB 3.3V 8-bit: MTD Erase failure: -5
Erasing at 0x1ffe0000 -- 100% complete.
OK

NAND erase: device 0 offset 0x0, size 0x3043ec0
Erasing at 0x30400000 -- 100% complete.
OK

NAND write: device 0 offset 0x0, size 0x3043ec0

Writing data at 0x2e0d0000 -- 100% complete.
nand_write_opts
50609856 bytes written: OK
Update succeeded: rootfs
```

Figure 9





Step 4. After the device restart, interface below would be shown, select **Upgrade factory** and wait for a few seconds, there will be a prompt “**Succeed to install all data!**”. Select **Ok** and then **Power off**.

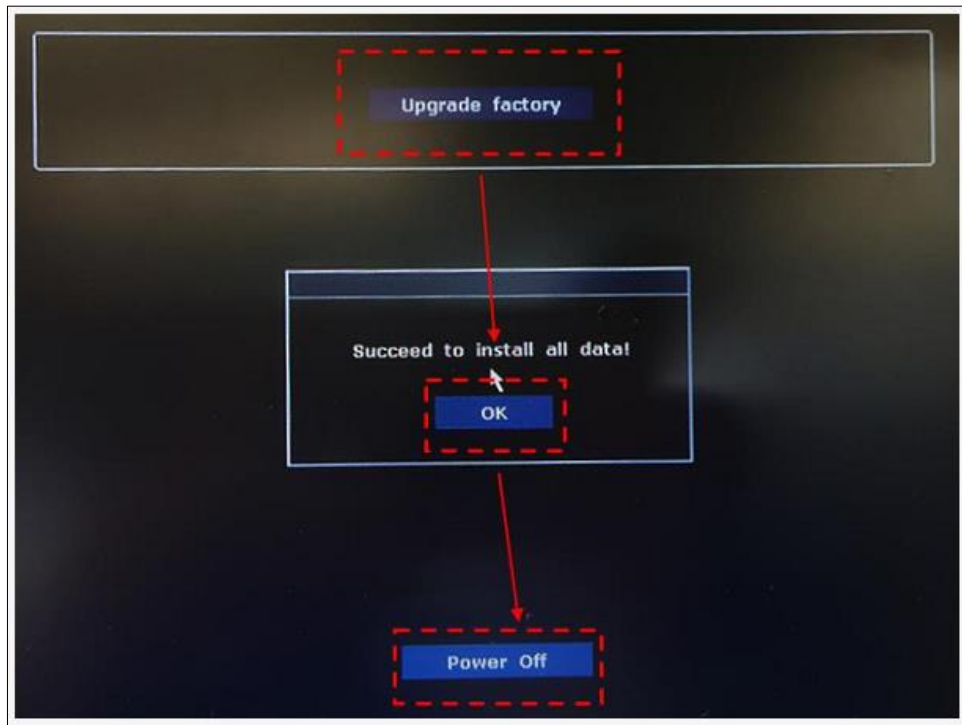


Figure 10

## 5. Verification

Press **Preset**→Select **System info** to check the software version.

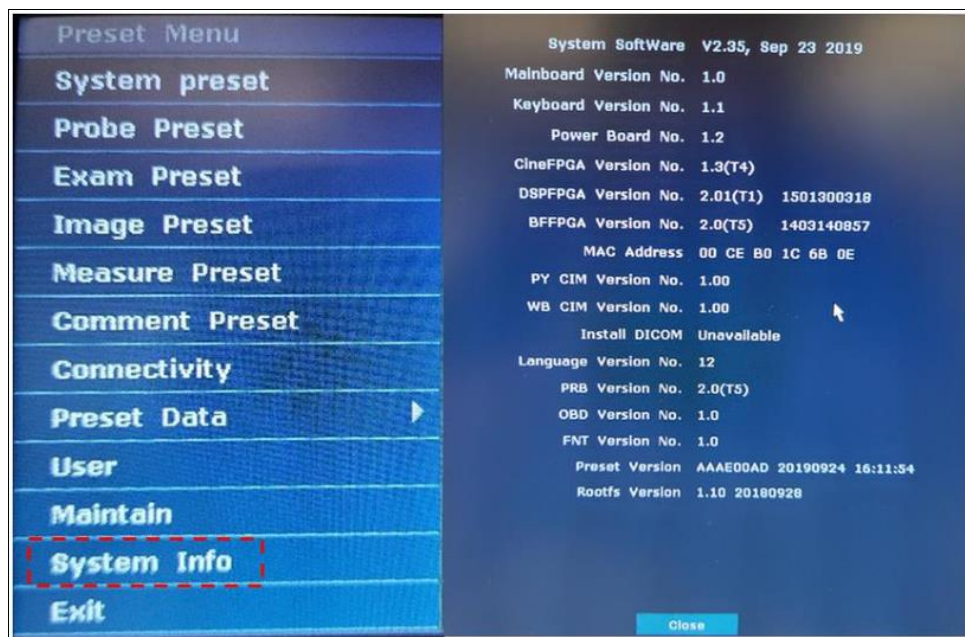


Figure 11



## 6. Import Preset and Data

### Steps:

Step 1. Insert the USB Driver (with Preset data) into the device. Press **Preset** and roll the trackball to highlight Preset Data, select **Import** and wait for a while, there would be a prompt “**Succeed to load data! Please reboot the system manually to validate the change!**”

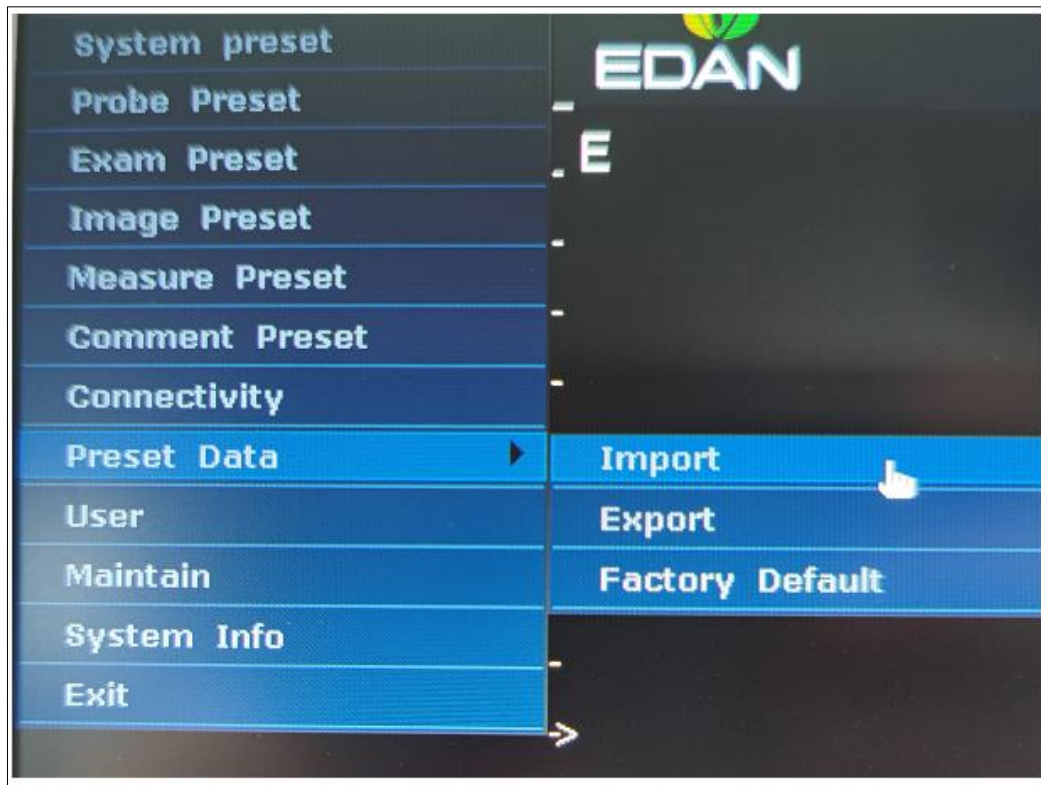


Figure 12

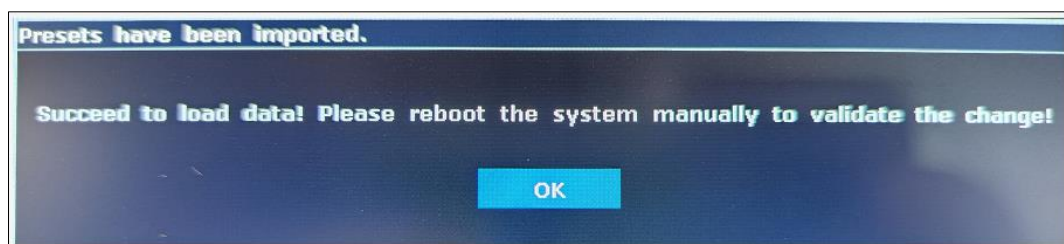



Figure 13



Step 2. Press **File** on keyboard and select **File Manager**, select the USB Driver as **Driver** (e.g. A:\) and **Local Disk** as Destination, select \*.\* from the full-down menu , select the files needed and press **File Send**.

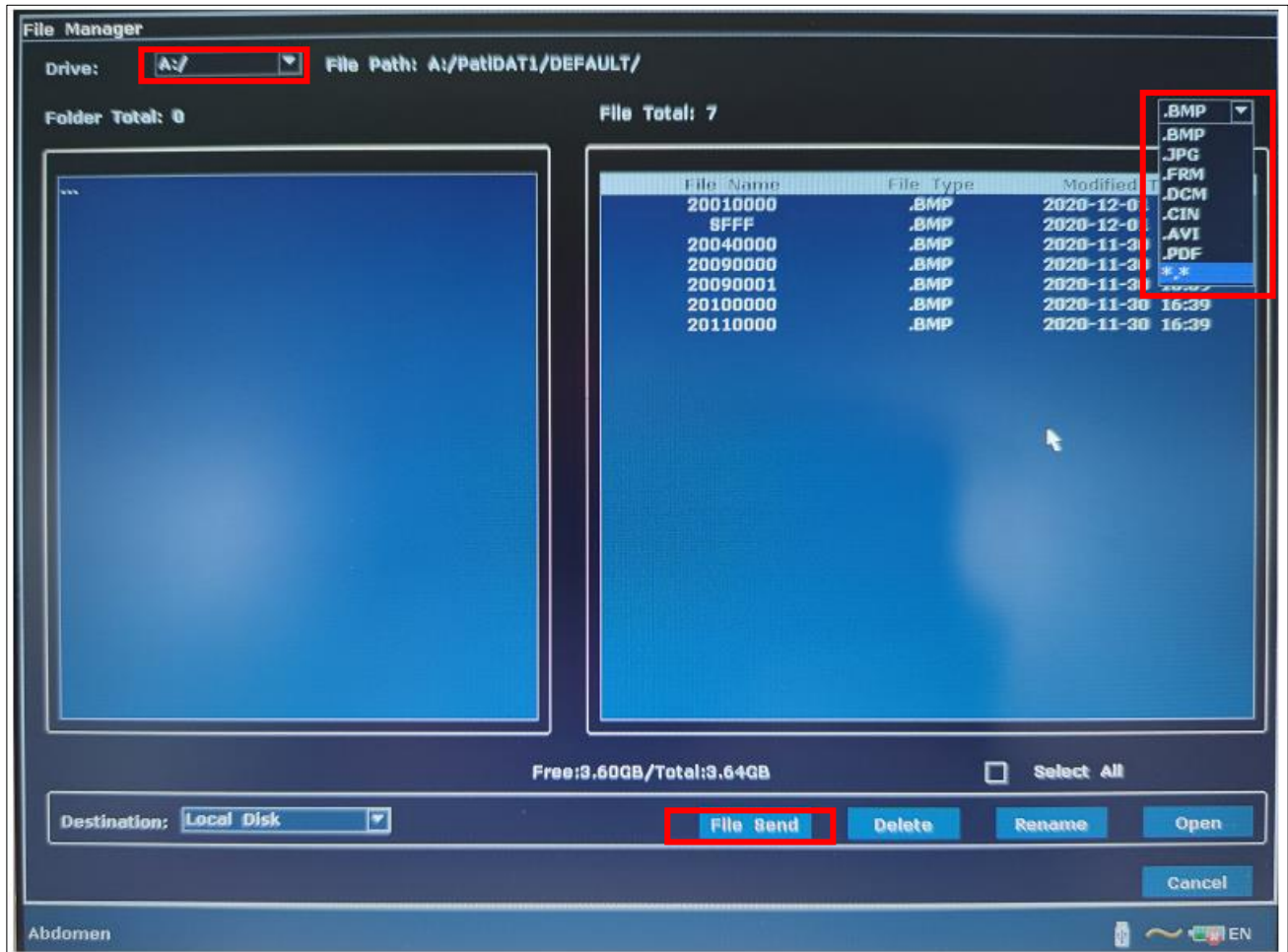


Figure 14