



# e-tarti

## LTR3 Firmware Upgrade Yazılım Güncelleme



### Moduler Connection



[www.etarti.com](http://www.etarti.com)



# Contents / İçindekiler

|     |                                                       |   |
|-----|-------------------------------------------------------|---|
| 1   | Programming Softwares / Programlama Yazılımları ..... | 4 |
| 1.1 | dFuse Software / dFuse (Güncelleme) Yazılımı .....    | 4 |
| 1.2 | Hyper Terminal / Hyper Terminal .....                 | 5 |
| 2   | Setup / Ayarlar .....                                 | 6 |
| 2.1 | USB Connection / USB Bağlantı .....                   | 6 |
| 2.2 | Programming / Programlama .....                       | 8 |

# 1 Programming Software

## / Programlama Yazılımları

This documentation is about firmware upgrade via USB port for LTR3 devices.

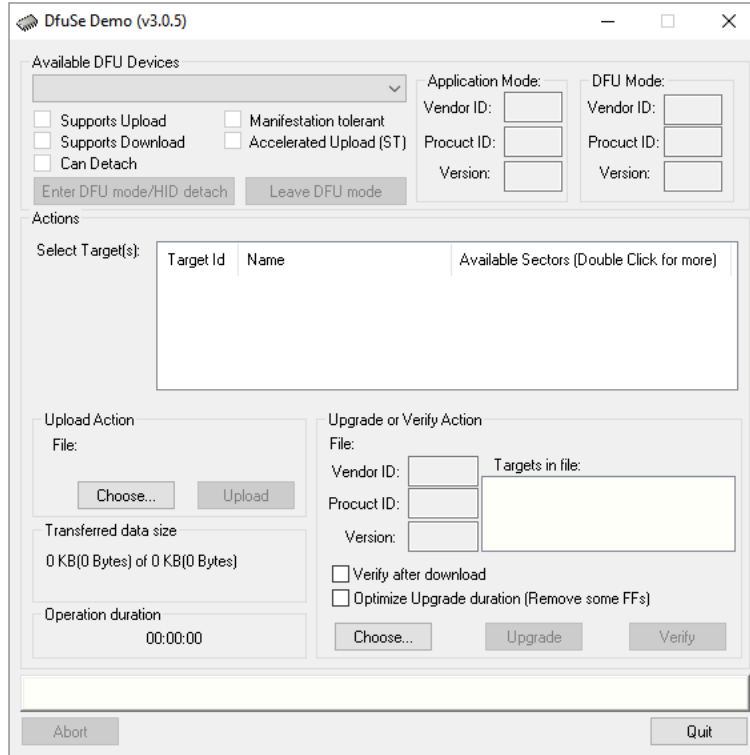
Bu doküman LTR3 cihazları için yazılım güncelleme bilgileri içermektedir.

### 1.1 dFuse Software

### / dFuse (Güncelleme) Yazılımı

Related software is downloaded from [www.etarti.com](http://www.etarti.com) and installed. Software screen will be as follows;

İlgili yazılım (dFuse) [www.etarti.com](http://www.etarti.com) adresinden indirilerek kurulum yapılır. Yazılım ana ekran görünümü aşağıdaki gibi olacaktır;

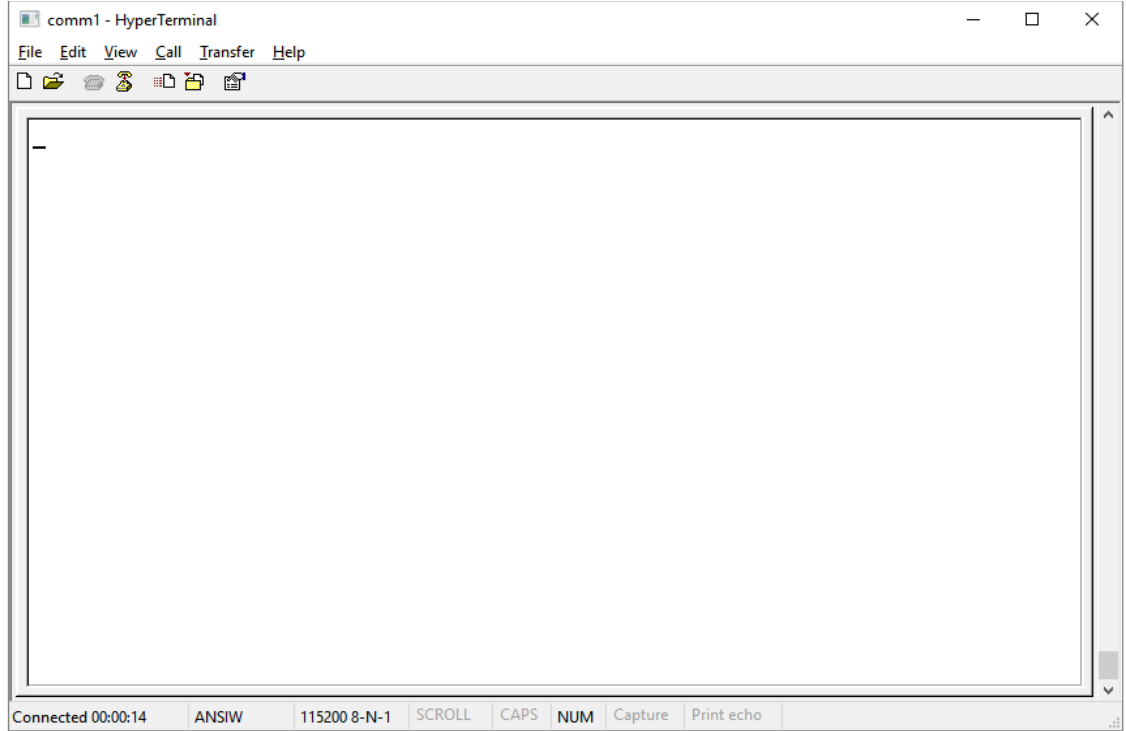


## 1.2 Hyper Terminal

## / Hyper Terminal

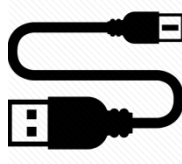
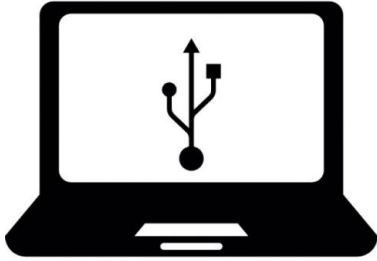
Related software is downloaded from [www.etarti.com](http://www.etarti.com) and installed. Software screen will be as follows;

İlgili yazılım [www.etarti.com](http://www.etarti.com) adresinden indirilerek kurulum yapılır. Yazılım ana ekran görünümüm aşağıdaki gibi olacaktır;



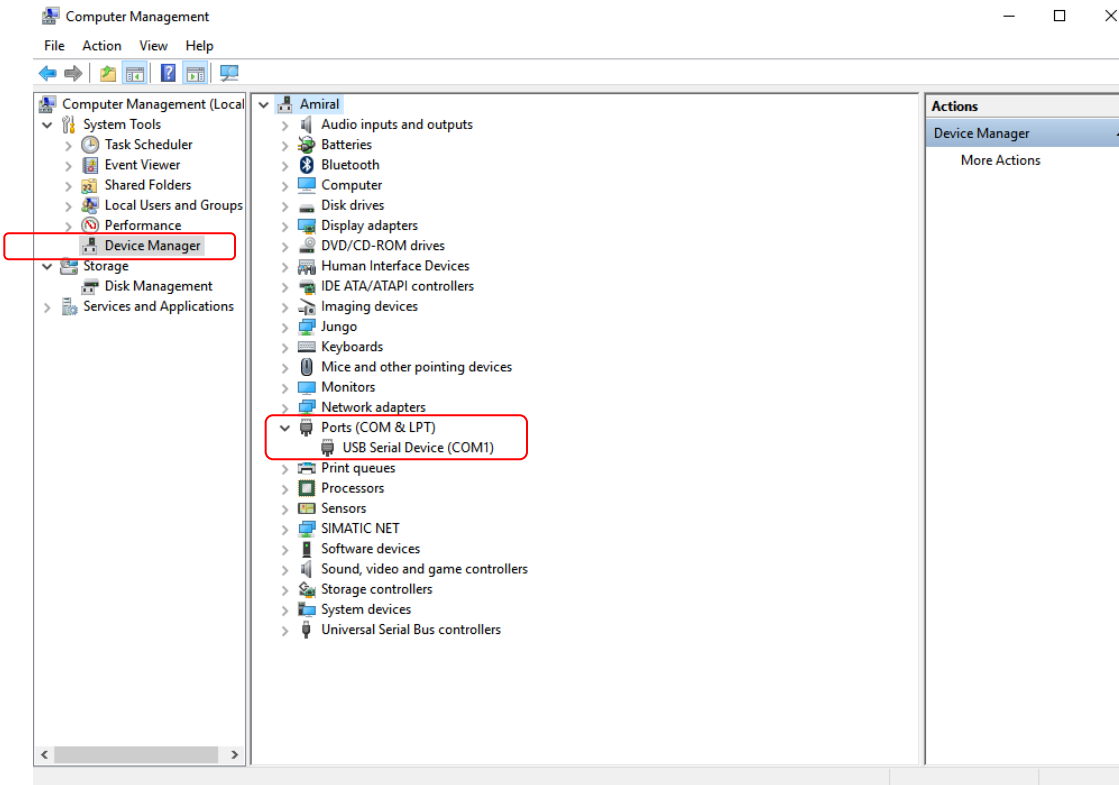
## 2.1 USB Connection

Note: Please Power up the device after the USB to PC connection is done. While device is under operation or energized do not change connections.  
USB interface can be used to setup the device. A regular microUSB connector is used connect the LTR3 device to a Computer.



The computer will automatically recognize the LTR device. The device will appear on the "DeviceManager->Ports" section of the Computer. Shown as a "USB Serial Device". Please note that the Comm port number (Comm1-Comm2 etc). If a driver required then please visit [www.etarti.com](http://www.etarti.com).

LTR cihazını bilgisayar otomatik olarak tanıyacaktır. Bilgisayar Yöneticisi->PortAyarları kısmında "USB Serial Device" olarak görünecektir. Com port numarasını daha sonra kullanmak üzere not ediniz (Comm1,Comm2 gibi). Eğer sürücü gerekli olursa [www.etarti.com](http://www.etarti.com) adresine bakınız.



By using serial communication connection with a known interfaces like Hyperterminal or Putty the device

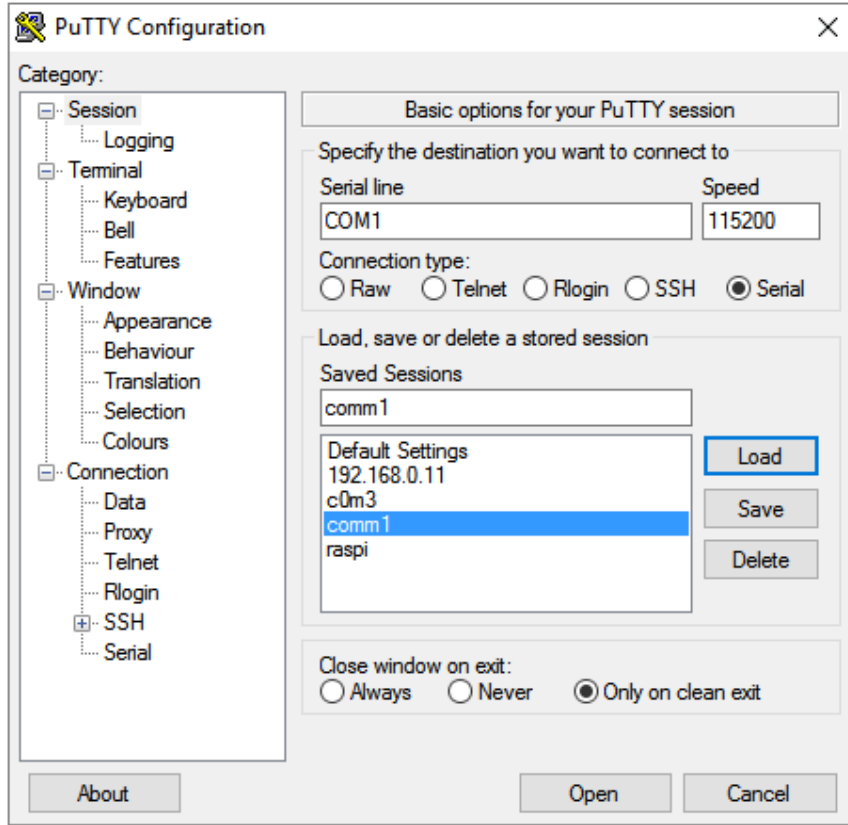
Hyper Terminal ya da Putty gibi bilinen arayüz yazılımları ile seri haberleşme protokolü üzerinden cihaz

programming mode is enabled.

Use **Putty** software (easy to use and popular. Can be downloaded from [www.putty.org](http://www.putty.org)) for sending commands to the device. As shown below;

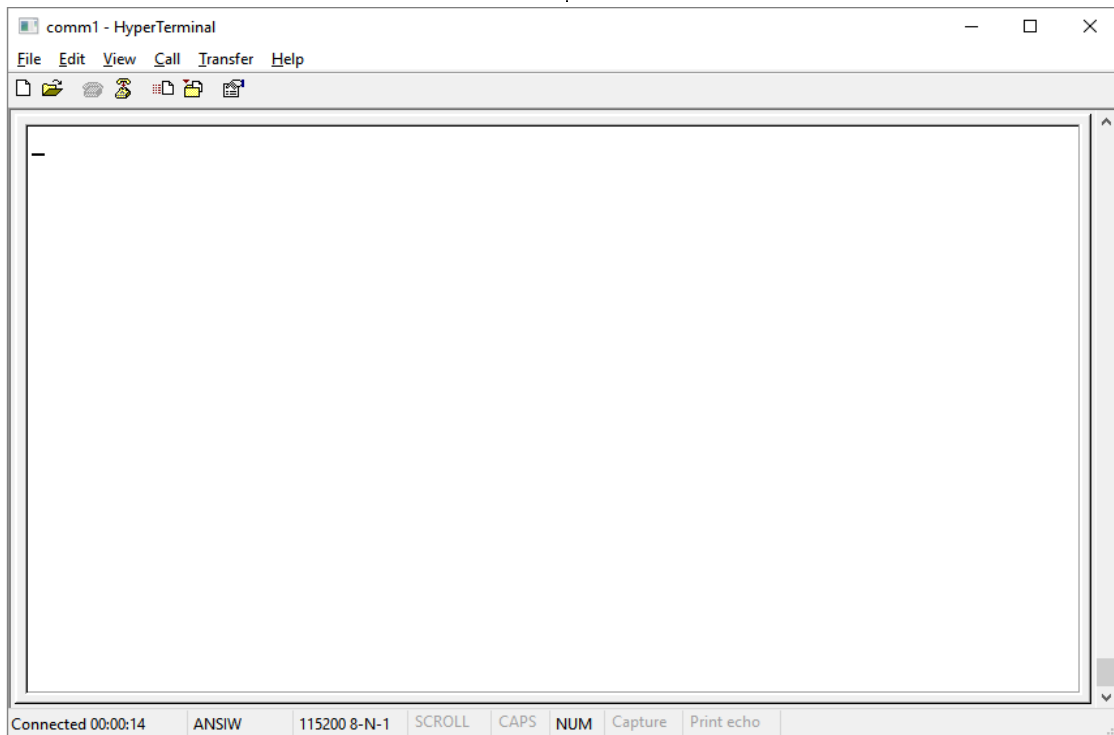
programlama moduna alınır.

Popüler ve kullanımı kolay olan **Putty** yazılımı aşağıdaki gibidir.( [www.putty.org](http://www.putty.org) sitesinden indirilebilir)



Or use Hyper Terminal interface for sending commands to the device.

Ya da cihaza komut göndermek için Hyper Terminal arayüzü kullanılabilir.

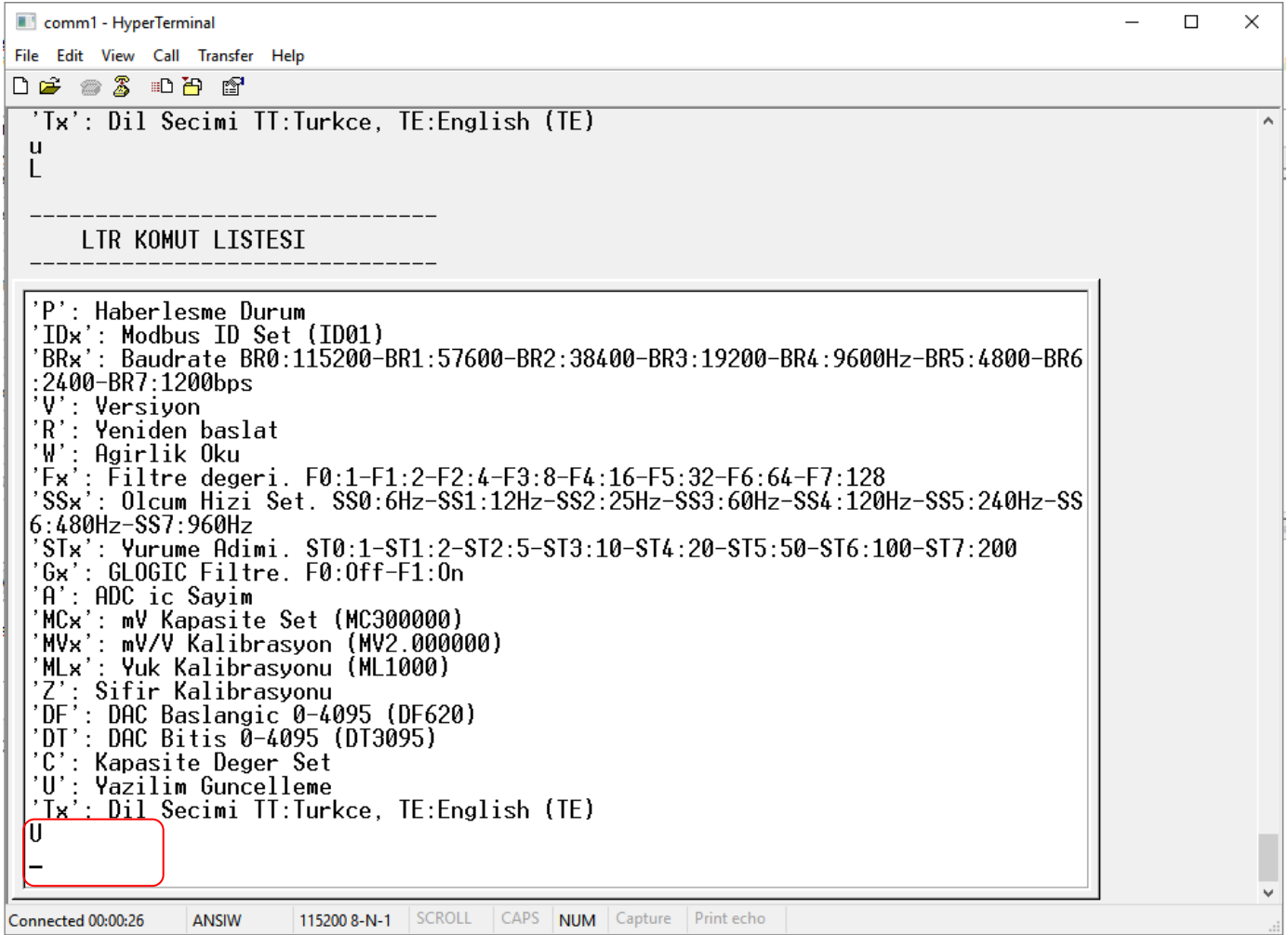


## 2.2 Programming Mode

## / Programlama Modu

Using Hyper terminal "U" command is issued

Hyper Terminal programı kullanılarak "U" komutu kullanılır.



The screenshot shows a HyperTerminal window titled 'comm1 - HyperTerminal'. The menu bar includes File, Edit, View, Call, Transfer, and Help. The main window displays the following text:

```
'Tx': Dil Secimi TT:Turkce, TE:English (TE)
u
L

-----
LTR KOMUT LISTESI
-----

'P': Haberlesme Durum
'IDx': Modbus ID Set (ID01)
'BRx': Baudrate BR0:115200-BR1:57600-BR2:38400-BR3:19200-BR4:9600Hz-BR5:4800-BR6:2400-BR7:1200bps
'V': Versiyon
'R': Yeniden baslat
'W': Agirlik Oku
'Fx': Filtre degeri. F0:1-F1:2-F2:4-F3:8-F4:16-F5:32-F6:64-F7:128
'SSx': Olcum Hizi Set. SS0:6Hz-SS1:12Hz-SS2:25Hz-SS3:60Hz-SS4:120Hz-SS5:240Hz-SS6:480Hz-SS7:960Hz
'STx': Yurume Adimi. ST0:1-ST1:2-ST2:5-ST3:10-ST4:20-ST5:50-ST6:100-ST7:200
'Gx': GLOGIC Filtre. F0:0ff-F1:0n
'A': ADC ic Sayim
'MCx': mV Kapasite Set (MC300000)
'MVx': mV/V Kalibrasyon (MV2.000000)
'MLx': Yuk Kalibrasyonu (ML1000)
'Z': Sifir Kalibrasyonu
'DF': DAC Baslangic 0-4095 (DF620)
'DT': DAC Bitis 0-4095 (DT3095)
'C': Kapasite Deger Set
'U': Yazilim Guncelleme
'Tx': Dil Secimi TT:Turkce, TE:English (TE)
U
-
```

The status bar at the bottom shows 'Connected 00:00:26', 'ANSIW', '115200 8-N-1', 'SCROLL', 'CAPS', 'NUM', 'Capture', and 'Print echo'.

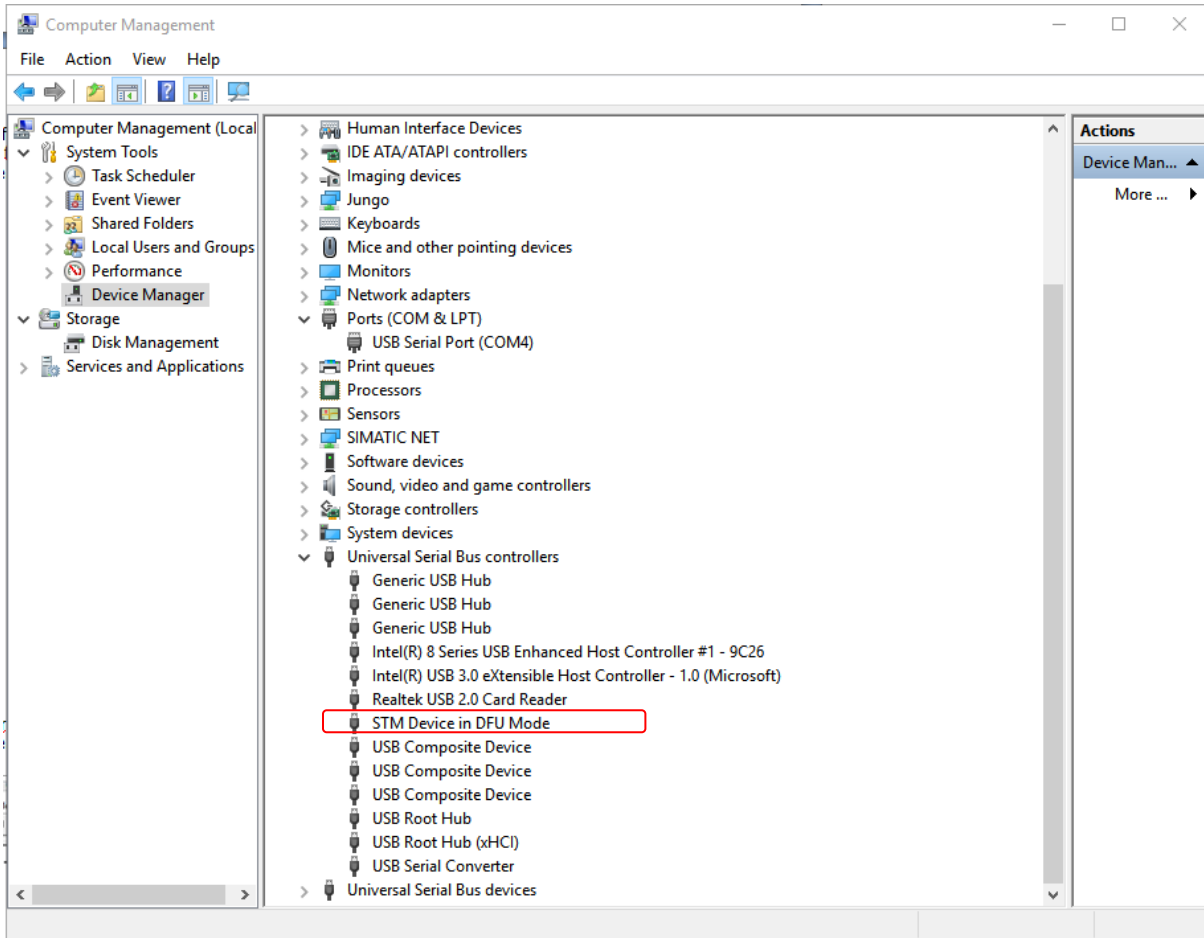
After "U" command is issued, device will go upgrade mode. LTr3 device will shown as "STM device in DFU Mode". If not recognized automatically then update driver by using the driver in "dFuse softwrae" install directory.

"U" komutu yazılıp enter tuşuna basılarak güncelleme moduna geçilir. LTr3 Aygıt Yöneticisi ekranında "STM device in DFU Mode" olarak görünecektir. Eğer bilgisayar tarafından otomatik olarak tanınmaz ise "dFuse yazılımı" kurulum adresindeki sürücü kullanılarak güncellenir.

PC > Local Disk (C:) > Program Files (x86) > STMicroelectronics > Software > DfuSe v3.0.5 > Bin

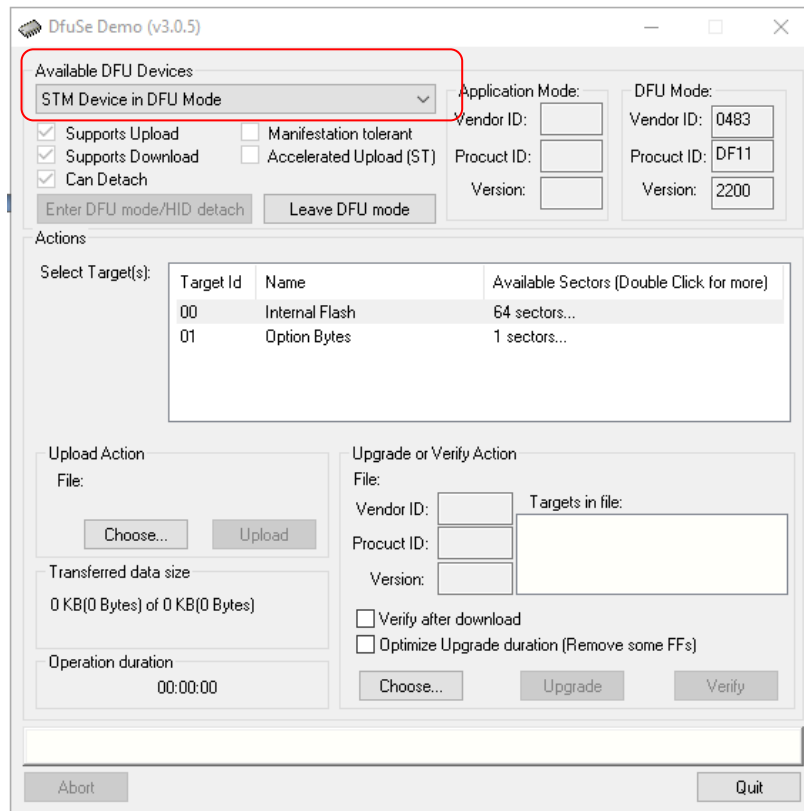
| Name                                    | Date modified    | Type                  | Size     |
|-----------------------------------------|------------------|-----------------------|----------|
| Doc                                     | 14/04/2016 17:53 | File folder           |          |
| Driver                                  | 14/04/2016 17:53 | File folder           |          |
| DfuFileMgr.exe                          | 30/08/2015 23:07 | Application           | 49 KB    |
| DfuSeCommand.exe                        | 30/08/2015 23:07 | Application           | 27 KB    |
| DfuSeDemo.exe                           | 30/08/2015 23:07 | Application           | 1,881 KB |
| MCD-ST Liberty SW License Agreement ... | 16/11/2011 16:50 | Foxit Reader PDF ...  | 18 KB    |
| readme.txt                              | 30/08/2015 22:42 | Text Document         | 3 KB     |
| STDFU.dll                               | 30/08/2015 22:36 | Application extens... | 71 KB    |
| STDFUFiles.dll                          | 30/08/2015 22:50 | Application extens... | 33 KB    |
| STDFUPRT.dll                            | 30/08/2015 23:00 | Application extens... | 28 KB    |
| STDFUTester.exe                         | 29/09/2012 21:17 | Application           | 1,446 KB |
| STTubeDevice30.dll                      | 30/08/2015 22:36 | Application extens... | 27 KB    |
| version.txt                             | 30/08/2015 22:41 | Text Document         | 6 KB     |





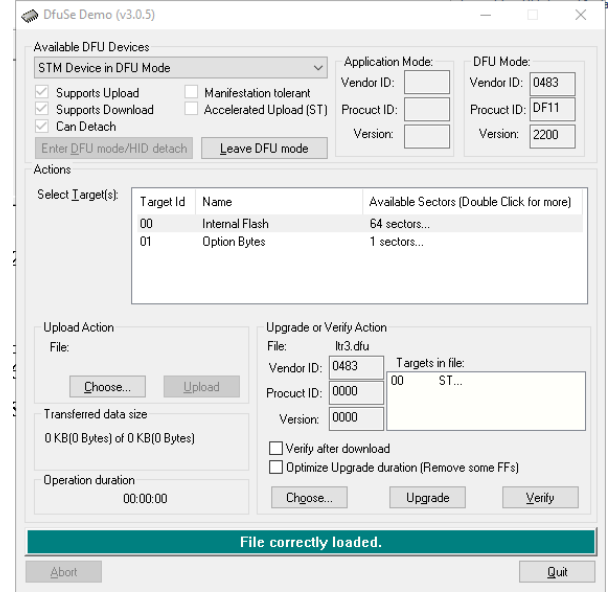
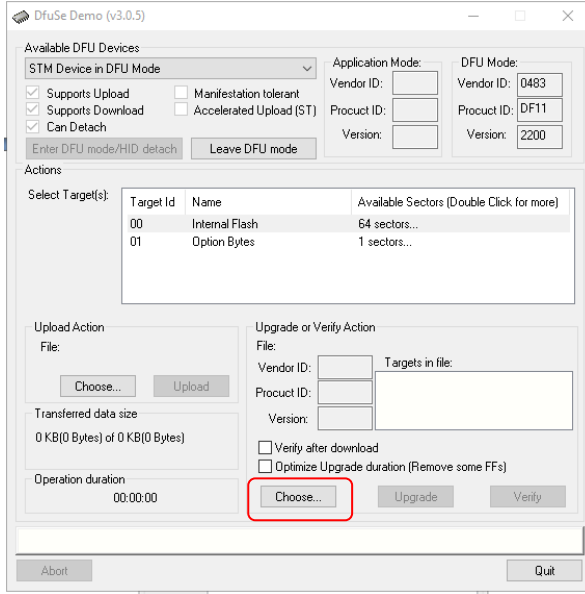
After the device successfully recognized by the computer the dFuse software will automatically recognize the device as shown below;

Cihaz bilgisayar tarafından başarı bir şekilde tanındığında dFuse yazılımı tarafından da otomatik olarak algılanacaktır. Aşağıda görülmektedir;



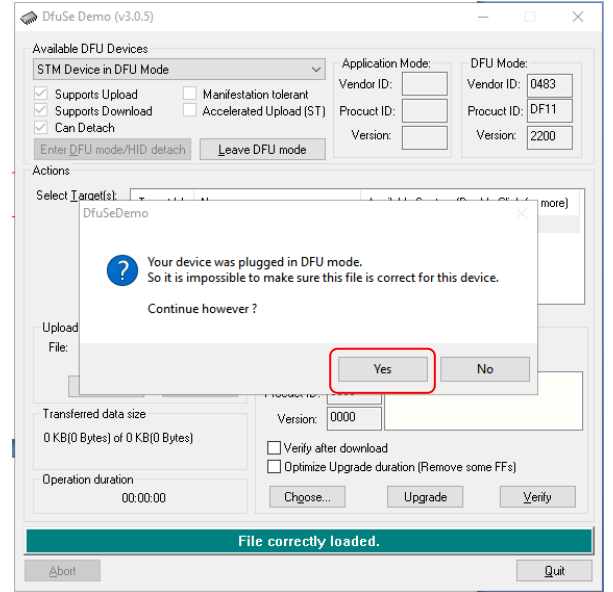
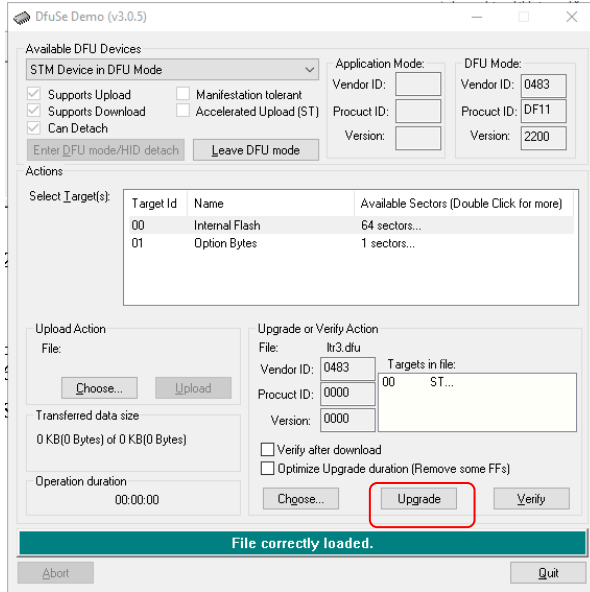
Use "Choose" button to load new firmware which has "\*.dfu" suffix and open the file.

"Choose" butonu kullanılarak yüklenecek "\*.dfu" uzantılı yeni yazılım açılır.

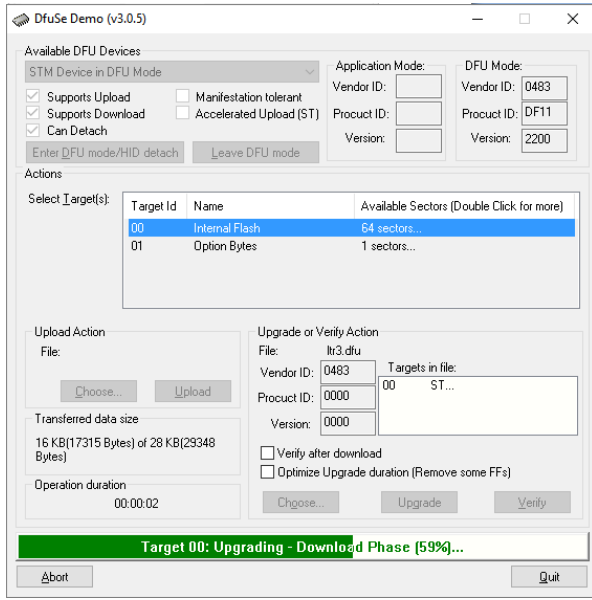


Use "Upgrade" button to load new firmware and select "Yes" to start upgrade operation.

"Upgrade" butonu kullanılarak yazılım yükleme başlatılır, gelen ekranda "Yes" seçilir.



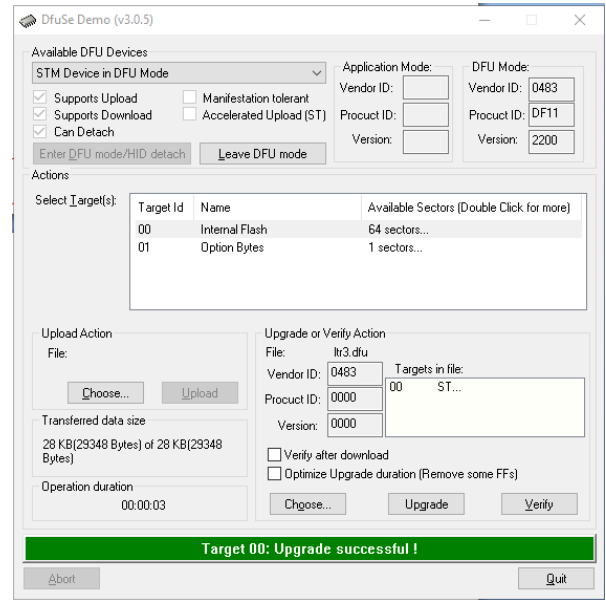
Upgrading screen will be as follows;



When upgrading finished LTr3 device will hang on.

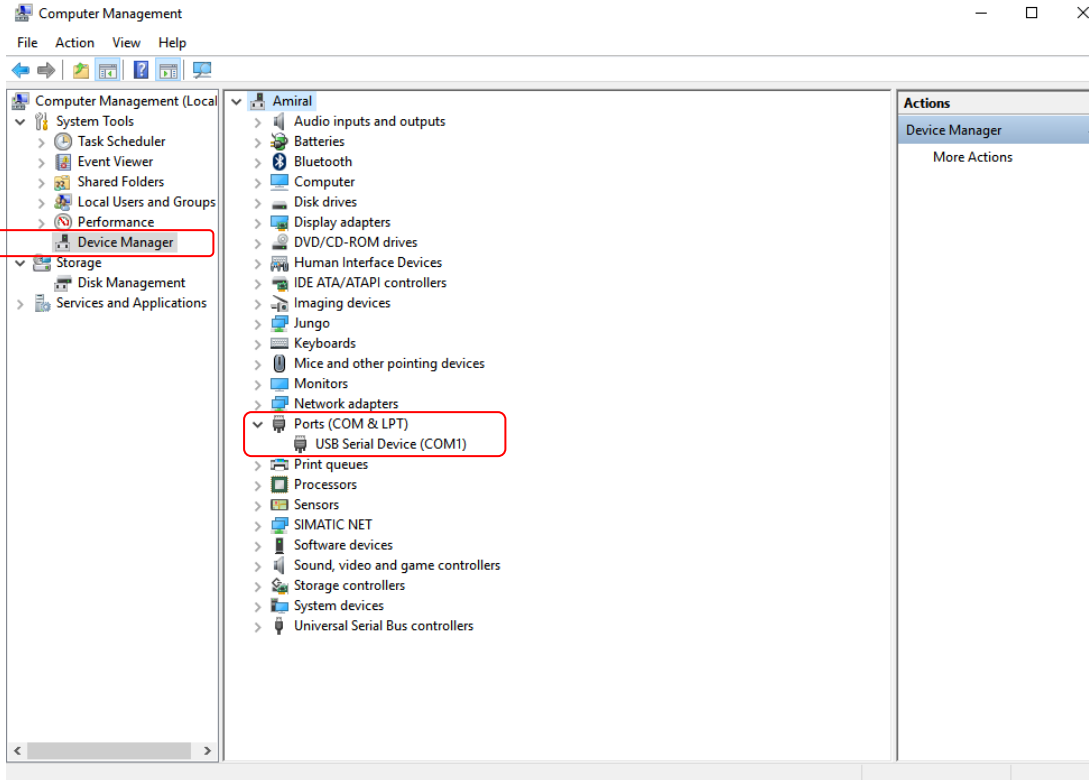
Note: Please Power On/Off the device!!!

Güncelleme ekranı aşağıdaki gibidir;



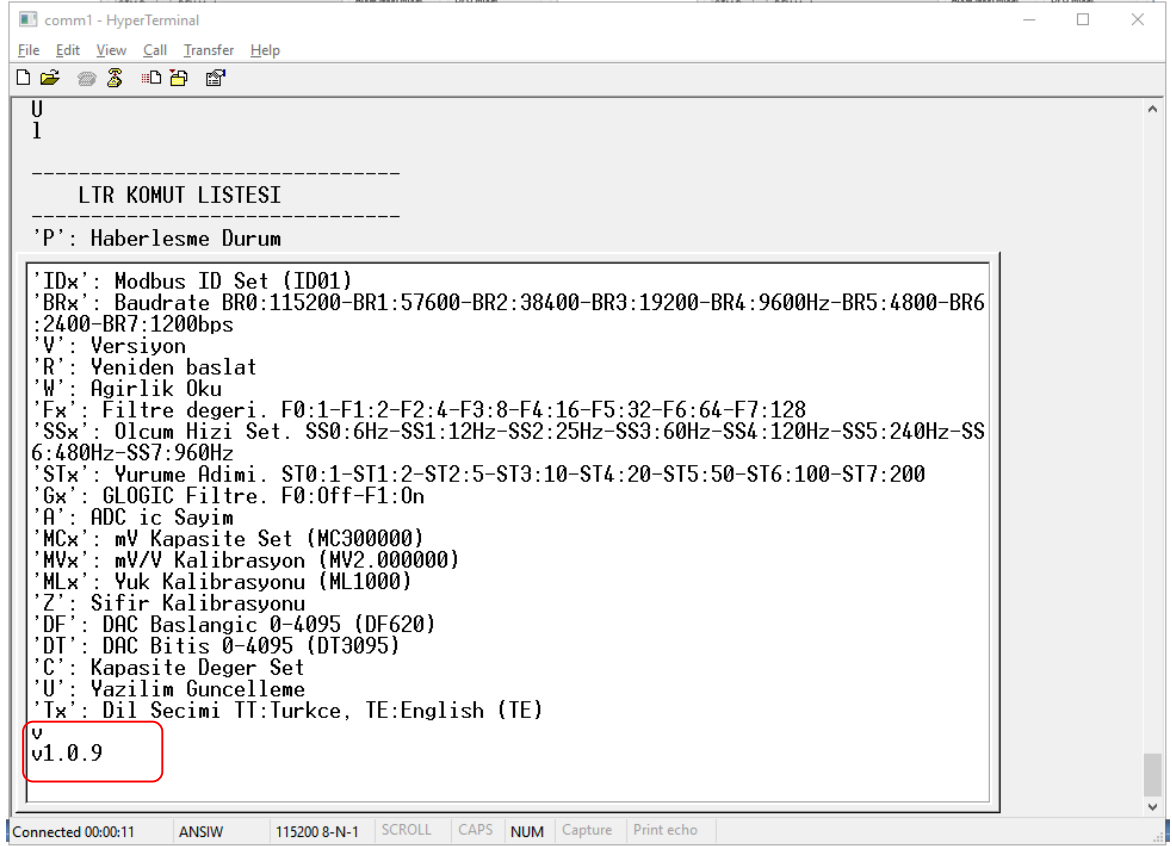
Güncelleme bittiğinde LTr3 cihazı askıda kalır.

Not: Cihazın enerjisini Aç/Kapat yapınız!!!



Now, ready to check that new version is OK. Check that the Device Manager and see Serial Device as Comm port. Use "V" command on terminal to verify the new version number.

Son olarak, yeni versiyon yüklendiğini kontrol ediniz. Aygıt Yöneticisinden ComPort cihaz olarak görüldüğünü kontrol ediniz. "V" komutu kullanarak versiyon numarasını kontrol ediniz.



```
comm1 - HyperTerminal
File Edit View Call Transfer Help
[Icons]
U
1
-----
LTR KOMUT LISTESI
-----
'P': Haberlesme Durum

'IDx': Modbus ID Set (ID01)
'BRx': Baudrate BR0:115200-BR1:57600-BR2:38400-BR3:19200-BR4:9600Hz-BR5:4800-BR6:2400-BR7:1200bps
'V': Versiyon
'R': Yeniden baslat
'W': Agirlik Oku
'Fx': Filtre degeri. F0:1-F1:2-F2:4-F3:8-F4:16-F5:32-F6:64-F7:128
'SSx': Olcum Hizi Set. SS0:6Hz-SS1:12Hz-SS2:25Hz-SS3:60Hz-SS4:120Hz-SS5:240Hz-SS6:480Hz-SS7:960Hz
'STx': Yurume Adimi. ST0:1-ST1:2-ST2:5-ST3:10-ST4:20-ST5:50-ST6:100-ST7:200
'Gx': GLOGIC Filtre. F0:0ff-F1:0n
'A': ADC ic Sayim
'MCx': mV Kapasite Set (MC300000)
'MVx': mV/V Kalibrasyon (MV2.000000)
'MLx': Yuk Kalibrasyonu (ML1000)
'Z': Sifir Kalibrasyonu
'DF': DAC Baslangic 0-4095 (DF620)
'DT': DAC Bitis 0-4095 (DT3095)
'C': Kapasite Deger Set
'U': Vazilim Guncelleme
'Tx': Dil Secimi TT:Turkce, TE:English (TE)

v
v1.0.9

Connected 00:00:11  ANSIW  115200 8-N-1  SCROLL  CAPS  NUM  Capture  Print echo
```