

### Set Date and Time for Festo PLC

How to read and write Date & Time from the command prompt.

CECC;  
FDT

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# 1 Components/Software/ used

Type/Name	Version Software/Firmware	Date of manufacture
FFT – Festo Field Device Tool	2.6.21	10/08/2016
CODESYS provided by Festo	V3.5.7 SP2 pbF	30/06/2016
Putty	Release 0.70	08/07/2017

Table 1.1: Components/Software used

Festo software are available on Festo Support Portal:

→ [https://www.festo.com/net/en-gb\\_gb/SupportPortal/default.aspx](https://www.festo.com/net/en-gb_gb/SupportPortal/default.aspx)



Picture 1.1: Support portal

Putty software : <http://www.putty.org/>

## 2 Login to PLC with Telnet

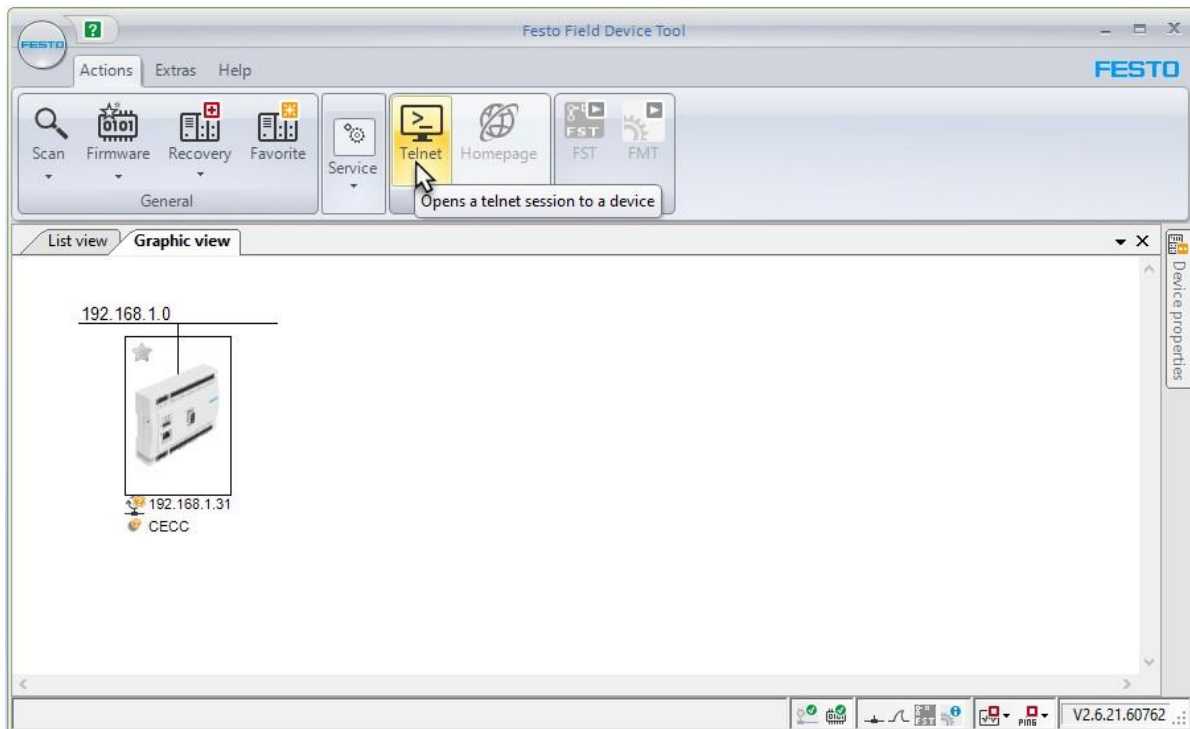
### 2.1 Pre conditions

Festo PLC are Linux based systems and with a telnet session we can write Linux command.

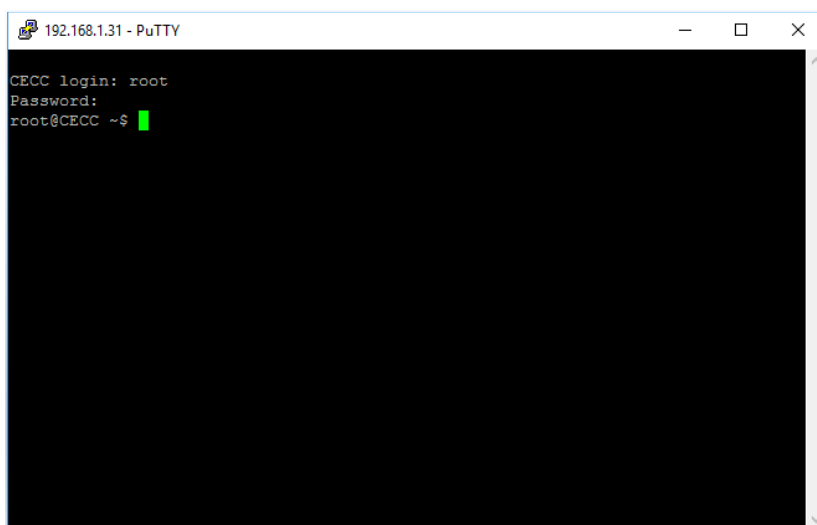


Login as **root** password is **Festo**

Putty is implemented in Festo Field Device Tool and we need it to open a telnet session.



Picture 2.1: Telnet session with Festo Field Device Tool.



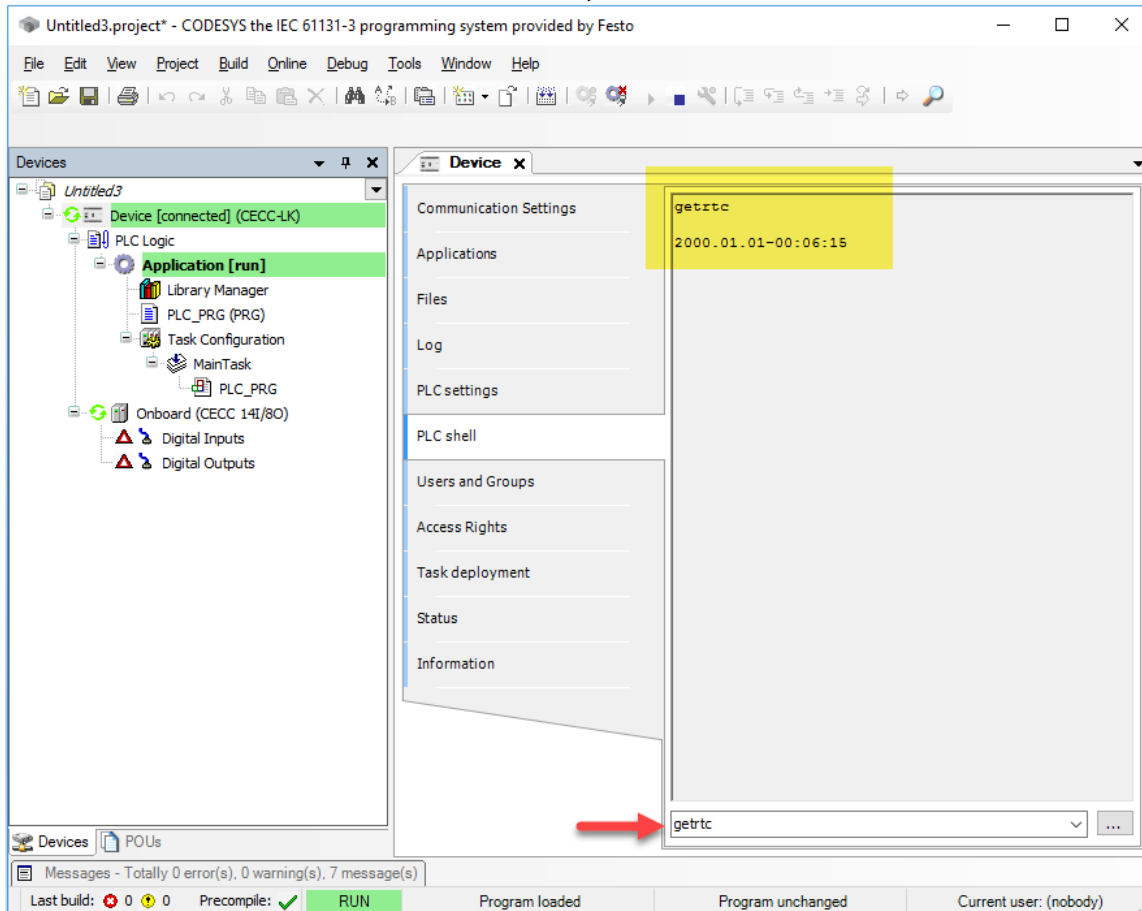
Picture 2.2: Putty used standalone, this is the command prompt.

### 3 How to use?

#### 3.1 Look at the Codesys side

With the command #getrtc in the PLCShell we can read the actual RTC date & Time.

We can also use #setrtc but let's do it without CoDeSys.



Picture 3.1: CoDeSys view : PLC Shell.

#### 3.2 Display Current Date and Time



##### Note

To simplify this documentation, next commands will be prefixed by # and the answer with >>>

Go back to the command prompt and simply with the following command we can display the current date & time

# date

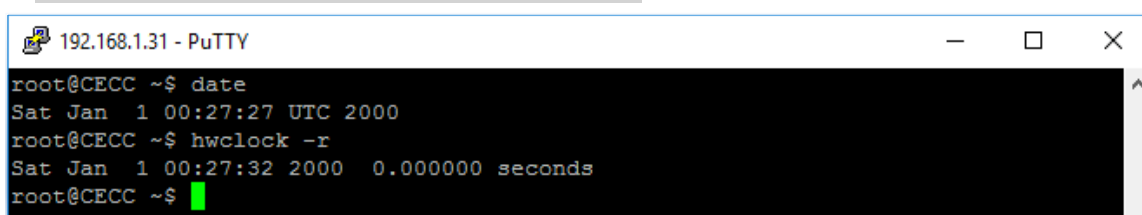
>>> Sat Jan 1 00:19:55 UTC 2000

#### 3.3 Display the Hardware clock RTC

Like the date command we can also display the hardware clock

# hwclock -r

>>> Sat Jan 1 00:23:33 2000 0.000000 seconds



Picture 3.2: Putty session : read date & time

How to use?

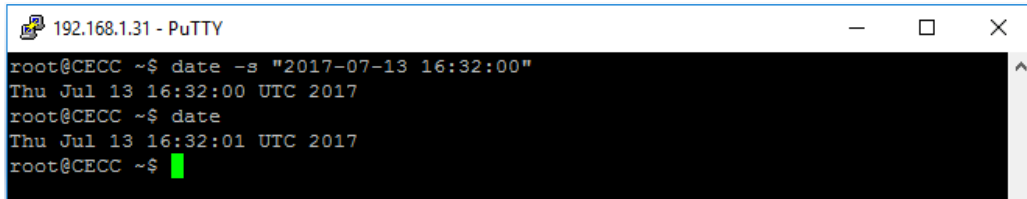
### 3.4 Set Date & Time

Use the following syntax to set the date & time

```
# date -s "AAAA-MM-DD hh:mm:ss"
```

```
>>> Thu Jul 13 16:32:00 UTC 2017
```

If we check again with the date command, we can see the correct setting.



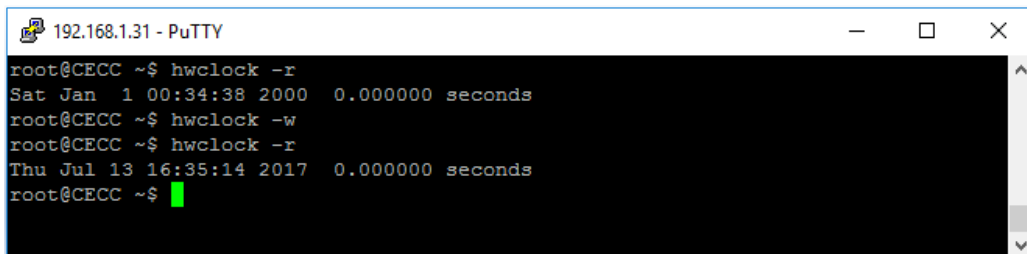
```
192.168.1.31 - PuTTY
root@CECC ~$ date -s "2017-07-13 16:32:00"
Thu Jul 13 16:32:00 UTC 2017
root@CECC ~$ date
Thu Jul 13 16:32:01 UTC 2017
root@CECC ~$
```

Picture 3.3: Putty session : set date & time.

### 3.5 Set the Hardware Clock to the current System Time

With the command -w we will set the hardware clock to the current system time.

```
# hwclock -w
```

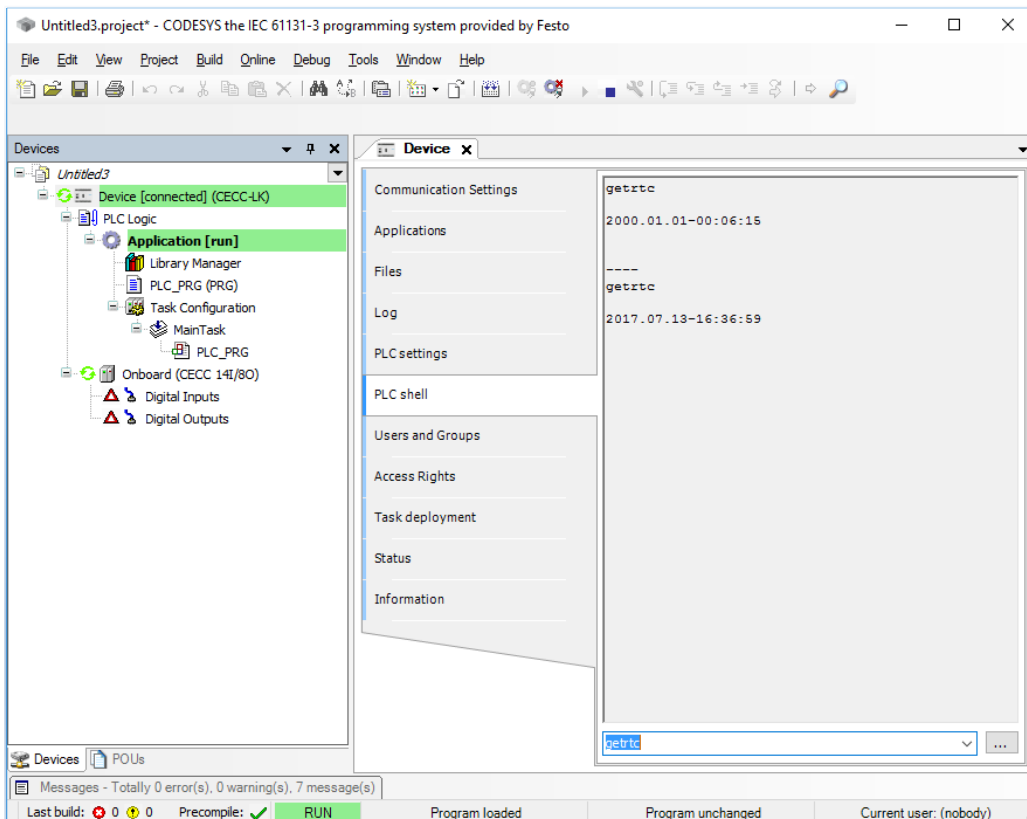


```
192.168.1.31 - PuTTY
root@CECC ~$ hwclock -r
Sat Jan 1 00:34:38 2000  0.000000 seconds
root@CECC ~$ hwclock -w
root@CECC ~$ hwclock -r
Thu Jul 13 16:35:14 2017  0.000000 seconds
root@CECC ~$
```

Picture 3.4: Putty session : set RTC.

### 3.6 Return to the CoDeSys side

To control the date & time setting re use the syntax “getrtc in the PLC shell, the system is now on time.



Picture 3.5: CoDeSys view : #getrtc.