Timezone setting for GU / QU 192 V2 movements

If you do not use an other timezone than CET, you do not need this procedure described below in chapter 1.

Then you simply can use the MOBATeleSim to send the PC time to the movement.

Start MOBATeleSim, select the COM port, select "UTC" left top and click on Start button to start sending the current PC time, but as UTC.

No other settings required.

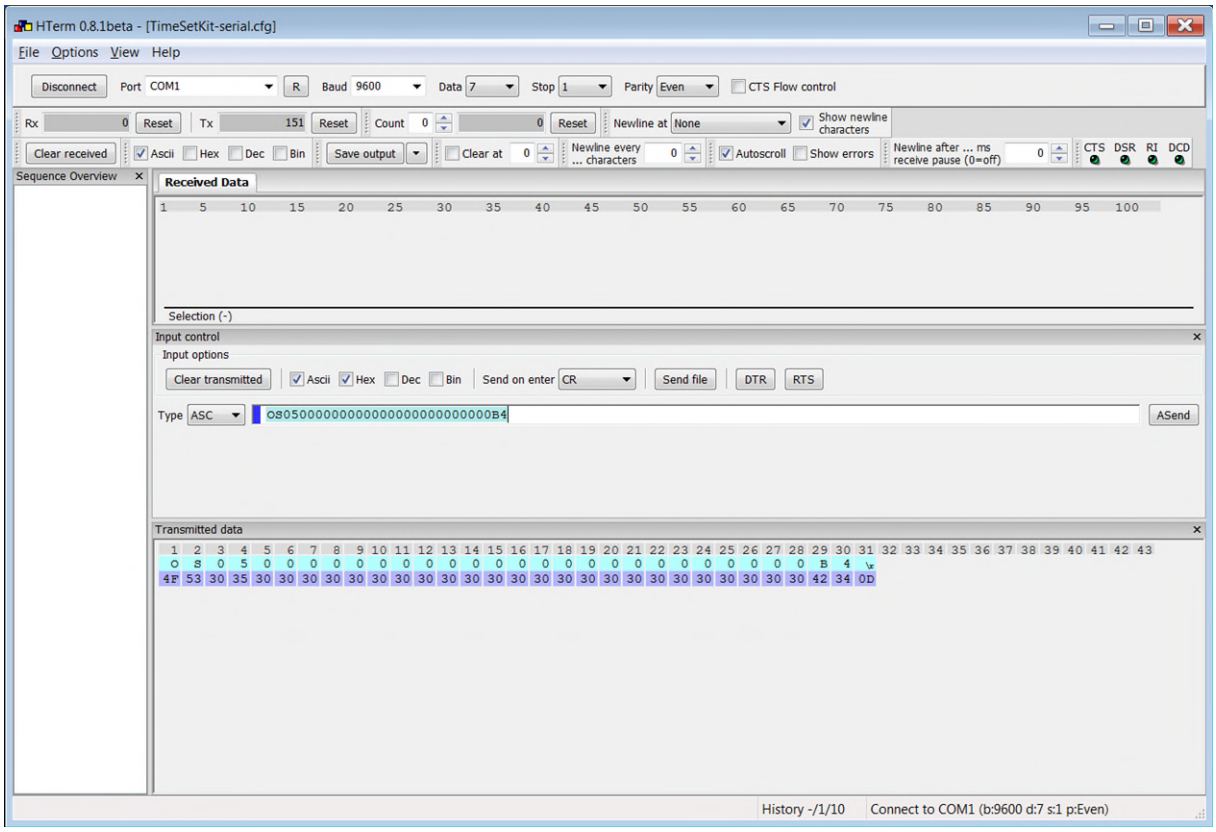
The MobaSrc.exe also works in the same way, but COM Port is fix programmed to COM 1.

After some seconds, the movement starts running to current CET local time.

If any other timezone is used, you have to follow the procedure below.

1. Set special timezone

Start HTerm software and load config file, or do settings as shown below:



Copy ASCII string into the field behind "Type" ASC:
You find sample strings below:

Atlantic Time UTC-4, with DST:
OS0203020700783C0B01070078FF10

UTC -1, with DST:
OS0203FF0700783C0AFF0700B4FFC4

UTC, with DST:
OS0203FF0700783C0AFF0700B40000

CET, with DST:
OS0203FF0700783C0AFF0700B4003C

UTC+2h, with DST:
OS0203FF0700783C0AFF0700B40078

UTC+3h, with DST:
OS0203FF0700783C0AFF0700B400B4

UTC+4h, with DST:
OS0203FF0700783C0AFF0700B400F0

UTC+2h, no DST:
OS05000000000000000000000000078

UTC+3h, no DST:
OS05000000000000000000000000B4

If you need to adapt the string, you have to do it according to the description in the manual.
See page 12.

7.4 Telegram with Offset to UTC and Season Data (Su - Wi)

Definition: The telegram must be transmitted at least twice:
9600 bit/s, 7 data bits, even parity, 1 stop bit.

Format:

Byte Nr.		Designation	Sign	HEX Code
1		Start sign	O	4F
2		Identification season telegram	S	53
3	1)	Type of season – entry tens	0	30
4		Type of season – entry units	2 or 5	32 or 35
5 – 14	2)	Daylight saving Time start date / time	0 .. 9, A .. F	30 .. 39, 41 .. 46
		Daylight saving Time Offset, value ±120 min:		
15		High Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
16		Low Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
17 – 26	2)	Daylight saving Time end date / time	0 .. 9, A .. F	30 .. 39, 41 .. 46
		Local Offset, value ±780 min:		
27		High Byte, High Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
28		High Byte, Low Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
29		Low Byte, High Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
30		Low Byte, Low Nibble	0 .. 9, A .. F	30 .. 39, 41 .. 46
31		End of telegram	CR	0D

1) Following types of season entries are available (see below):
   2: Season switch at determined day every year.
   5: No season switch, just offset to UTC

2) Definition of summer time start and end date / time:

Type(1B)	SumTime begin Time/Date (5B)				SumOffset (min) (1B)	SumTime end Time/Date (5B)				LocalOffset to UTC (min)(2B)
2	month	WDM	WD	min of day	i.e. 60 (MEZ)	month	WDM	WD	min of day	i.e. 60 (MEZ)
5	not used				no sumtime	not used				i.e. 60 (MEZ)

Legend:
WDM: 1 .. 4 = first .. fourth WD (weekday) of month (e.g. first Saturday in April)
1...31 = first ...thirty-first day of the month (e.g. 21. April)
-1 (FF) / -2 (FE) = last / last but one WD of month (e.g. last Sunday in March)
WD: Weekday: Monday = 1 … Sunday = 7 or Day = 0

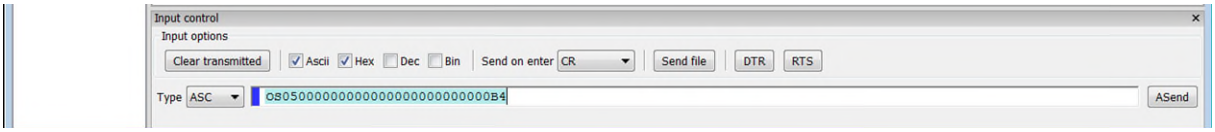
Example for MEZ:

1	**2**	**3/4**	**5/6**	**7/8**	**9/10**	**11..14**	**15/16**	**17/18**	**19/20**	**21/22**	**23..26**	**27..30**	**31**
O	S	02	03	FF	07	0078	3C	0A	FF	07	00B4	003C	0D

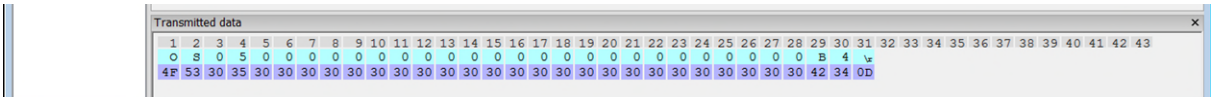
3/4: Type 2
5/6: Month 03 -> March
7/8: Hex FF = -1 -> last weekday of month
9/10: Weekday 7 -> Sunday
11..14: Hex 0078 = 120 -> 120 min. of day -> 02.00
15/16: Season offset 60 min.
17/18: Month 10 -> October
19/20: see 7/8
21/22: see 9/10
23..26: Hex 00B4 = 180 min. -> 03.00
27..31: Offset to UTC 60 min.

2. Commissioning of the movement QU 192:

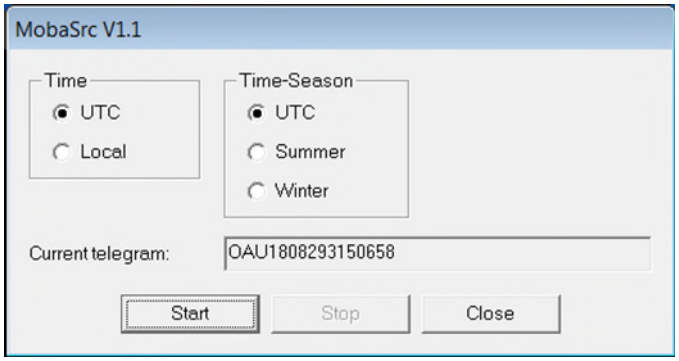
- Insert battery
- Wait until movement stops running => reached 12:00 position
- Connect PC USB-Serial adapter via IF 494 interface to the movement connector "IN"
- Click on "Connect" button in HTerm left top
- Send serial string with Timezone from HTerm by pressing "Enter" key on PC keyboard



- Copy the string a second time into Type field and send it again by pressing "Enter"



- The string should be sent as shown above and during send of the string the **green LED** of the IF 494 shall flash shortly
- Click on "Disconnect" button in HTerm left top
- Start MobaSrc.exe tool
- Do settings as shown below:



- Press "Start" button to start sending UTC time to the movement.
  Check green LED of the IF 494. It shall flash every second.
  The telegrams are send every second and after approx. 3 seconds the movement shall start running to correct local time.
- In case the movement runs to CET time instead of the sent timezone, there was a mistake in the timezone telegram.

After removing the battery from the QU 192, the settings are lost and has to be done again.