POCKETNAVIGATION.DE, Forum GPS-Logger, offizielle Antwort von Al bei Wintec in Taiwan
mit Übersetzung(sversuchen)

Farbkodierung wie folgt:

SCHWARZ: mein Original-Text
BLAU: Al's Text
ROT: meine Übersetzung
GRÜN in [] Klammern: meine Kommentare/Interpretationen/etc.

Dear Christoph,

Thanks for your message.
But I don't have a good holiday, because I have to work for my family and not much time for rest.
Below blue parts are my comment, I hope you could get enough information.

Lieber Christoph,

Danke für Deine Nachricht.
Leider hatte ich keinen besonders schönen Urlaub [anlässlich Chinesischem Neujahr], da ich für meine Familie arbeiten musste und nicht viel Zeit zum Erholen hatte.
Untenstehend sind blaue Passagen mein Kommentar, ich hoffe es sind alle für Dich nötigen Informationen enthalten.

Hello Al, hello Joseph,

first of all, let me wish you all the Best for the Chinese New Year, and I hope you had nice celebrations as well as a good holiday!

Thank you also for your very quick reply to my former problem concerning BT communication of the WBT-201 with my hx4700 PDA !

I would however place in question some other quite important issues of our WBT-201 users group here in Europe. The following is a summary of literally hundreds of postings and discussions which we had!

We are a group of WBT-201 users within the forum "Pocketnavigation" (http://www.pocketnavigation.de/). With more than 116,000 registered users this forum is probably the largest one in Europe dedicated to GPS.
Basically we all are very happy with the unit, really many fine features for a moderate price!

In the past, we had found problems with the unit:
Earlier, we reported the wrong conversion of TK1 files to NMEA. You adjusted it, thank you for that! You then provided TimemachineX as a test version 2.1.6beta to a single user. While this is a great support, it did not help the community - nobody else of us could test the new version!

We now found further mistakes in the NMEA code generated by TimemachineX from the TK1 log, and would like to check, discuss and hopefully fix that with you. For easier communication, we will always refer to the NMEA file generated by TimemachineX as "NMEA/TMX".

1. The informations for the sentences GSA und GSV are not included in the TK1 file, thus these sentences should not be "artificially" generated by TimemachineX in the NMEA/TMX!
Yes, Sentences GSA and GSV are artificial, and that are for other application.
Ja, die GSA- und GSV-Sätze sind "künstlich" generiert und für andere Applikationen vorgesehen7nötig/gedacht [?].

2. Furtheron, we found errors in the RMC and GGA sentences:

We have compared an NMEA/TMX with a simultaneous log done with the u-center software by u-blox, and with an NMEA file converted from the original TK1 with an application which was programmed by one of our users (="OWN").

2.1. RMC:

In the NMEA/TMX the status is always defaulted to "A" (as we see in many files).
The log data should under GPS got fix. So, that all of log data are show 'A'.
[Hach? Interpretiert:] Die Daten sollen nur geloggt werden, wenn der Empfänger einen Fix hat. Daher haben alle Sätze den Status "A".

```
$GPRMC,093230,    A,4802.408795,N,00751.671598,E,27.4, 192.0, 050208,,,D*44_________________NMEA/TMX
$GPRMC,093230.000,A,4802.4088,  N,00751.6716,  E,27.02,184.11,050208,,,A*5F_________________u-center
$GPRMC,093226.000, ,4802.4389,  N,00751.6782,  E,27.55,189.22,050208,,,*0E_________________OWN
____________________| Status A=Valid, V=Invalid
_____________________________________________________| Speed over Ground in knots
_____________________________________________________| Course over Ground
```

Obviously, only RMC sentences with status "A" are logged in the TK1. When the status is "V" the sentence is not logged into the TK1 file, is that right?
Yes. That is right.
Ja, das ist richtig.

This can be clearly seen in the following logs, done parallely with u-center and with the WBT, respectively.

U-CENTER: all RMC sentences are logged, despite of status:

```
$GPRMC,100029.000,A,4802.7003,N,00751.3024,E,24.04,163.51,060208,,,A*56
$GPRMC,100030.000,A, ... (data omitted for reason of clarity!)
$GPRMC,100031.000,A,
$GPRMC,100032.000,A,
$GPRMC,100033.000,A,
$GPRMC,100034.000,A,
$GPRMC,100035.000,A,
$GPRMC,100036.000,A,
$GPRMC,100037.000,A,
$GPRMC,100038.000,A,
$GPRMC,100039.000,A,
$GPRMC,100040.000,V,4802.6301,N,00751.3253,E,21.67,171.74,060208,,,N*47
$GPGGA,100040.000,4802.6301,N,00751.3253,E,0,00,99.9,232.0,M,47.9,M,,0000*66
$GPGSA,A,1,,,,,,,,,,,,,99.9,99.9,99.9*09
$GPGSV,3,1,12,03,70,297,13,18,47,081,,21,31,062,16,06,11,111,*74
$GPGSV,3,2,12,27,11,314,,08,05,339,,16,51,194,14,22,46,145,15*70
$GPGSV,3,3,12,19,38,293,,25,12,294,11,15,08,041,,26,07,030,*73
$GPRMC,100041.000,V,4802.6242,N,00751.3266,E,21.67,171.74,060208,,,N*46
$GPGGA,100041.000,4802.6242,N,00751.3266,E,0,00,99.9,232.0,M,47.9,M,,0000*67
$GPGSA,A,1,,,,,,,,,,,,,99.9,99.9,99.9*09
$GPGSV,3,1,12,03,70,297,15,18,47,081,,21,31,062,14,06,11,111,*70
$GPGSV,3,2,12,19,38,293,,08,05,339,,16,51,194,13,22,46,145,15*7F
$GPGSV,3,3,12,27,11,314,,25,12,294,10,15,08,041,,26,07,030,*7A
$GPRMC,100042.000,V, ... (data omitted for reason of clarity!)
$GPRMC,100043.000,V,
$GPRMC,100044.000,V,
$GPRMC,100045.000,V,
$GPRMC,100046.000,V,
```

```
$GPRMC,100047.000,V,
$GPRMC,100048.000,V,
$GPRMC,100049.000,V,
$GPRMC,100050.000,V,
$GPRMC,100051.000,V,
$GPRMC,100052.000,V,
$GPRMC,100053.000,V,4802.5706,N,00751.3382,E,0.00,171.74,060208,,,N*7A
$GPGGA,100053.000,4802.5706,N,00751.3382,E,0,00,99.9,232.0,M,47.9,M,,0000*69
$GPGSA,A,1,,,,,,,,,,,,,99.9,99.9,99.9*09
$GPGSV,3,1,12,03,70,297,44,18,47,081,,21,31,062,38,06,11,111,23*7B
$GPGSV,3,2,12,19,38,293,30,08,05,339,,16,51,194,37,22,46,145,41*7B
$GPGSV,3,3,12,27,11,314,35,25,12,294,24,15,08,041,32,26,07,030,26*7E
$GPRMC,100054.000,V,4802.5919,N,00751.4070,E,19.95,101.97,060208,,,N*4A
$GPGGA,100054.000,4802.5919,N,00751.4070,E,0,04,8.6,232.1,M,47.9,M,,0000*55
$GPGSA,A,1,03,16,22,25,,,,,,,,,8.6,8.6,1.0*32
$GPGSV,3,1,12,03,70,297,43,18,47,081,,21,31,062,41,06,11,111,24*75
$GPGSV,3,2,12,19,38,293,29,08,05,339,33,16,51,194,32,22,46,145,43*74
$GPGSV,3,3,12,27,11,314,36,25,12,294,28,15,08,041,23,26,07,030,20*77
$GPRMC,100055.000,A,4802.5953,N,00751.4213,E,23.97,88.63,060208,,,A*6A
$GPGGA,100055.000,4802.5953,N,00751.4213,E,1,04,8.5,232.2,M,47.9,M,,0000*5C

NMEA/TMX: only RMC sentences with status "A" are logged:

$GPRMC,100029,A,4802.700293,N,00751.302399,E,25.2,152.0,060208,,,D*40
$GPGGA,100029,4802.700293,N,00751.302399,E,2,07,2,232,M,15.2,M,999.9,*65
$GPGSA,A,3,14,30,01,05,07,06,47,,,,,,7.38,6.01,4.27*08
$GPGSV,3,1,12,14,67,092,30,22,25,182,16,30,24,040,30,31,49,336,*74
$GPGSV,3,2,12,01,56,341,14,05,08,043,28,07,39,098,36,06,35,088,34*74
$GPGSV,3,3,12,16,44,228,,42,54,141,,20,10,315,,47,22,106,28*7C
$GPRMC,100033,A,4802.672993,N,00751.314597,E,25.7,155.0,060208,,,D*49
$GPGGA,100033,4802.672993,N,00751.314597,E,2,07,2,232,M,15.2,M,999.9,*6E
$GPGSA,A,3,14,30,01,05,07,06,47,,,,,,7.38,6.01,4.27*08
$GPGSV,3,1,12,14,67,092,30,22,25,182,16,30,24,040,30,31,49,336,*74
$GPGSV,3,2,12,01,56,341,14,05,08,043,28,07,39,098,36,06,35,088,34*74
$GPGSV,3,3,12,16,44,228,,42,54,141,,20,10,315,,47,22,106,28*7C
$GPRMC,100055,A,4802.595294,N,00751.421295,E,17.3,126.0,060208,,,D*4A
$GPGGA,100055,4802.595294,N,00751.421295,E,2,07,2,232,M,15.2,M,999.9,*6C

If we are right with our interpretation, it should definitively be OK that only valid RMC sentences are logged.
Yes. The WBT201 not have big memory for record invalid information. So WBT201 just can record valid data.
Ja. Die WBT201 hat nicht so viel logger-Speicher, um auch ungültige [? "V"=> invalid/warning...] Informationen [Sätze] zu loggen. Daher kann die
WBT201 nur gültige Daten [Sätze] loggen.


2.2. GGA:

In the NMEA/TMX the status is always "2" (=DGPS). This certainly is wrong: As you can see in the example below 1) u-center logged status "1", and
more important: 2) the conversion of our user indicates that the GGA status is not included (thus: not logged) in the TK1.
Thus, this field should be left empty in the NMEA/TMX!
Yes, this field also artificial. I will fix in next release version.
Ja, dieses [Status-]Feld ist künstlich [generiert]. Ich werde das in der nächsten Version [von TMX] korrigieren.

The same applies for HDOP (always "2"), Number of SVs used (always "07"), and Geoid Separation (always "15.2"), these 3 fields should be left empty
in the NMEA/TXT file, because the values are obviously not contained in the TK1 file!
Here are our data examples: again just one line of a given GPS sentence:
Is same, what do you think if I remove all artificial field.
You know, I worry other customers will complain format change again if I do that.
```

Ist dasselbe wie oben, was hältst Du davon, wenn ich sämtliche "künstlichen" Felder/Daten [in der nächsten TMX-Version] entferne? **[JAA, Sieg auf der ganzen Linie ;>)]**
Du solltest wissen, ich mache mir Sorgen, dass sich andere Kunden beschweren könnten, wenn ich das Format wieder ändere.

```
$GPGGA,093230,      4802.408795,N,00751.671598,E,2,07,2,  233,  M,15.2,M, 999.9,*6B________NMEA/TMX
$GPGGA,093230.000,  4802.4088,  N,00751.6716,  E,1,08,1.1,233.5,M,47.9,M,      ,0000*5D____u-center
$GPGGA,093231.000,  4802.4009,  N,00751.6708,  E, ,  ,   ,234.0,M,    , ,      ,0000*16____OWN
_____________________________________________________| Status 0=Invalid, 1=2D/3D, 2=DGPS, 6=DeadReckoning
_____________________________________________________| Number of SVs used
_____________________________________________________| HDOP
_____________________________________________________________________| Geoid Separation = Alt(HAE)-Alt(MSL)
_____________________________________________________________________| Age of Differential Corrections
```

3. OK, in NMEA, the number of decimal places with time, latitude, and longitude probably are not important.

4. We would like to add and negotiate some more issues:

4.1. In the past you repeatedly provided beta-versions of TimeMachineX and TMXTool to selected users = those who asked for (including me myself ;>)!

Could you give us permission to post these, and any future versions, in our forum? It would be very valuable "public beta" software for you, and would be helpful for all of us, because we could then test and immediately give you valuable feedback!!
Sure!!! You could post any information from me for any body.
But there is one thing need to pay attention. That is don't convert other format to our track file for using Time Machine X (ex. gpx or nmea….-->Tk1 ..or TK2).
Because I wish the Time Machine X only support our products and not also support product of other company.
I hope you could understand.
Natürlich!!! Ihr könnt jegliche Informationen, die ihr von mir bekommt, posten.
[Frei übersetzt:] ABER: Bitte konvertiert nicht andere Formate (z.B. gpx oder nmea) zu unserem Format (TK1 oder TK2), um dann TimeMachineX damit zu füttern [sehr frei...].
Denn ich möchte, dass TimeMachineX nur mit unseren Produkten [GPS-Empfängern] verwendet werden kann, und nicht auch mit Produkten anderer Hersteller.
Ich hoffe ihr versteht das. **[KLARO, oder? ;>)]**

4.2. Hence, it would be helpful both for you, and for us, as keen users, if we could get these documentations:
WBT201-technical-document_1_Protocol.pdf
WBT201-technical-document_2_LOGDATA.PDF and could we post these files in our forum?

Ok, you could post.
But you know my scruple. So there are some points should be attention.
1. You could develop applications of yourself depend on those documents. And you also can sell your software.
2. You should not use those documents for GPS device of other brand.
3. Don't convert any format to TK1, TK2, TK3, TK4 and, TKS track files.

OK, könnt ihr posten.
Du kennst aber meine Bedenken. Diese Punkte sollten berücksichtigt werden:
1. Ihr dürft ["could" in Al's Englisch...] auf Basis dieser Dokumente Anwendungen entwickeln, und diese auch kommerziell vertreiben.
2. Ihr dürft diese Dokumente nicht für GPS-Empfänger anderer Hersteller einsetzen.
3. Ihr dürft kein anderes Format in TK1, TK2, TK3, TK4 und TK5 Track-Dateien konvertieren.

4.3. Could you maybe provide details about Header/Data/Footer of your file formats (TK1, TK2, TK3, TK4).
In the last version of TimeMachineX a TK4 subfolder has appeared, what are you planning for this??

You could reference attachments.

The TK4 is simple and that format is show as text.
TK4 is landmarks file for G-Trender for bike. (like as POI)
You also can reference attachment file “G-Trender_ABC_970218.rar”.
You are first of the world see this user manual. So that may be include some wrongs.
Siehe die Dateianhänge.
Das TK4-Format ist ein einfaches Text-Format [?].
Es ist eine landmark [hach??] Datei für den G-Trender für's bike [Fahrrad/Motorrad] (eine POI-Datei) [alles klar, denk ich].
Siehe dazu die angehängte Datei “G-Trender_ABC_970218.rar” [wurde von mir fürs forum geändert: zip!].
Ihr seid weltweit die ersten, die dieses Handbuch zu sehen bekommen. Es können noch einige Fehler enthalten sein.

5. Some additional wishes:

The ANTARIS-Chip has 4 outputs, Target 0 v... 3. We could not find out from which of the outputs the logger gets the data.

Several of our users would like to ask the following: would it be possible to add a programmable feature (through u-center, would require one free target-output) to select which sentences are logged? Possibly with the option to include GSA and GSV at a selectable time interval?

The first version of Time Machine X includes those functions.
But I remove those. Because too many people not understand and sometimes make wrong setting lead to WBT201 no work.
Die erste Version von TimeMachineX inkludierte diese Funktionen. [v 1.0 R6 bei www.wintec-gps.de downloadbar!]
Ich habe sie jedoch wieder entfernt, da allzu viele user sich nicht auskannten und manchmal falsche Einstellungen vornahmen, wodurch die WBT201 nicht mehr funktionierte [?wohl nur der logger?].

Generally, many of us users would like to have the option to select sentences for the logger!
Maybe this is not feasible for the WBT-201, but we hope that WINTEC as an innovative company will continue the development of the WBT series and develop a device similar to the 201, but based on the new u-blox 5 chip?

Why you know our plan? ;>)
Yes, we are going to develop a new product base on u-blox-5 and we were collect many good ideas and our experience for this.
I hope we can quickly start design.
Woher kennst Du unsere Pläne? ;>)
Ja, wir werden ein neues Gerät auf Basis des u-blox 5 entwickeln, wir habe einige gute Ideen sowie unsere Erfahrung.
Ich hoffe, dass wir sehr bald mit der Konzeptionierung [?] beginnen können.

One last suggestion for future development: Would it be possible, when the logger is switched off, to have an option to switch off the GPS receiver instead of the BT unit? One of our user would be happy with such a feature.

Sure. I will keep in my mind.
You could check G-Trender user manual. I think that is included in design.
Natürlich, ich werde mir das merken.
Sieh im G-Trender Handbuch nach, ich denke, diese Option ist da schon vorhanden.

We are very confident in that our paper might be valuable for you to learn about your user's wishes. The WBT-201 is an excellent unit, and TimemachineX is improving, too.
We definitively highly appreciate WINTEC's support (thank you Al !) and would be happy to continue this by contributing the present list of issues.

We are keen to hear from you, and to contribute to the further development of the WBT-201 and TimemachineX!

With kind regards,
Chris, on behalf of the WBT users at Pocketnavigation

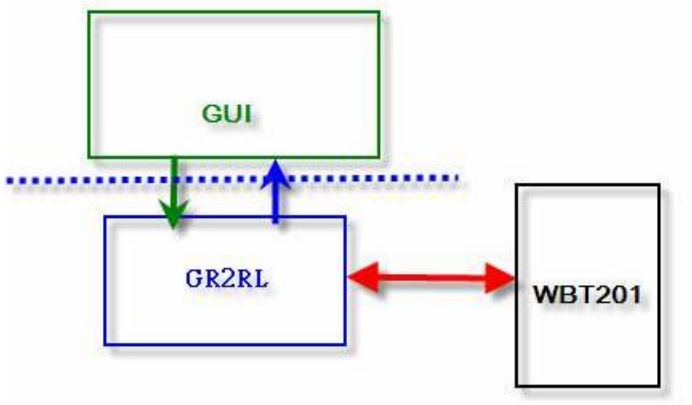
Thanks Chris, Please say hello and thanks with your people for me.
Danke Chris, richte bitte Grüße und ein Dankeschön an alle bei euch aus.

P.S. There is GR2RL(0808_2).rar (G-Rays2 Read Log tool) for you.
If your people want to read log from WBT201 in private software and they don't know how to do.
They can using this attchment for this purpose.

1. GR2RL.exe : access WBT201 tool (for DOS)
2. GUI.exe : GUI.exe for demo how to use.
3. readme.txt

Your program could replace to GUI.exe

P.S. Im Anhang die Datei GR2RL(0808_2).rar (G-Rays2 Read Log tool) für euch.
Falls ihr den logger der WBT201 mit eigener Software auslesen möchtet, und nicht wisst wie, könnt ihr dieses tool verwenden.
1. GR2RL.exe DOS-tool für den Zugriff auf die WBT201
2. GUI.exe als Demo, wie das tool zu nutzen ist [?]
3. readme.txt



Best Regards,

Al - Lai

賴建成

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-----Original Message-----
From: Christoph Wawrosch [mailto:christoph.wawrosch@univie.ac.at]
Sent: Tuesday, February 19, 2008 3:38 AM
To: al@wintec.com.tw; joseph@wintec.com.tw; sales_gps@wintec.com.tw
Subject: suggestions/inquiries about WBT-201

Hello Al, hello Joseph!

I have not had any replies from you, but I think you were quite involved in the Chinese New Year.

Al, in response to your statement ("feedback from the users is always welcome"), I kindly ask you to have a look at the attached text.

We thought to summarize our thoughts as attachement, so you can deliberately fit it as you need.

We would highly appreciate your comments about our questions !!

Kind regards,
Chris