

## How To modify whole channel lists of a modified PRM8060 or PRM8070 transmitter

Please ensure, that you have installed the firmware (V5.0 or higher) from <https://sourceforge.net/projects/prm80/files/prm80%20firmware/>

Connect radio to PC via serial interface or USB 2 serial adapter.

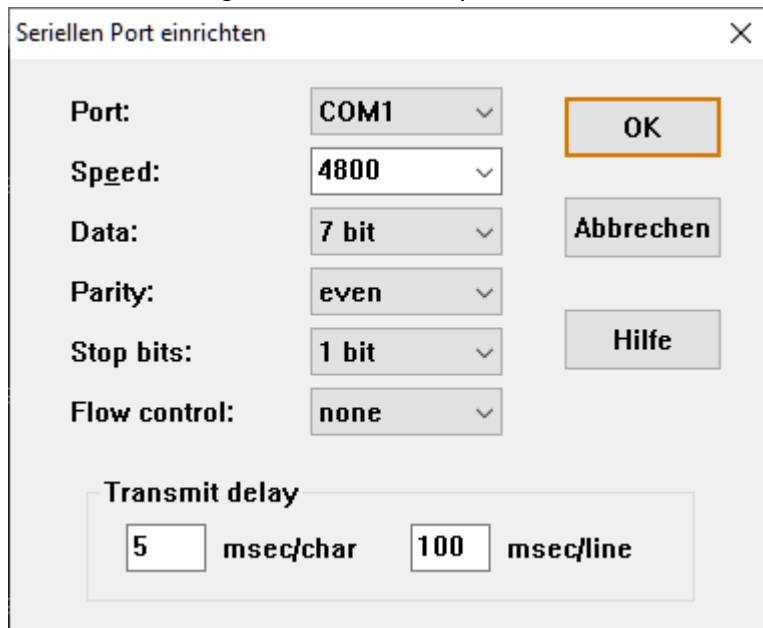
More information in regard to hardware connection see:

<https://github.com/f4fez/prm80/tree/master/doc>

Start terminal software at PC, e.g. "Tera-Term".

### Tera Term Port configuration:

Ensure that settings are done correctly:



The screenshot shows the 'Seriellen Port einrichten' (Serial Port Setup) dialog box. The settings are as follows:

Setting	Value
Port:	COM1
Speed:	4800
Data:	7 bit
Parity:	even
Stop bits:	1 bit
Flow control:	none

Buttons: OK (highlighted), Abbrechen, Hilfe.

Transmit delay: 5 msec/char, 100 msec/line

Port: your serial interface (or USB2Serial) connected to PRM80xx

Speed: 4800 baud

Data: 7 Bit

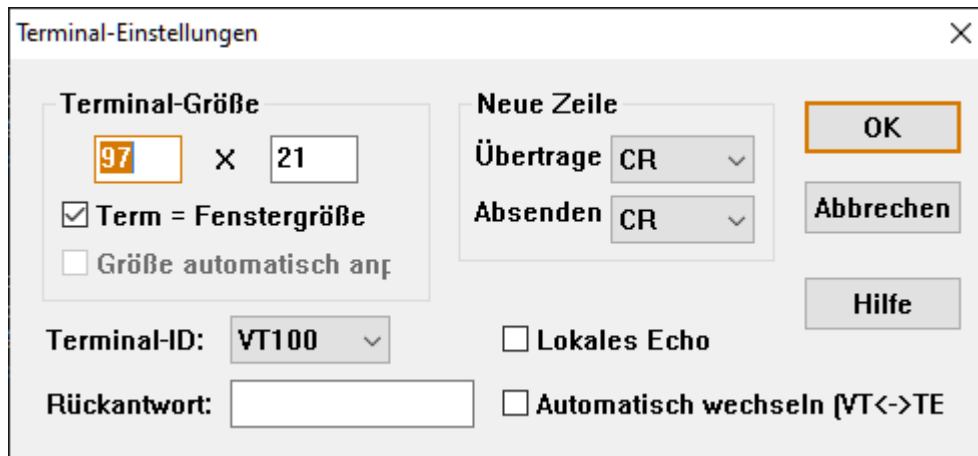
Parity: even

Flow control: none

### Transmit delay: 5ms/char, 100msec/line

to adjust this values is very important, else you will not be able to send a higher amount of data to the PRM80 (e.g. channel list). If you still get in trouble with numbers above increase the numbers and re-test

## Tera Term Terminal Configuration:



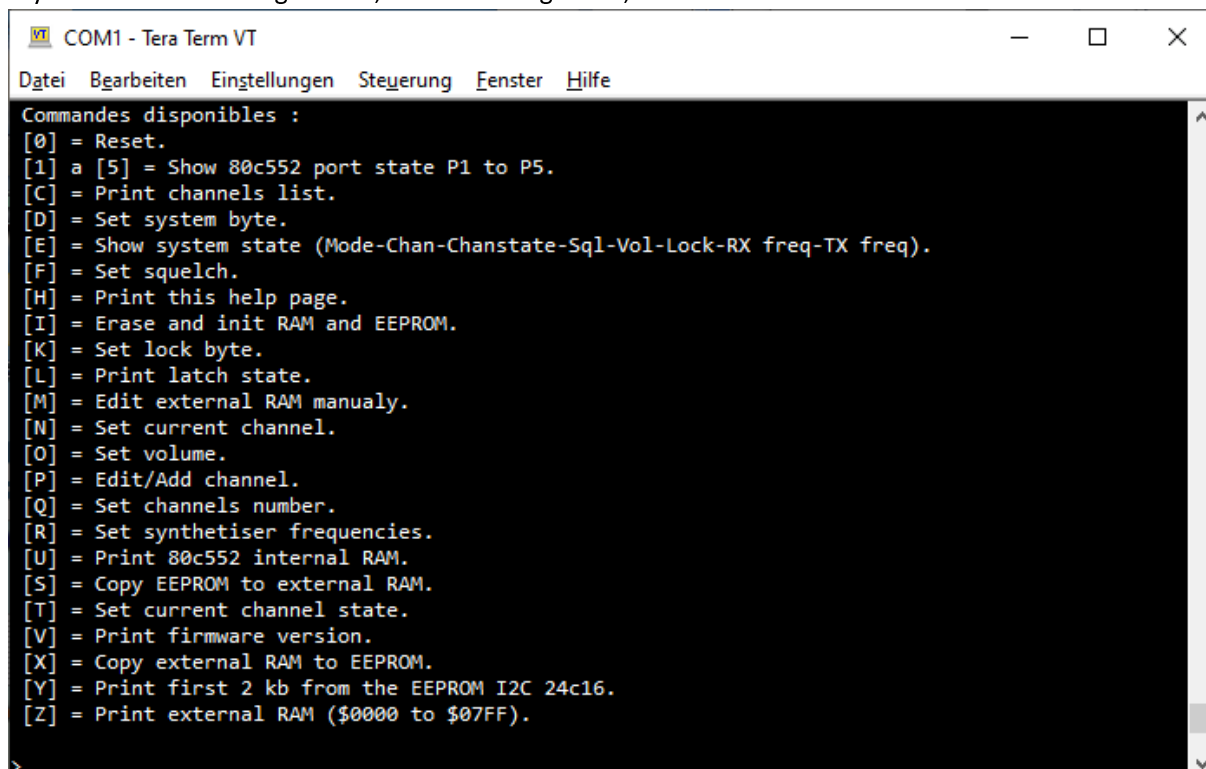
The screenshot shows the 'Terminal-Einstellungen' (Terminal Settings) dialog box. It has several sections: 'Terminal-Größe' (Terminal Size) with input fields for '97' and '21', and checkboxes for 'Term = Fenstergröße' (checked) and 'Größe automatisch anp.' (unchecked); 'Neue Zeile' (New Line) with dropdowns for 'Übertrage' and 'Absenden' both set to 'CR'; 'Terminal-ID' with a dropdown set to 'VT100'; 'Rückantwort' (Response) with an empty text field; and checkboxes for 'Lokales Echo' (unchecked) and 'Automatisch wechseln [VT<->TE]' (unchecked). On the right side, there are buttons for 'OK' (highlighted with an orange border), 'Abbrechen' (Cancel), and 'Hilfe' (Help).

Ensure that "new line" is configured to "Carriage Return" (CR) .

Disable Local Echo

To start the communication to the PRM80xx it may be necessary to Reset the Terminal Control -> Reset Terminal

If you can see following screen, after entering a "H", the communication from PC to PRM80xx is running well:



The screenshot shows the Tera Term terminal window titled 'COM1 - Tera Term VT'. The menu bar includes 'Datei', 'Bearbeiten', 'Einstellungen', 'Steuerung', 'Fenster', and 'Hilfe'. The terminal content displays a list of available commands under the heading 'Commandes disponibles :'. The commands are listed as follows:

```
[0] = Reset.  
[1] a [5] = Show 80c552 port state P1 to P5.  
[C] = Print channels list.  
[D] = Set system byte.  
[E] = Show system state (Mode-Chan-Chanstate-Sql-Vol-Lock-RX freq-TX freq).  
[F] = Set squelch.  
[H] = Print this help page.  
[I] = Erase and init RAM and EEPROM.  
[K] = Set lock byte.  
[L] = Print latch state.  
[M] = Edit external RAM manually.  
[N] = Set current channel.  
[O] = Set volume.  
[P] = Edit/Add channel.  
[Q] = Set channels number.  
[R] = Set synthesiser frequencies.  
[U] = Print 80c552 internal RAM.  
[S] = Copy EEPROM to external RAM.  
[T] = Set current channel state.  
[V] = Print firmware version.  
[X] = Copy external RAM to EEPROM.  
[Y] = Print first 2 kb from the EEPROM I2C 24c16.  
[Z] = Print external RAM ($0000 to $07FF).
```

The cursor is positioned at the bottom left of the terminal window, ready for input.

Read the channel list from PRM80xx:

Press "C"

Copy the received data to a text file, e.g. input.txt:

*Channel Frequency Shift State*

00 894E 0260 01

01 8952 0260 01

02 8973 02F0 01

03 8946 0260 01

04 8952 0260 01

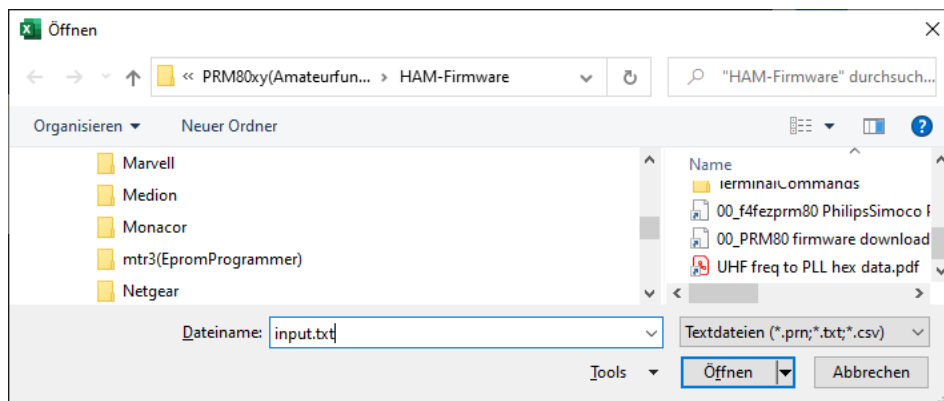
05 866C 0000 00

06 866E 0000 01

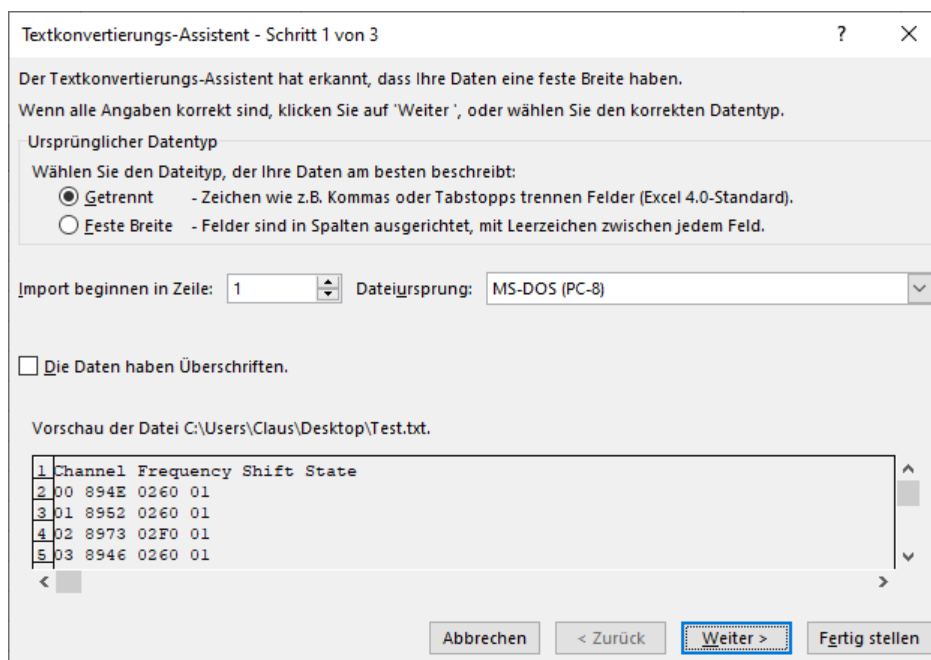
...

Now start Excel and:

File -> open -> search -> Text Files (\*.prn;\*.txt;\*.csv) -> input.txt



-> Select separated



-> next

-> select Space (Blank/Leerzeichen) as separator

Textkonvertierungs-Assistent - Schritt 2 von 3

Dieses Dialogfeld ermöglicht es Ihnen, Trennzeichen festzulegen. Sie können in der Vorschau der markierten Daten sehen, wie Ihr Text erscheinen wird.

Trennzeichen

☐ Tabstopp  
☐ Semikolon  
☐ Komma  
☒ Leerzeichen  
☐ Andere:

☒ Aufeinanderfolgende Trennzeichen als ein Zeichen behandeln

Textqualifizierer:

Datenvorschau

Channel	Frequency	Shift	State
00	894E	0260	01
01	8952	0260	01
02	8973	02F0	01
03	8946	0260	01

Abbrechen < Zurück Weiter > Fertig stellen

-> next

-> mark all columns and select Text

Textkonvertierungs-Assistent - Schritt 3 von 3

Dieses Dialogfeld ermöglicht es Ihnen, jede Spalte zu markieren und den Datentyp festzulegen.

Datenformat der Spalten

☐ Standard  
☒ Text  
☐ Datum:   
☐ Spalte nicht importieren (überspringen)

Die Option 'Standard' behält Datums- und Zahlenwerte bei und wandelt alle anderen Werte in Text um.

Erweitert...

Datenvorschau

Text	Text	Text	Text
Channel	Frequency	Shift	State
00	894E	0260	01
01	8952	0260	01
02	8973	02F0	01
03	8668	0000	01

Abbrechen < Zurück Weiter > Fertig stellen

-> finish

If your Excel Sheet looks like:

	A	B	C	D
1	Channel	Frequency	Shift	State
2	00	894E	0260	01
3	01	8952	0260	01
4	02	8973	02F0	01
5	03	8668	0000	01
6	04	866A	0000	01
7	05	866C	0000	01
8	06	866E	0000	01
9	07	8670	0000	01
10	08	8672	0000	01
11	09	8674	0000	01

The first import step is done correctly

	A	B	C	D	E
1	Channel	Frequency	Shift	State	
2	00	894E	0260	01	
3	01	8952	0260	01	
4	02	8973	02F0	01	
5	03	8668	0000	01	
6	04	866A	0000	01	
7	05	866C	0000	01	
8	06	866E	0000	01	
9	07	8670	0000	01	
10	08	8672	0000	01	
11	09	8674	0000	01	
12	10	8676	0000	01	
13	11	8678	0000	01	
14	12	867A	0000	01	
15	13	867C	0000	01	
16	14	867E	0000	01	
17	15	87D0	0000	01	
18	16	87D2	0000	01	
19	17	87D4	0000	01	
20	18	87D6	0000	01	
21	19	87D8	0000	01	
22	20	87DA	0000	01	
23	21	87DC	0000	01	
24	22	87DE	0000	01	
25	23	87E0	0000	01	
26	24	87E2	0000	01	
27	25	87E4	0000	01	
28	26	87E6	0000	01	
29	27	87E8	0000	01	
30	28	87EA	0000	01	
31	29	87EC	0000	01	
32	30	87EE	0000	01	
33	31	87F0	0000	00	
34	32	87F2	0000	00	
35	33	87F4	0000	00	
36	34	87F6	0000	00	
37	35	87F8	0000	00	
38	36	87FA	0000	00	
39	37	87FC	0000	00	
40	38	87FE	0000	00	
41	39	8800	0000	00	
42	40	8802	0000	00	
43	41	8804	0000	00	
44	42	8806	0000	00	
45	43	8808	0000	00	
46	44	880A	0000	00	
47	45	880C	0000	00	
48	46	880E	0000	00	
49	47	8810	0000	00	
50	48	7DD8	0000	00	
51	49	7E68	0000	00	
52					
53					
54					

<- Now select all data and copy

Open file "ChannelListFromToPRM.xlsx"

-> goto TAB "Input(RAW)"

-> select field A1

-> and paste the data via "paste content -> values only"

Now go to TAB "Freq(Input)"

Here you can find all data received from PRM80.

**Don't change any values inside this TAB !!**

	A	B	C	D	E	F	G
1	Channel	Frequency	Shift	State	State	State	State
				Shift Enabled	Reverse Mode	Positiv Shift	Scanning Locked Out
2	00	439,375000	7,600000	1	0	0	0
3	01	439,425000	7,600000	1	0	0	0
4	02	439,837500	9,400000	1	0	0	0
5	03	430,100000	0,000000	1	0	0	0
6	04	430,125000	0,000000	1	0	0	0
7	05	430,150000	0,000000	1	0	0	0
8	06	430,175000	0,000000	1	0	0	0
9	07	430,200000	0,000000	1	0	0	0
10	08	430,225000	0,000000	1	0	0	0
11	09	430,250000	0,000000	1	0	0	0
12	10	430,275000	0,000000	1	0	0	0
13	11	430,300000	0,000000	1	0	0	0
14	12	430,325000	0,000000	1	0	0	0
15	13	430,350000	0,000000	1	0	0	0
16	14	430,375000	0,000000	1	0	0	0
17	15	434,600000	0,000000	1	0	0	0
18	16	434,625000	0,000000	1	0	0	0
19	17	434,650000	0,000000	1	0	0	0
20	18	434,675000	0,000000	1	0	0	0
21	19	434,700000	0,000000	1	0	0	0
22	20	434,725000	0,000000	1	0	0	0
23	21	434,750000	0,000000	1	0	0	0
24	22	434,775000	0,000000	1	0	0	0

Again: mark all values and copy:

	A	B	C	D	E	F	G
1	Channel	Frequency	Shift	State Shift	State Reverse	State Parity	State Scanning
2	00	439,375000	7,600000	1	0	0	0
3	01	439,425000	7,600000	1	0	0	0
4	02	439,837500	9,400000	1	0	0	0
5	03	430,100000	0,000000	1	0	0	0
6	04	430,125000	0,000000	1	0	0	0
7	05	430,150000	0,000000	1	0	0	0
8	06	430,175000	0,000000	1	0	0	0
9	07	430,200000	0,000000	1	0	0	0
10	08	430,225000	0,000000	1	0	0	0
11	09	430,250000	0,000000	1	0	0	0
12	10	430,275000	0,000000	1	0	0	0
13	11	430,300000	0,000000	1	0	0	0
14	12	430,325000	0,000000	1	0	0	0
15	13	430,350000	0,000000	1	0	0	0
16	14	430,375000	0,000000	1	0	0	0
17	15	434,600000	0,000000	1	0	0	0
18	16	434,625000	0,000000	1	0	0	0
19	17	434,650000	0,000000	1	0	0	0
20	18	434,675000	0,000000	1	0	0	0
21	19	434,700000	0,000000	1	0	0	0
22	20	434,725000	0,000000	1	0	0	0
23	21	434,750000	0,000000	1	0	0	0
24	22	434,775000	0,000000	1	0	0	0
25	23	434,800000	0,000000	1	0	0	0
26	24	434,825000	0,000000	1	0	0	0
27	25	434,850000	0,000000	1	0	0	0
28	26	434,875000	0,000000	1	0	0	0
29	27	434,900000	0,000000	1	0	0	0
30	28	434,925000	0,000000	1	0	0	0
31	29	434,950000	0,000000	1	0	0	0
32	30	434,975000	0,000000	1	0	0	0
33	31	435,000000	0,000000	0	0	0	0
34	32	435,025000	0,000000	0	0	0	0
35	33	435,050000	0,000000	0	0	0	0
36	34	435,075000	0,000000	0	0	0	0
37	35	435,100000	0,000000	0	0	0	0
38	36	435,125000	0,000000	0	0	0	0
39	37	435,150000	0,000000	0	0	0	0
40	38	435,175000	0,000000	0	0	0	0
41	39	435,200000	0,000000	0	0	0	0
42	40	435,225000	0,000000	0	0	0	0
43	41	435,250000	0,000000	0	0	0	0
44	42	435,275000	0,000000	0	0	0	0
45	43	435,300000	0,000000	0	0	0	0
46	44	435,325000	0,000000	0	0	0	0
47	45	435,350000	0,000000	0	0	0	0
48	46	435,375000	0,000000	0	0	0	0
49	47	435,400000	0,000000	0	0	0	0
50	48	402,700000	0,000000	0	0	0	0
51	49	404,500000	0,000000	0	0	0	0

-> goto Sheet Freq(Edit) -> Mark field A1 -> and again paste contents (values only)

Now you can modify frequencies, State bits... as needed.

If you are finished, goto TAB "Output" and save this sheet (only) as text document:

File -> Save as -> select folder -> formatted text (blank separated) -> Output.txt

If you open this file with a text editor,

the result should look like the screen shot on the right ->

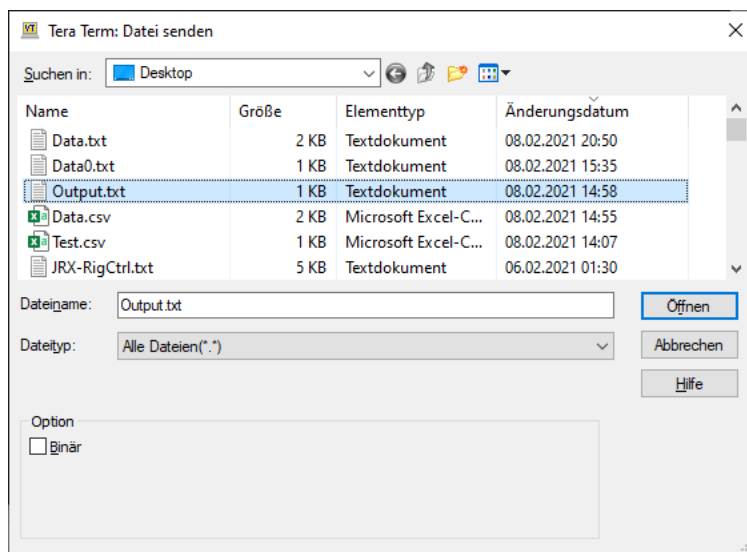
If not, you can not send the data to the PRM80xx, instead you have to look what went wrong

```

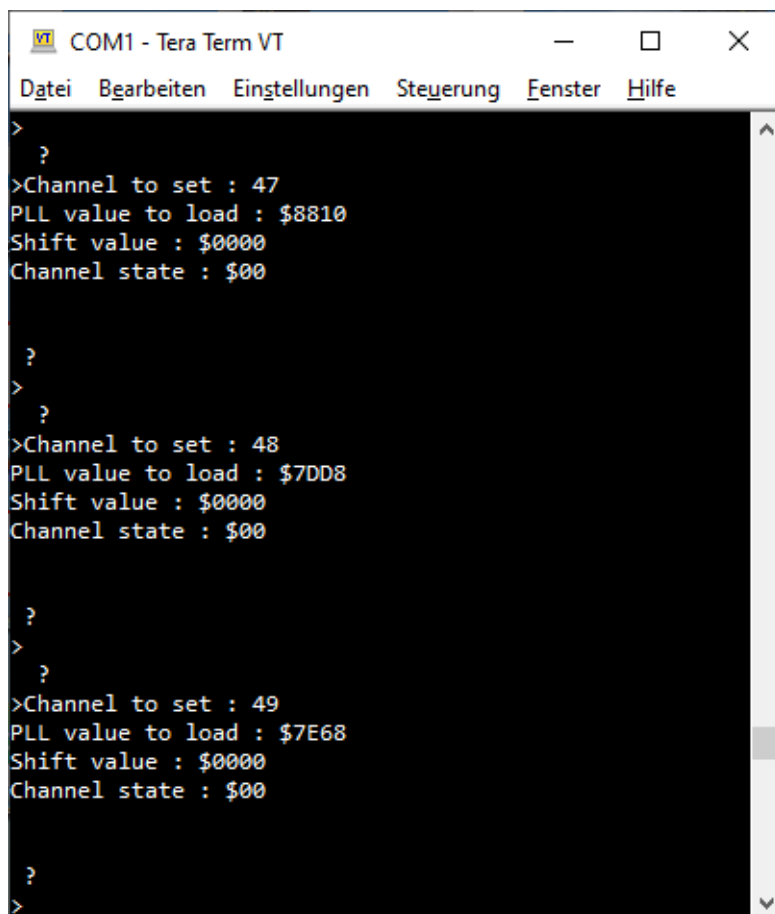
Output.txt - Editor
Datei Bearbeiten Format Ansicht Hilfe
P00894E026001
P018952026001
P02897302F001
P038668000001
P04866A000001
P05866C000001
P06866E000001
P078670000001
P088672000001
P098674000001
P108676000001
P118678000001
P12867A000001
P13867C000001
Z 100% Windows (CRLF) UTF-8

```

If the result was fine you can send the new config Data to the PRM80xx via Tera Term (or similar software):



File -> Send data -> Output.txt -> open



Now you should see that all channel are send to the PRM. Double check that no data are missing !

If you want have the data stored to the EEPROM, Press the “X” button after all data have been sent.  
Now you are done with

- Download channel list from PRM80xx
- Modify channel list
- Upload channel list to PRM80xx

This workaround is available as long as no other configuration software is written/available for this radio.