ZachTek WSPR-TX Serial API as used from software revision 2:17					
PC User config Set or Get commands			**Type of data and number of bytes**		**User config is sent by the PC configuration software**
Description	**Send**	**Set/Get**	**Data [8..]**	**Data**	**Comment**
Command CurrentMode	**[CCM]**	S/G	Text 1 S=Sig, W=WSPR, N=None (Idle)		
Command CurrentReference	**[CCR]**	G	Text 1 E=External, I=Internal		
Command User Config Store in EEPROM	**[CSE]**	S			
Option TX Pause	**[OTP]**	S/G	Text 5 0-99999 Minutes		
Option StartMode	**[OSM]**	S/G	Text 1 S=Sig, W=WSPR, N=None		
Option Band TX Enable	**[OBD]**	S/G	Text 2 Text 1 - Band number * , E/D E=Enable, D=Disable		
Option Location	**[OLC]**	S/G	Text 1. G=GPS calculated, M=Manual (DL4 or DL6 data)		
Option Locator Precision	**[OLP]**	S/G	Text 1. 4 or 6 = Number of character used in the Maidenhead report.		
Option Power	**[OPW]**	S/G	Text 1. N=Normal using the DPD Power Data. A=Altitude encoded.		
Option Time Slot	**[OTS]**	S/G	Text 2 Time Slot Code 0 to 16. 0-4=10 min. schedule , 5-14=20min schedule, 15=Band coordinated Schedule, 16=No schedule, 17=Tracker (only TX when on the move or at top of hour)		
Option PreFix/Suffix	**[OPS]**	S/G	Test1 P=Use Prefix. S=Use Suffix N=None		
Optionion set GPS Constellations	**[OSC]**	S/G	Text1 G=GPS Only, B= BeiDou Only, A= GPS And BeiDou		
Data CallSign	**[DCS]**	S/G	Text 6 Callsign		
Data Suffix	**[DSF]**	S/G	Text 3 Suffix code 000-125. 000-009= 0 to 9. 010-035=A to Z		*Call Sign suffix code. A / will be automatically appended after the Call Sign followed by the suffix*
Data Prefix	**[DPF]**	S/G	Text 3 Prefix padded with leading spaces if less than three characters. A-Z and 0-9 allowed		*Call Sign prefix chars. A / will be automatically added between the Prefix and the Call Sign*
Data Locator 4	**[DL4]**	S/G	Text 4 Maidenhead grid with four characters		
Data Locator 6	**[DL6]**	S/G	Text 6 Maidenhead grid with six characters		
Data PowerData	**[DPD]**	S/G	Text 2 Power in dBm. Padded with a leading zero to two characters 0-60dBm		
Data Name	**[DNM]**	S/G	Text 40		
Data Generator Frequency	**[DGF]**	S/G	Text 12 Frequency in Centi Hertz. Padded with leading zeros to 12 characters		
Debug Set LP Filter	**[CSL]**	S	Text 1. Text1=A,B,C or D for LP bank.		*LP filters are automatically set by the WSPR Beacon and Signal Gen. routines but can be temporarily overridden by this command for testing purposes*
Data External Reference Frequency	**[DER]**	S/G	Text 9 Frequency in Hertz. Padded with leading zeros to 9 characters		*Normally 010000000*
PC Factory config Set or Get commands			**Type of data and number of bytes**		**Factory data is set by the PC Factory configuration software.**
Description	**Send**	**Set/Get**	**Data [8..]**	**Data**	**Comment**
Factory Product model Number	**[FPN]**	G	Text 5 0-65534		*1011=WSPR-TX_LP1, 1012=WSPR Desktop, 1017=WSPR Mini*
Factory Hardware Version	**[FHV]**	S/G	Text 3 0-255		
Factory Hardware Revision	**[FHR]**	S/G	Text 3 0-255		
Factory Software Version	**[FSV]**	G	Text 3 0-255		
Factory Software Revision	**[FSR]**	G	Text 3 0-255		
Factory Reference Oscillator Frequency	**[FRF]**	S/G	Text 9 Frequency in Hertz. Padded with leading zeros to 9 characters		*Normally 026000000*
Factory Low Pass Filter installed	**[FLP]**	S/G	Text 1 A,B,C or D for indicating or setting bank of low pass filter A to D	Text 2 00 to 15 for band *	*98=just a link between input and output - the firmware will use this if no other filter is a good match, 99=Nothing fitted (open circuit) the firmware will never use this as a filter*
Cmd FactoryConfig Store in EEPROM	**[FSE]**	S			
Arduino replies for Get commands			**Type of data and number of bytes**		**Replies from the device in respons to a Get query**
Description	**Return**		**Data**	**Data**	
Cmd CurrentMode	**{CCM}**		Text 1 S=Sig, W=WSPR, N=None		
Option TX Pause	**{OTP}**		Text 5 0-99999 Minutes		
Option StartMode	**{OSM}**		Text 1 S=Sig, W=WSPR, N=None		
Option Band TX Enable	**{OBD}**		Text 2 Text 1. Band number *, E=Enable, D=Disable		
Option Location	**{OLC}**		Text 1. G=GPS calculated, M=Manual (DL4 data)		
Optionion set GPS Constellations	**{OSC}**		Text 1. G=GPS Only B=BeiDou Only, A= GPS And BeiDou		
Dat CallSign	**{DCS}**		Text 6		
Dat Locator 4	**{DL4}**		Text 4		
Dat Locator 6	**{DL6}**		Text 6		
Dat PowerData	**{DPD}**		Text 2 (00 to 60) dBm		

Dat Name	{DNM}		Text 40		
Dat Generator Freq	{DGF}		Text 12 Frequency in Centi Hertz. Padded with leading zeros to 12 characters		
Arduino Status update messages			**Type of data and number of bytes**		**These messages are sent whenever the device thinks it's appropriate**
Description	**Return**		**Data**	**Data**	
Current Mode	{CCM}		Text 1 S=Sig, W=WSPR, N=None		
GPS locator 4 char Maidenhead	{GL4}		Text 4		
GPS Locator 6 char Maidenhead	{GL6}		Test 6		
GPS Time	{GTM}		Text 8 HH:MM:SS		
GPS Lock	{GLC}		Text 1 T=True F=False		
GPS Satellite data	{GSI}		Text2 Text3 Text2 Text2 - ID Az El SNR		
Transmitter Frequency	{TFQ}		Text 5-12 Frequency in centiHz, no leading zeros		
Transmitter On	{TON}		Text 1 T=True F=False		
Microcontroller Paus	{MPS}		Text 7 0-4,000,000Seconds		
Microcontroller Information	{MIN}		Text		
Low Pass filter set	{LPI}		Text 1 A-D		
MicroController VCC Voltage	{MVC}		Text 4 0-9999mV (Normally 3300)		
Transmitter Current Band	{TBN}		Text 2=Band number *		
Transmitter WSPR Symbol	{TWS}		Text 2 Text3 Band number *, WSPR symbol count 0-161		
Transmitter WSPR Band Cycle Complete	{TCC}				
The configuration has an active configuration in RAM and a saved version in EEPROM. The command [CSE] S will store the RAM version down to EEPROM.					
At boot the data in EEPROM is transferred to RAM. The data is divided in two sections. Factory data and User data					
The factory data can not be changed by configuration software and holds information about the hardware, e.g what low pass filters are fitted in the four filter banks, what the measured value of the TCXO reference was at last calibration etc.					
			* Band number definitions		
			00=2190m		
			01=630m		
			02=160m		
			03=80m		
			04=40m		
			05=30m		
			06=20m		
			07=17m		
			8=15m		
			9=12m		
			10=10m		
			11=6m		
			12=4m		
			13=2m		
			14=70cm		
			15=23cm		