

Command	Description	Values	Notes
CP g,h	<u>C</u> hange <u>P</u> oint (track switch or turnout) direction	g: Point port address, formatted as D.x where D=ND Unit number and x=point port number (example: 3.2 is ND Unit 3, point port 2. h: 0=set to straight route, 1=set to curved route)	It is recommended to reset all points back to their original positions at the end of the TCL file.
DA	<u>D</u> isplay <u>A</u> utomatic Operation number	(no values)	Displays number set by SA command
DF	<u>D</u> isplay <u>F</u> requency	(no values)	Displays number set by SF command
DR	<u>D</u> isplay <u>R</u> epetition number	(no values)	Displays repetition number (from SR)
DT	<u>D</u> isplay <u>T</u> ime passed	(no values)	Displays time remaining (from ST command)
PA c,d	<u>P</u> arameter: <u>A</u> ssign Set to a train	c: Parameter Set number. d: Train number	Used to tailor speed, acceleration and other settings to a particular brand/type of train
PC c,e	<u>P</u> arameter: <u>C</u> opy a standard Set to a customizable Parameter Set	c: standard Parameter Set number (0=default; also 11 and up). e: customizable Parameter Set number (1-10)	Often used before altering just 1 or 2 parameters using the PS command
PS c,p,n	<u>P</u> arameter: <u>S</u> et individual Parameter	See "Table of Individual Operating Parameters" below	Changes an individual parameter in a Set
RN	<u>R</u> un (start running)	(no values)	Use at the end of a segment of TCL code that specifies how a train should run
SA n	<u>S</u> et <u>A</u> utomatic Operation number (layout specific)	n: desired Automatic Operation sequence number for the Layout. 0=Forwarding Mode, used to hand-program a specific route sequence.	In the TNOS Manual (and Updates) there are specific Automatic Operation sequences for each Layout Plan
SB n	<u>S</u> et <u>B</u> rightness of Control Unit display	n: 1 to 20	Command added in TNOS Update 2 (2019-12)
SE n	<u>S</u> et brightness of signal indicators	n: 1 to 20	Command added in TNOS Update 2 (2019-12)
SF f	<u>S</u> et <u>F</u> requency of pulses	f: 0=25Hz, 1=50Hz, 2=100Hz, 3=200Hz, 4=800Hz, 5=2KHz, 6=20KHz	Option 3 (200 Hz) is the default
SM a,b	<u>S</u> et <u>M</u> ovement of train	a: sensor location D.x where D=ND Unit number and x=sensor port (example: 2.4 is ND unit 2, sensor port 4. b: (optional) action to use when train reaches this sensor (1=Stop for Stop Time, 2=Start Forward after Stop Time, 3=Start Reverse after Stop Time, 4=Return Forward after Stop Time, 5=Return Reverse after Stop Time (Constant Lighting stays on for options 2-5), 6=End after designated time with Constant Lighting off.	Use the optional second command value to cause a train to start or return (??) in the forward or reverse direction, stop, or end its operation.
SR n	<u>S</u> et <u>R</u> epetitions of Automatic Operation	n: number of repetitions	Sets the desired number of repetitions
ST m,s	<u>S</u> et <u>T</u> ime of Automatic Operation	m: number of minutes. s: number of seconds	Sets the desired time length for repeating the automatic operation
SW s	<u>S</u> et Control Unit display time	s: should be set to 1	Seems to be required at top of TCL program
WK	<u>W</u> ait <u>K</u> eypad	(no values)	Pauses the program until the user presses Start/Resume button. For example, to allow time for user to first throw points manually.
WM m,s	<u>W</u> ait <u>M</u> in./Sec. to continue program	m: number of minutes. s: number of seconds	Used to build wait (delay) times into program

How to Run a TCL file on the TNOS Control Unit

1. Be sure you have made backups of all files on the SD Memory Card.
2. Be sure your Control Unit is updated to the latest version.
3. Copy the created TCL file to the corresponding layout folder on the SD Memory Card.
 - * For example, copy the file c003001.txt" for Layout Plan 3 into the "L003" folder on the memory card.
4. Insert the SD Memory Card into the Control Unit, press the Select Layout Plan button, select the Layout number (example: 3) and press Confirm.
 - Then press the Display Speed button, turn the dial to select the TCL file number (example: 001) and press Confirm.
 - * During this operation, the Control Unit will flash.
5. Press the Confirm/Enter button to start the selected TCL operation.

Table of Individual Operating Parameters

No.	Name	Range	Default *1	Notes
1	CL Voltage	0-100	0	Sets a minimum pulse width, for Constant Lighting to work when stopped.
2	Start Voltage	0-100	10	Sets initial startup voltage. The higher the value, the higher the voltage.
3	Yellow Speed	0-100	15	Sets top speed when running under a Yellow signal. Higher value = faster.
4	Green Speed	0-100	25	Sets top speed when running under a Green signal. Higher value = faster.
5	Accel. Rate	0-255	30	Sets acceleration rate. The higher the value, the quicker the acceleration.
6	Decel. Rate	0-255	40	Sets deceleration rate. The higher the value, the quicker the deceleration.
7	Red Decel.	0-255	160	Sets Red signal deceleration rate. Higher value = quicker stopping.
8	Start Delay	0-255	10	Sets Start Delay after signal changes from Red. Higher value = longer delay.
9	Stop Time	0-255	10	Sets Stop Time value. The higher the value, the longer train stays stopped.

*"10" = about 1 second, "100" = about 10 seconds, "255" = about 25 seconds. *2

Notes for table

- *1 The initial setting values will be the initial values in Parameter Sets 1 to 10 [which match default Set 0].
- *2 The setting time will be +3 seconds when wrapping [to a next repetition of the operating sequence]

Disclaimer:

I prepared these notes and comments as a TNOS set purchaser who does not read nor understand the Japanese language. A computer translation app was used to do basic translation, followed by further analysis and hands-on experimentation. I offer this information as a timesaver for others, since I already had to do the work for myself. I make no promises or claims as to the factual accuracy and completeness of these notes and comments, and anyone who uses them accepts and bears full responsibility and liability for any consequences or damage. These notes and comments were not prepared by Tomytec or Tomix. They are not a product of Tomytec or Tomix, and they are not to be construed to be a product of Tomytec or Tomix.

Additional Notes from Yavianice:

It is VERY IMPORTANT you update your TNOS base station BEFORE attempting to rummage around with the TCL files.
It is also very wise to make a backup in case things go awry!