PERKINELMER

Release Notes for

TurboMatrix Remote Control Software

Version 2.7.0

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Review this document before beginning the installation process.

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This document provides the following information:

- Items Included
- New Features in TurboMatrix TD v2.7.0
- PC Configuration
- Interface Firmware Requirements
- About Installation
- Running the TurboMatrix TD with TotalChrom v6.3
- Issues Requiring Clarification
- Known Bugs in v2.7.0

ITEMS INCLUDED

The Software kit includes the TurboMatrix Software CD and Software Utilities CD. During installation, this document (TurboMatrix_Remote_Control_2_7_0.pdf) is copied into the directory where the software is installed. The default directory is C:\ Program Files\ PerkinElmer\TurboMatrix

The product also includes the following:

- TurboMatrix TD Control Software User's Manual
- Cable

Technical Assistance:

Phone: 800/ 762-4000, Selection #3, ask for GC Tech Support

NEW FEATURES IN TURBOMATRIX TD v2.7.0

The key features of the software are:

- System cleanup functions to remove air, solvent and contaminants from the instrument for Mass Spectrometer users.
- Alternate tube oven temperatures (heated purge, tube conditioning) are now applied during standby state, allowing the instrument to be at temperature and ready when the run is started.
- New READY/NOT READY indication on status bar during standby state. This indicates the status of the temperature zones, pressure zone and flow controllers.
- Enhanced fail-out functionality.
- Extended conditioning time in Desorb+Conditioning operating mode.
- Transition from tube to trap desorption improved and shortened.

PC CONFIGURATION

The TurboMatrix Control Software is tested using the following minimum PC system specifications. Before installing the software, verify that the PC meets the following minimum requirements:

- Intel Pentium® 733MHz or better based personal computer
- 128 megabytes (MB) of RAM
- 25 Megabytes of free hard disk space: 5 MB for the control software and 20 MB for logged data
- VGA color monitor and display adapter, 800x600 or better. The display adapter must be supported by Windows XP

If TotalChrom is also installed on the same computer then the computer must meet the minimum requirements specified for the TotalChrom version.

Operating System: Microsoft Windows XP (Sp3), (US/UK - English versions).

INTERFACE FIRMWARE REQUIREMENTS

To use the Clarus 400/500/600 GC or AutoSystem XL GC instrument control features, verify that the installed firmware satisfies the following requirements:

Required Instrument Firmware Versions for LINK Control (see About screen on Clarus 500/600)

Module	Minimum Required Firmware Version
Clarus 400 GC	4.12
Clarus 500 GC	2.02 UI board/4.110 main board
Clarus 600 GC	3.0.33 UI board/5.0.044 main board
AutoSystem XL GC	3.66
TurboMatrix TD	2.00.72

Required Interface Firmware Versions

Interface	Minimum Required Firmware Version
dotLINK	4.4
softLINK	3.3
LINK	2.0

ABOUT INSTALLATION

Review all of the installation information at least once before beginning the installation process.

- To learn more about TurboMatrix Control Software, refer to the online Help files or the TurboMatrix TD Control Software User's Manual.
- For information about hardware installation, refer to the TurboMatrix User's Manual.

Pre-installation Notes

- Ensure the computer has Windows XP with Service Pack 3 installed as the operating system. If not, contact your local service representative for details on upgrading.
- Before attempting to install new software, back up all important data files, either over a network, or use the CD-R drive in the computer.
- Verify that there is at least 25 MB free space on the c: drive. If not, you must free some space by removing or copying files to a different location.

Close running applications

- Close all applications (MS Office, Toolbar, Word, Excel, Email, etc.) before proceeding.

Install TurboMatrix RCS v2.7.0

The installation of TurboMatrix Remote Control Software is a simple procedure consisting of several steps. Before installing TurboMatrix, Login as an Administrator or at the Administrator Level. To get started, place the CD-ROM in the CD drive and follow the Setup instructions. It is recommended to first uninstall previous version of the RCS (if any) before installing this new version.

Running the TurboMatrix with TotalChrom v6.3

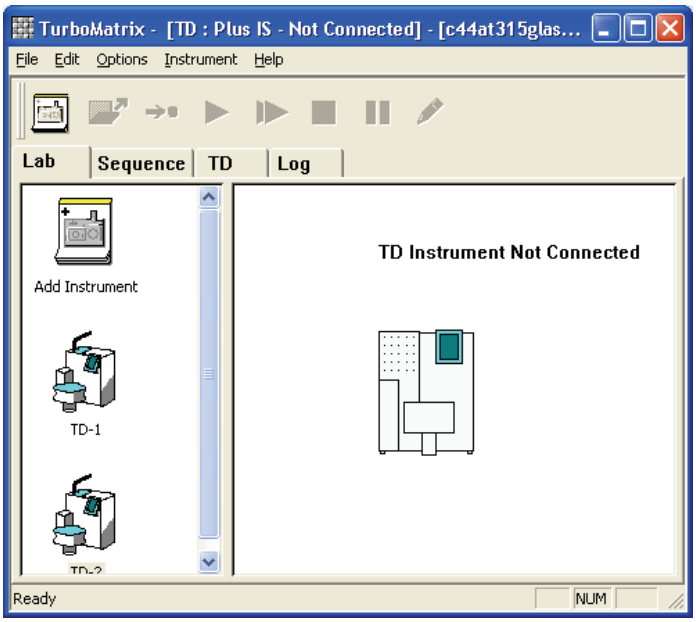
This is an overview describing how to set up the TurboMatrix running the Remote Control Software (RCS) with TotalChrom v6.3. This configuration enables the following:

- Generate TurboMatrix methods from within the TotalChrom Method Editor
- Automatic generation of TurboMatrix sequence
- Simultaneous setup and run of both TotalChrom and TurboMatrix sequences
- Automatic insertion of TurboMatrix Log File information into TotalChrom RAW and RST files
- Clear Setup stops both instruments and clears both sequences
- Real-time status of the TurboMatrix

Installation and Setup

1. First install and configure the TurboMatrix instrument(s) and the Remote Control Software (RCS).

2. Start the RCS and Connect the instruments to be used.

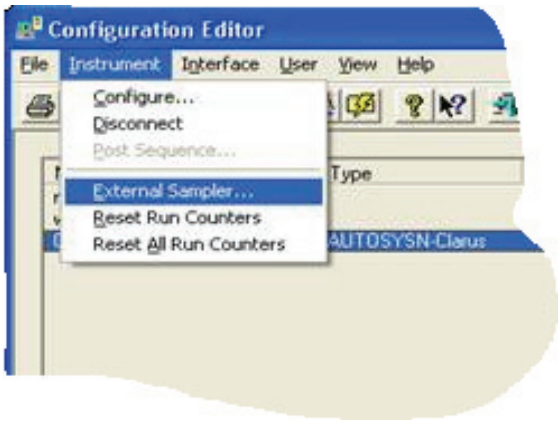


Note: Do not change the names of the TurboMatrix instruments. Changing their names will require reconfiguring TotalChrom.

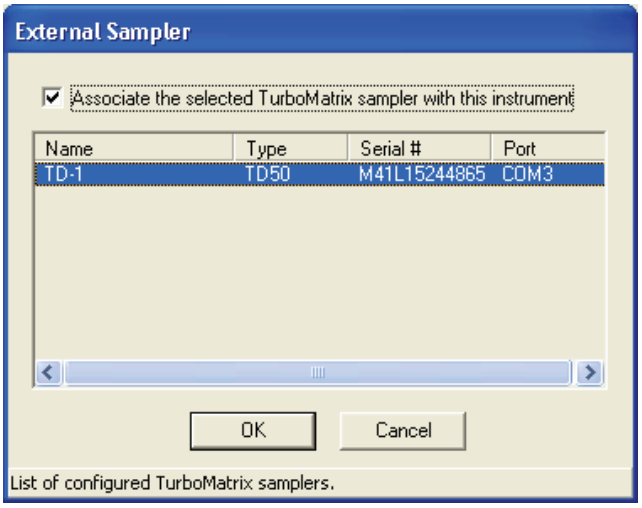
3. Install and start TotalChrom.

4. Select Configuration from the Build menu.

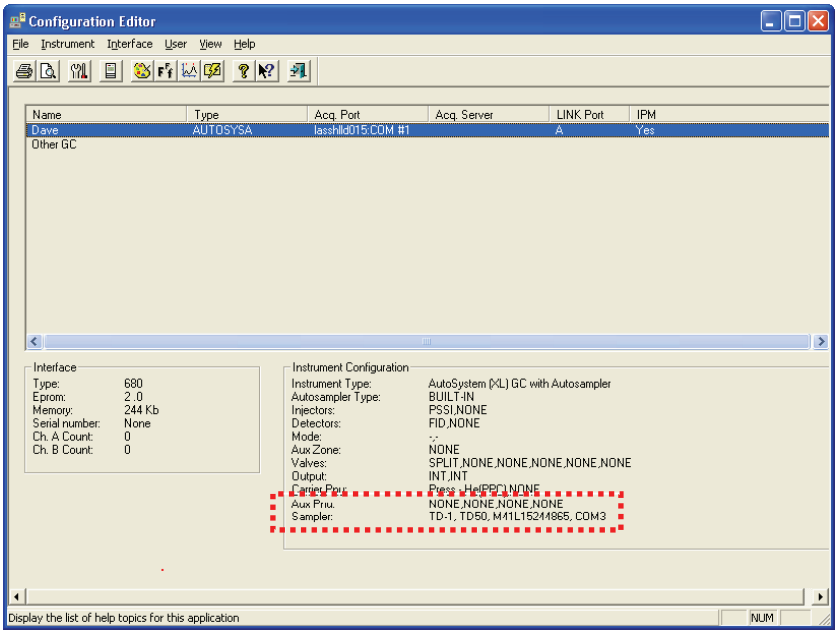
5. After configuring the GC, select External Sampler from the Instrument menu.



6. Select the TurboMatrix you want to link to the instrument.

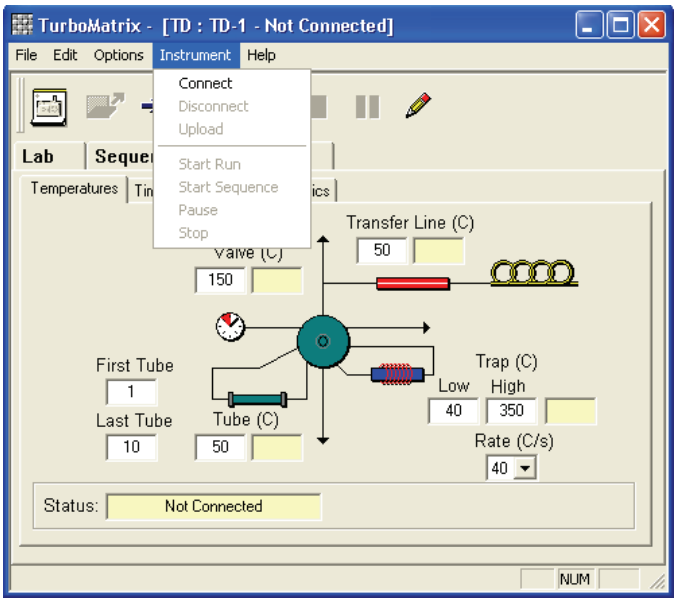


7. Click OK. Open the TotalChrom Configuration Editor by selecting Configure from the Build menu. The Configuration Editor shows that your configuration now includes the TurboMatrix.



Generate a Method

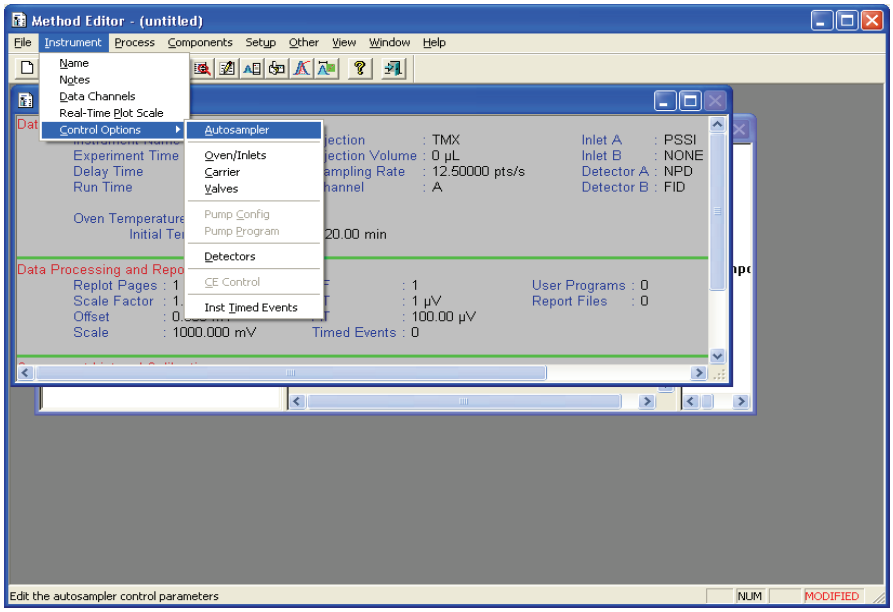
1. To connect the TurboMatrix, start the RCS software, select the instrument from the Lab tab, select the TD tab then select Connect from the Instrument menu.



Once you connect the instrument, you can minimize the RCS software and continue to set up through TotalChrom.

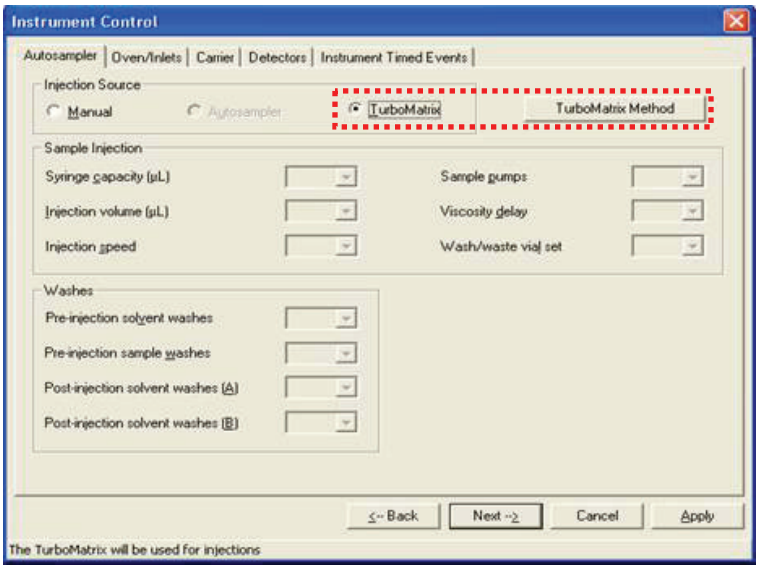
2. From the TotalChrom Navigator, open Method Editor. If you are creating a new method, select the corresponding GC as shown in the Instrument Selection dialog. Then complete the Method Editor dialogs.

3. From the Instrument menu select Autosampler from Current Options.

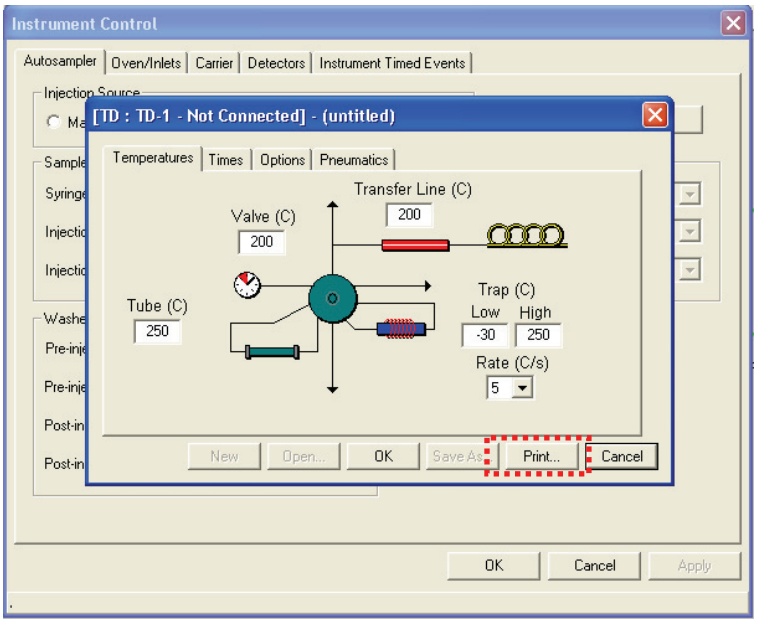


The Instrument Control dialog opens.

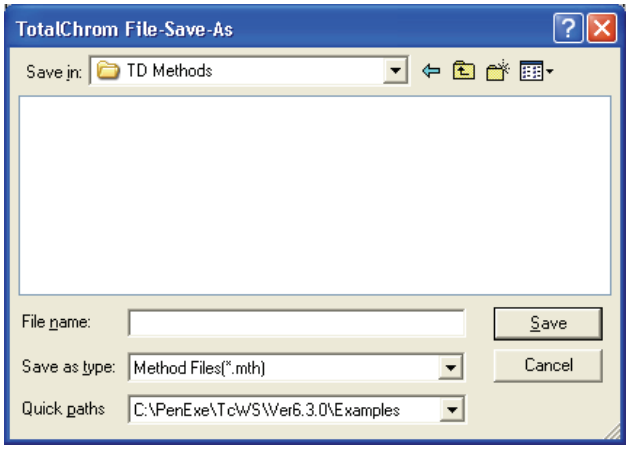
4. Select TurboMatrix as the Injection Source. Then click the TurboMatrix Method button.



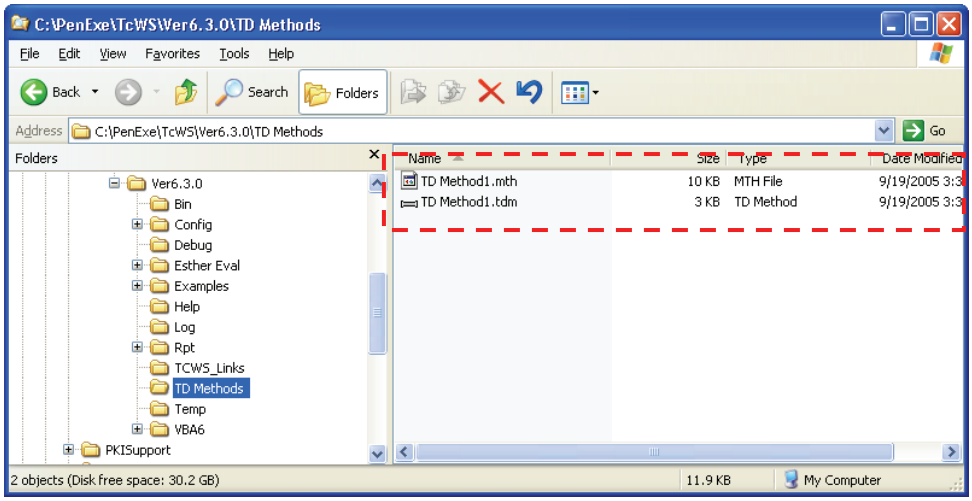
5. Generate or Edit a TurboMatrix Method. When done you can print the TurboMatrix method from this screen.



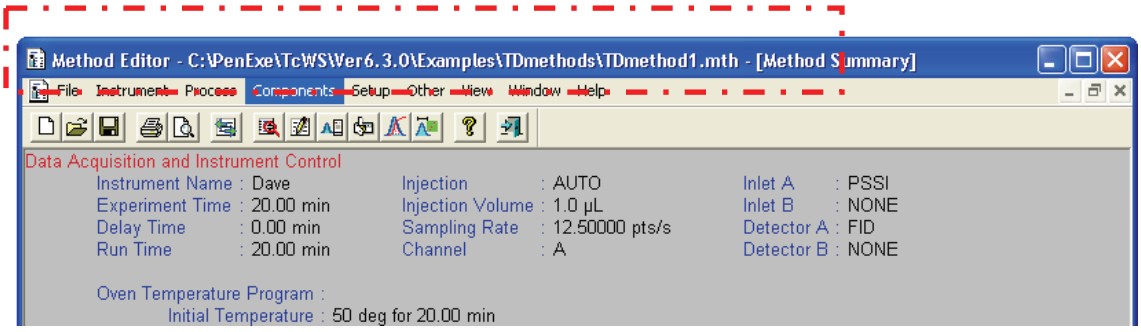
6. Click OK to close the TurboMatrix Method Editor and finish editing the TotalChrom Method for data processing and GC control. When done, Save the Method.



7. When you save the method, note that the TotalChrom Method and TurboMatrix Method will be saved with same names as shown below.



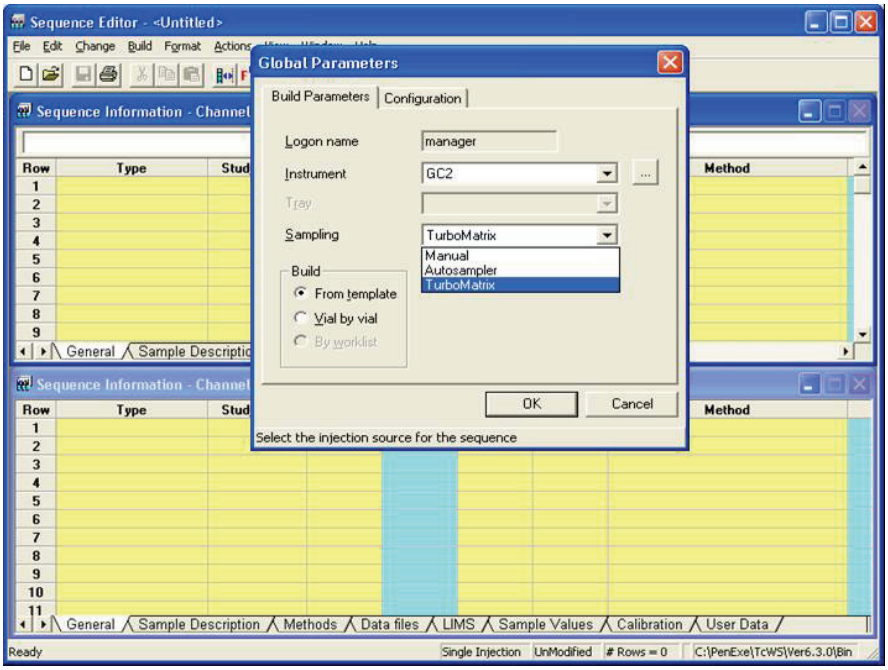
Also note that the new Method name now appears in the Method Editor Window title bar.



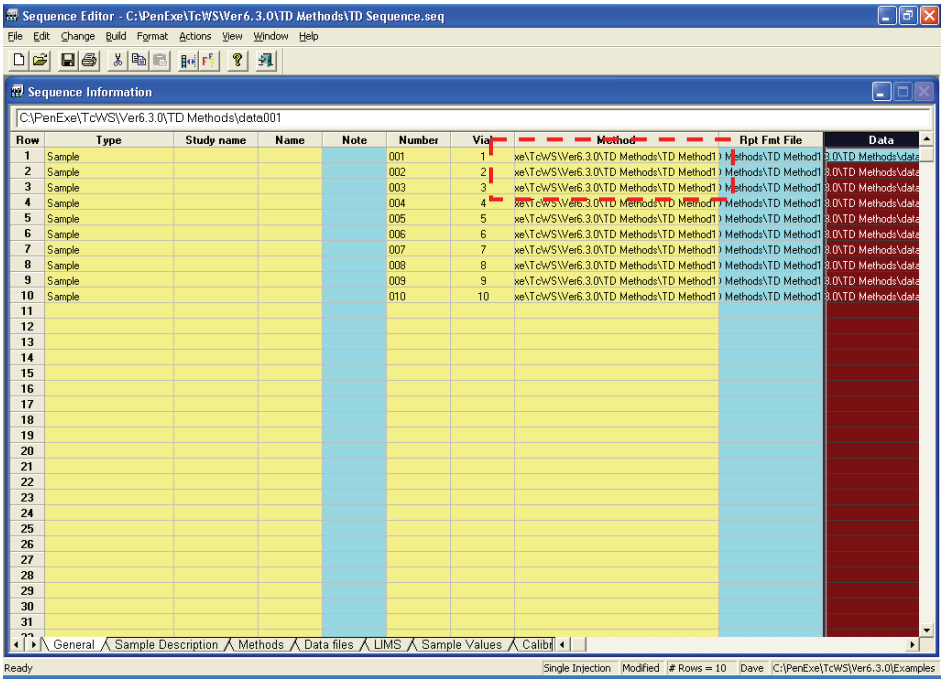
Generating a Sequence

1. Start the Sequence Editor.
2. Load a Sequence or create a new Sequence.
3. Select Global Parameters from the Change menu.

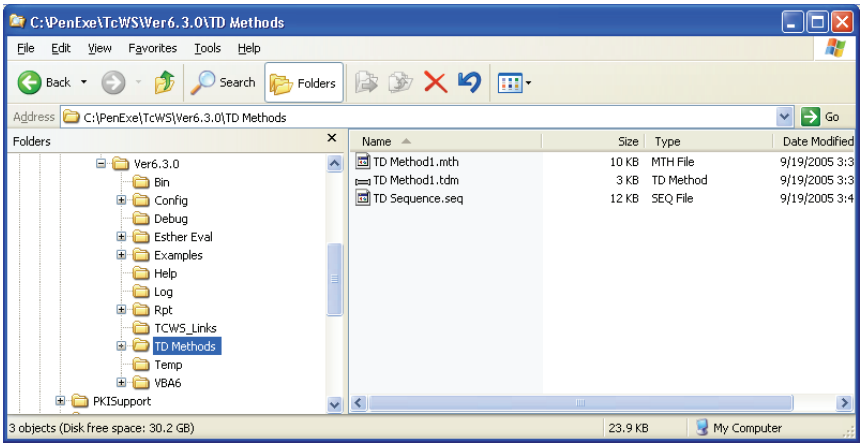
4. Select TurboMatrix as the Sampling type.



5. Generate a Sequence in TotalChrom using the TurboMatrix method.



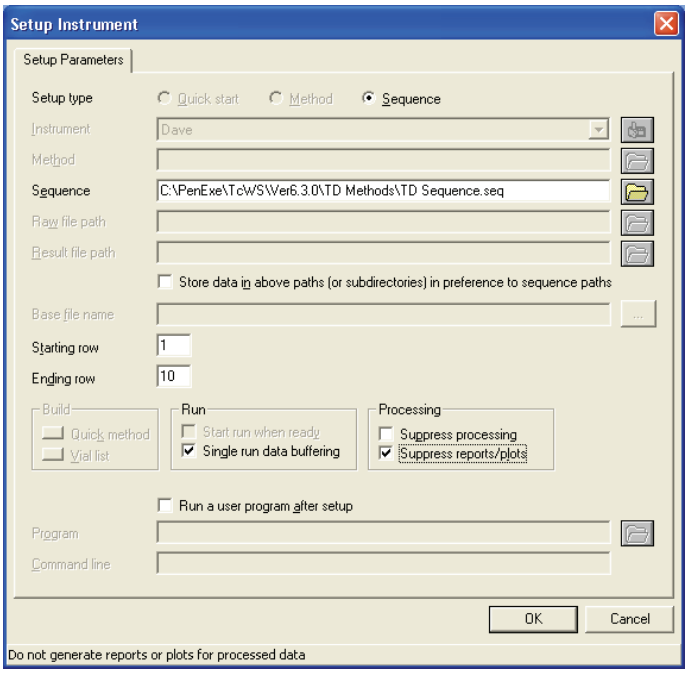
6. Save the Sequence and note that only the TotalChrom Sequence is saved at this time.



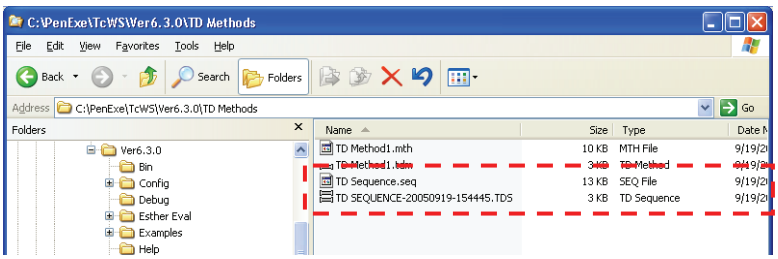
Set-up the Sequence

After generating a Sequence, your next step is to set up the TD sequence.

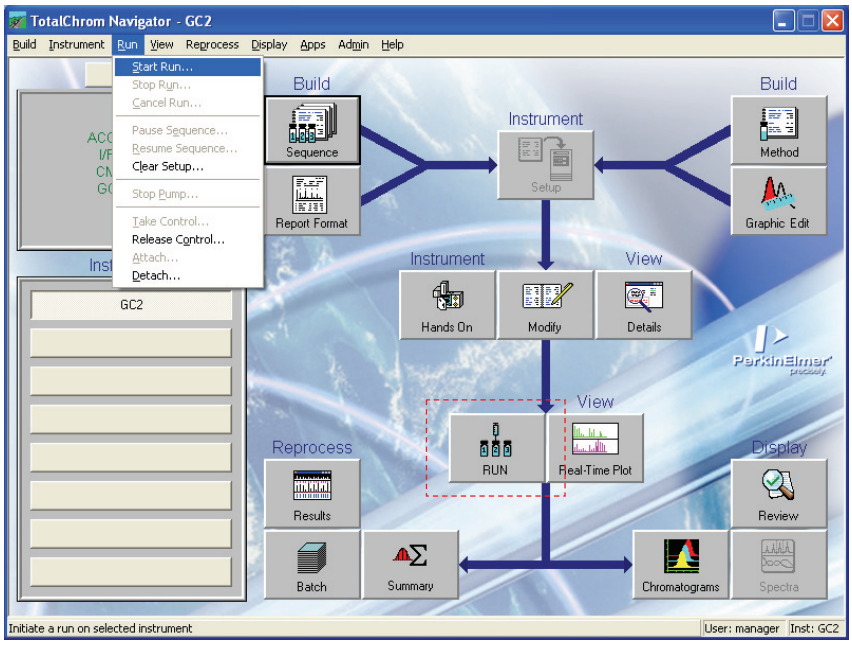
1. The TurboMatrix Sequence is generated during setup.



Check that the TD Sequence in TotalChrom (above) corresponds to the TurboMatrix sequence (below).

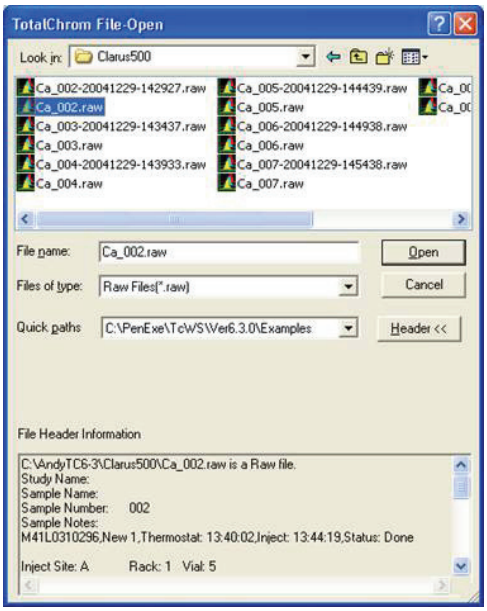


2. Start the TurboMatrix Run from TotalChrom by clicking the Run button.



Transfer of Sample Details for Reprocessing

The collected information goes into the .raw and .rst files for reprocessing.



Stopping a Run

➢ Click the Run button in the TotalChrom navigator and select Stop Run.

Note: For a coordinated shutdown, stop a run only from TotalChrom. Unexpected errors can occur if you stop a run from the TurboMatrix touch screen or from the Remote Control Software (RCS).

Issues Requiring Clarification

- When a **Pressure Pulsed** injection is used the actual Column Flow displayed on the TurboMatrix Remote Control Software (RCS) screen appears in RED during the Pulse but on the Thermal Desorber it is displayed in BLACK. If the Thermal Desorber displays the Column Flow in BLACK (which means ready) a RED display in the RCS will not affect the run and the proper values will be applied. (CMAA7HJMVQ)

- When the trap has reached its **HIGH temperature** and during TRAP HOLD the actual temperature displayed on the TurboMatrix Remote Control Software (RCS) screen appears in RED but on the Thermal Desorber it is displayed in BLACK. If the Thermal Desorber displays the actual temperature in BLACK (which means ready) a RED display in the RCS will not affect the run and the proper values will be applied. (CMAA7HJMUS)

- When oven goes to the **dry purge temperature** the actual temperature displayed on the TurboMatrix Remote Control Software (RCS) screen appears in RED but on the Thermal Desorber it is displayed in BLACK. If the Thermal Desorber displays the actual dry purge temperature in BLACK (which means ready) a RED display in the RCS will not affect the run and the proper values will be applied. (CMAA7HJMRW)

- In the TurboMatrix Remote Control Software (RCS), when **Pausing a sequence** in the middle of a run, the sequence displayed continues until the row completes, then it pauses. To Resume the sequence, click on the row where you want to resume, then restart the sequence. (CMAA7J7MNN)

- When running the TurboMatrix Remote Control Software (RCS) with the TurboMatrix 350 with an Internal Standard Accessory it is possible to enter a Dry Purge Flow Rate through RCS. Since the TurboMatrix 350 does not have a Mass Flow Controller (MFC) this parameter is grayed out. (CMAA7JCRFG**)**

- The **inlet split setpoint** may sometimes display incorrectly on the TurboMatrix Remote Control Software (RCS) Method screen, but it displayed correctly on the Method Editor screen and on the Thermal Desorber display. In this case it will not affect the run and the proper values will be applied. (CMAA7HJMKY)

- The TurboMatrix Remote Control Software (RCS) may lockup on connection during certain states. You must wait for the initialization of the system, especially the HARDWARE TEST, to complete before attempting to connect to the TurboMatrix instrument with the RCS. If you attempt to connect to the TurboMatrix instrument from the RCS during HARDWARE TEST (and other states), a "WAITING" message window appears on the screen and does not go away after connection is established. All that can be done at that point is to use WINDOWS to stop the RCS application and then restart it. (PDAO7HYLBT**)**

- Do not use the following run types in the middle of a sequence because They may access the wrong data file causing the sequence to become out of synch (CMAA7HNRGF)

  TRAP CLEAN (no start signal)

  TUBE CONDITIONING (no secondary desorb)

  LOAD Internal Standard ON CLEAN TUBE (no secondary desorb)

- In the Desorb+Condition mode, tube conditioning during chromatography will occur if at least 5 minutes of idle time is available in the Cycle Time. Conditioning only occurs for the last injection on a tube.

Idle time is calculated as the The Cycle Time – (Sum of TD operations). Additional tube cooling time is calculated as the time beyond the standard 60 (or 120, depending on configuration) seconds to cool the tube from the tube conditioning temperature to ambient (extra cooling time).

There are 3 possibilities:

  - Not enough idle time. Idle time < (5 minutes + extra cooling time). Conditioning is skipped and system remains in normal Analysis state.

  - Enough idle time and tube can be sufficiently cooled during "Cooling Tube" state. Conditioning will take place for entire idle time. Status line will indicate "Desorb+Condition".

  - Enough idle time, but tube cannot be sufficiently cooled during "Cooling Tube" state. Conditioning of tube will stop before the end of the idle time, and tube will be allowed to cool for the remainder of the idle time. Status line will indicate "Desorb+Condition".

- Condition Flow stays on after tube oven retracts. During the Desorb+Condition mode the conditioning flow is maintained throughout the conditioning and analysis cycle and is only shut off during tube cooldown before unloading the tube. Users should be aware that high gas flows during conditioning may result in increased consumption of carrier gas. (DSCT6JWME5)

- When using Desorb+Condition mode, the actual flow rate of carrier gas through the tube is not displayed on the system status pages of the TurboMatrix TD. You can validate the correct operation of the mass flow controller before and after tube conditioning by checking it on the TD instrument Check Pneu page on the Tools Menu. To check that the correct flow is actually applied during the conditioning procedure, you can attach a flow-meter to the vent at the top of the instrument. This also applies to the RCS software. (FLDL6JPRPX)

- There is an approximately 2-minute PPC equilibration period, depending on method and configuration parameters. PPC control requires a more sophisticated approach in maintaining the set pressure while the various system flows and valve positions are being changed. The most critical period is after the tube has been desorbed and the system gets ready for trap desorption. To maintain the carrier gas pressure (or flow) into the GC column during this transition requires a carefully staged approach that make take a few minutes. In most instances this time will not impact system throughput because it will be absorbed during the time overlap between chromatography of the current sample and tube desorption and trap equilibration of the next. To minimize the impact in this way, you must enter a suitable cycle time in the method. Full details of setting the cycle time are described in the TurboMatrix TD User's Manual. (ATIR6JRM59)

- There is "missing information" on the online accessory stream selector valve position. In previous versions of firmware and software, an empty tube was loaded from position 1 and the tube number reported on the log page at the end of the analysis reflected the position of the stream selector valve: 1 = sample; 2 = standard.

On the new versions of firmware and software, you are given extra flexibility in being able to select the position of the empty tube for online work. This simplifies the use of both tube and online methods within the same sequence. The actual tube number is now reported in the log page and the stream selector position is now no longer recorded. As TotalChrom is normally used to control the position of the stream selector valve through timed events in a method, the stream selector valve position for each run can be determined by reviewing the TotalChrom sequence or .IDX file. (ATIR6GDGGR)

- If you want to control the RCS software through TotalChrom v6.3 Workstation it can only control one TurboMatrix TD at a time. When running two TD instruments through TotalChrom v6.3, there may be occasions when the RCS would appear to lock up. Such events are rare and will clear themselves after a period of 5 minutes when the software will behave normally again. There is no loss of data or method integrity. If you want to control more than one TurboMatrix TD at a time, do not use the RCS software through TotalChrom Workstation. (FLDL6JERLK)

- Difference in split ratio limits between firmware and RCS. The maximum split ratio for the outlet split will be reached when the flow set by the mass flow controller reaches 200mL/min. The system will automatically apply a maximum limit on the split ratio in order to maintain this flow rate limit. The firmware will impose an additional limit of 500:1 but users will not see this unless column flow rates of less than 0.4mL/min are used so this is not really a practical restriction as almost all column flow rates will be higher than this.

  There is a discrepancy in the Remote Control Software in that an outlet split ratio of up to 2000:1 may be entered. To achieve this, a column flow of 0.1mL/min must be entered – again this is not really a practical setting. To ensure operational compatibility between the Remote Control Software and the firmware, values greater than 500:1 should not be entered. (DSCT6GPNNN)

- When using Recollection+New mode it is important to check that the new tubes for recollection are in the correct position, have been conditioned, and are leak free before starting the run. (DSCT6JVL59)

- When using Recollection New mode of operation the tube number in the .RAW and .RST files is that of the original tube.

- It is important that tubes are placed in the correct positions for analysis. Missing tubes should be avoided whenever possible, especially in methods with multiple injections per tube. (DSCT6JZTWN)

- Deviations (for example GC not ready) are not recorded in the Sample Notes field of the sequence description. (DSCT6FZN9G)

- Do not cancel a run when using TurboMatrix sampling. Canceling a run clears the data but TotalChrom stays on the same line of the sequence waiting for the next injection. TurboMatrix advances to the next tube but the sequence does not advance and could become out of sync. (AWSN69DPWL)

Workaround: If you cancel a run and clear the setup (sequences) then there is no problem. If you don't clear the setup then the sequence will be misaligned with the TurboMatrix sequence and vial confusion will occur.

- The recommended mode of operation while under TotalChrom software control is to utilize "Single Run Buffering" during the Sequence setup process. (DSCT69UNMW)
- I think this only refers to HS and can be removed. If the last tube/vial in a sequence is missing, the signal detecting a missing tube/vial does not occur. Consequently, TotalChrom does not bypass this row of the sequence causing the remainder of the tube/vials and methods to be out of synchronization. (DFEN6ALHKC)

  Workaround: Always make sure that there is a tube/vial (it could be an empty vial) in the last vial position of a sequence when you have more sequences to run.

- TD now has a "Fail Out" checkbox in Tools/Preferences/Configuration.
  - "Fail Out" checkbox checked: Enables the firmware to assert the fail out signal on tube/trap errors. Use this mode if you are not using TotalChrom or if you are using the pre-integration TotalChrom.
  - "Fail Out" checkbox unchecked: Enables the firmware to inform the software in the event of a tube/trap error so that the corresponding row in TotalChrom can be skipped. Fail out signal is not asserted. Use this mode if running with the integrated TotalChrom (6.3.1 and up).
- This only refers to HS and can be removed. If you have a failout caused by a missing tube/vial when using the new TurboMatrix firmware with TotalChrom v6.3 and you have the failout cable connected between the TurboMatrix and the GC your sequence will advance two lines instead of one line. This happens because TotalChrom advances the sequence one line when the RCS reports the missing vial. Also, the firmware sends a failout signal through the cable to start the GC which now causes the sequence in TotalChrom to be misaligned. (AWSN69LMVH)

  Workaround: When running the new TurboMatrix firmware with TotalChrom v6.3 do not connect the failout cable to the GC.

- The trap temperature set in the method can exceed the Maximum Trap Temperature set in the Preferences menu. (DSCT66KQXX)

  Workaround: To prevent this, select the Trap Hi setpoint after making changes to the Set Trap Maximum Temperature.
- This was fixed on the TD and now only applies to the HS. There is a problem with similar names in the firmware method editor and sequence editor. (DSCT65CPQZ)

  Workaround: Use TotalChrom 6.3.

- Your system will become out of sync if your trap hold time is longer than your GC run time. (DSCT66CS68)

  Workaround: Set your trap hold time shorter than your GC run time.

- Synchronized sequencing between TotalChrom and the TurboMatrix will only occur when running sample tubes/vials. For this reason, do not include Trap Clean methods (or other

methods in which the GC is not started, such as Tube conditioning, Load internal standard on clean tube) in such sequences. (DSCT65CMV8)

- In a TotalChrom sequence, the .mth extension is added to the method file when the sequence is setup from the method editor. This in turn leads to separate lines of the TurboMatrix sequence and decreases the sample throughput. (DSCT68BP4Z)

  Workaround: Go into the TotalChrom sequence and delete the .mth extension.

KNOWN BUGS IN v2.7.0

In the TD Remote Control Software (RCS), the Tube Desorb Pressure is always shown in psi (DSCT6JNPCF).

In the TD Remote Control Software, the Recollect flow value is not retained in the RCS and is not displayed when running sequences. If you enter a Recollect flow (for new or old tubes) in the RCS Method Editor, save the method, and close the method when you reopen the method the Recollect flow is displayed as "0 "(DSCT6JSTVS)

Workaround: The recollection flow is displayed on the TD instrument GUI screen and can be measured with a flow meter during the recollection phase. Printing the method will print the recollection flow when the recollection flow is not displayed in the RCS.

If the TotalChrom sequence is aborted, the TurboMatrix sequence is not cleared. (AWSN69QSMJ)

If communication (or other type) errors occur within the LINK box and cause TotalChrom to abort a sequence in progress, this information is not communicated to the TurboMatrix software and can produce extended thermostat times.

I think this only applies to HS and can be removed. RCS software does not get the missing tube/vial message for the last vial if the previous vial was also missing. (DSCT698N6A)

When there are two empty tubes/vials at the end of a sequence then the log is missing that entry for the last missing tube/vial. This only occurs on the last tube/vial position of a sequence.

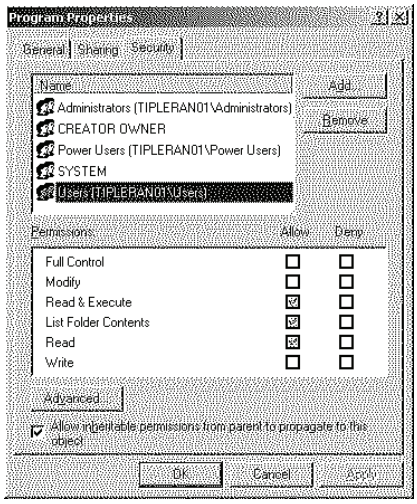
Under Windows XP and 2000 operation, Methods and Sequences could not be saved while logged on as a Limited account user. (ALCE5Y7JZS)

Some directories are 'locked' when logged on as an administrator. The TurboMatrix RCS default directory (..\TurboMatrix\Program\) is one of these.

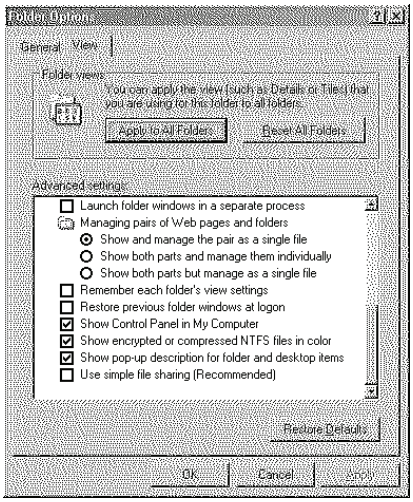
Workaround: To correct this we recommend the following:

- Disable the Administrator from locking the default directory or to select another directory in which to store Methods etc.
- Advise the user to disable Standby mode on the PC.

  An Administrator can unlock that particular directory (by allowing 'Full Control', 'Modify' and 'Write') for Limited or Restricted Users in the Folder Properties Screen as follows:



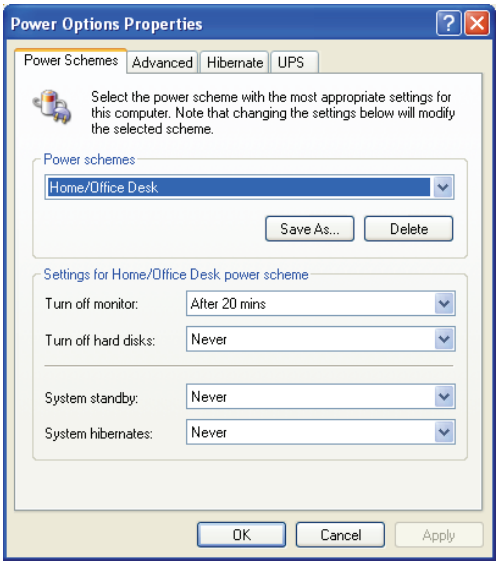
This works for both Windows XP and Windows 2000. In some Windows 2000 installations, it may be necessary to enable the “Use simple file sharing” option as follows (last entry):



Under WinXP and (Windows 2000), RCS stops unexpectantly while connected to an instrument once the System standby power management option goes into effect. (ALCE5Y7K3J)

It appears that the RCS stops unexpectantly when the System Standby within Power Options properties is set to something other than Never. System standby should be set to Never, but you can set the monitor to power off with no effect on the RCS. It was discovered that the System Standby setting of the Power Options Properties is the cause of the crash.

Workaround: It is recommended that this option be set to ***Never***. Below is a screen capture of the Power Options Properties and what the recommended settings should be.



Description	Workaround
Attempting to connect RCS to instrument during certain instrument states can lead RCS to lockup. (CMAA7H9R89)	Only connect to instrument when it is in the STANDBY state (READY/NOT READY).
Issues with PAUSE feature on instrument and in remote control software. (CMAA7J7MNN) Pause, when invoked from instrument, indicates “pause after this tube is returned”. When invoked from RCS, indicates “pause after this row is completed”.	Do not initiate pause from instrument keypad while it is running under software control. When the remote control software is in the paused state, you have to manually select the next row to be run with the mouse and hit Start Sequence to resume with that row.
Inlet split setpoint on RCS displayed incorrectly when in ratio mode (CMAA7HJMKY)	The Display on instrument keypad is correct
Ready/not ready status of tube oven is not correct when heated dry purge is taking place (CMAA7HJMRW)	The Display on instrument keypad is correct
Incorrect ready/not ready indication when heating trap (CMAA7HJMUS)	The Display on instrument keypad is correct
Ready/not ready status of column flow is incorrect during an inverse pressure pulse.(CMAA7HJMVQ)	The Display on instrument keypad is correct
You are allowed to set dry purge flow on non-ATD 650 Thermal Desorber with Internal Standard Accessory (CMAA7JCRFG)	Do not change the dry purge flow unless using an ATD 650.
Methods in an existing sequence not updated when changed (CMAA7HJNAC)	If a method that is already in a sequence is modified, delete the method from the sequence then re-add the method to the sequence.
Display of % injected on RCS different from instrument. On instrument, setpoint mode, always displays % injected On RCS, always displays % injected, but only shows a non-zero value during trap desorption (CMAA7HJNTT)	The Display on instrument keypad is correct

Incorrect ready/not ready indication on trap temperature. RCS will sometimes indicate that trap is not ready when it is. (CMAA7JCRC7)	The Display on instrument keypad is correct
There is an overlapping GUI (or a GUI refresh issue) in RCS when running two instruments connected with a USB. If you tab between the instruments the displayed pages do not refresh. (AWSN697M3M)	Use a dual COM port system instead of USB.
It is possible to select the Configuration tab of a connected instrument and change the sampler type. (DSCT692KQR)	Never select the Configuration tab of a connected instrument.
After installing the software, it is necessary to reboot the PC in order for the software to function. The reboot prompt is hidden in back of other windows at the end of installation and will be missed by the user. The software then appears to be faulty.	After installing the software, ensure that the system is rebooted prior to use.
Discrepancy between firmware and Remote Control Software (RCS) on Event Time. Keypad allows 999.99 min whereas 999.9 min is the maximum in RCS. (TNGG5T2RFK)	Do not exceed 999.9 minutes.
Log within firmware and Log within remote control software do not display the same information. In some instances the log on the firmware reported a message that said "Run Stopped!". However the log in the RCS did not display this message of "Run Stopped!". (ALCE5NTQQK)	User should check the keypad log page.
Method names do not support use of decimal points. (DSCT5SXJUA)	Do not use decimal points in method names.
Scroll bar and arrows on Log tab are not initially visible. (AKCO5PCLED)	Functionality re-appears during access.
Is now fixed in TD. Only applies to HS. Two methods with similar names may be entered into the firmware yet the firmware cannot differentiate between them. (DSCT5UAP6H)	Avoid the use of similar names for methods.

Unclean Uninstall of PerkinElmer folder from the Programs directory. AKCO5PCLCD)	Some files are left behind. These can be deleted if needed
A full run log is not handled properly. If the run log is filled up (either by running many sequences or encountering many errors), the firmware will stop functioning properly. It may lockup or get stuck in a particular analysis state. Note: the max size of the run log is 32k. (CMAA5N7PPN)	This situation will only occur after about 600 consecutive runs.
Date format in footer of printed Method Report does not match date format of "Created" & "Modified" fields within report. (ALCE5RHNE2)	No workaround
The application locks up when more than 249 characters is used to define the Instrument Name. (ALCE5R7HRK)	Avoid the use of more than 249 characters in instrument name.
Touch screen display dimming within Economy Mode does not work properly. (ALCE5NVNF2)	No workaround
Lost communication between PC and the TurboMatrix unit.	This has been reported by a few users in high throughput applications where significant post-run

	processing takes place on the PC.