KickStart Instrument Control Software
Version 2.5.0 Software Release Notes

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Contents

GENERAL INFORMATION

SUPPORTED MODELS

This software is intended for use with the following Keithley Instruments and Tektronix product models using USB, LAN (ethernet), or GPIB interfaces. The use of RS-232 (serial) is not supported. You can find the supported operating systems here: Supported operating systems.

Product category

DAQ					
2700	2701	2750	3706A	3706A-NFP	DAQ6510*

*Includes DAQ6510-US

Switch cards					
2000-SCAN	2001-TCSCAN	3720	3721	3722	3723
3724	7700	7701	7702	7703	7706
7707	7708	7710			

DMM					
2000	2010	2100	2110	DMM6500*	DMM7510*

*Includes DMM6500-US, DMM-7510-US, DMM-7510-NFP, DMM7510-NFP-US, DMM7510-RACK, DMM7510-RACK-US, DMM7510-NFP-RACK, DMM7510-RACK-US

Product category

SMU					
2400	2400-C	2401	2410	2410-C	2420
2420-C	2425	2425-C	2430	2430-C	2440
2440-C	2450	2460	2461	2470	2601A
2601B	2602A	2602B	2604B	2606B	2611A
2611B	2612A	2612B	2614B	2634B	2635B
2636A	2636B	2651A	2657A	2601B-PULSE	

Sensitive					
6430	6485	6487	6514	6517A	6517B

Power Supply					
222x	223x	2280S-32-6	2280S-60-3	2281S-20-6	

Oscilloscope					
DPO3012	DPO3014	DPO3032	DPO3034	DPO3052	DPO3054
DPO4014B	DPO4032	DPO4034	DPO4034B	DPO4054	DPO4054B
DPO4102B	DPO4102B-L	DPO4104	DPO4104B	DPO4104B-L	MDO3012
MDO3014	MDO3022	MDO3024	MDO3032	MDO3034	MDO3052
MDO3054	MDO3102	MDO3104	MDO32	MDO34	MDO4014-3
MDO4014B-3	MDO4024C	MDO4034-3	MDO4034B-3	MDO4034C	MDO4054-3
MDO4054-6	MDO4054B-3	MDO4054B-6	MDO4054C	MDO4104-3	MDO4104-6
MDO4104B-3	MDO4104B-6	MDO4104C	MSO3012	MSO3014	MSO3032
MSO3034	MSO3052	MSO3054	MSO4012B	MSO4012B-L	MSO4032
MSO4034	MSO4034B	MSO4054	MSO4054B	MSO4104	MSO4104B
MSO4012B-L	TBS1000C	TBS1022	TBS1032B	TBS1032B-EDU	TBS1042
TBS1052B	TBS1052B-EDU	TBS1052C	TBS1062	TBS1064	TBS1072B
TBS1072B-EDU	TBS1072C	TBS1102	TBS1102C	TBS1104	TBS1152
TBS1152B	TBS1154	TBS1202B	TBS1202C	TBS2072B	TBS2074B
TBS2102B	TBS2104B	TBS2202B	TBS2204B		

Product category

Oscilloscope					
TBS1202B-EDU	TBS2000B	TBS2072	TBS2074	TBS2102	TBS2104
TBS2202	TBS2204	TDS210	TDS220	TDS224	TDS1001
TDS1001B	TDS1001C-SC	TDS1002	TDS1002B	TDS1002C-SC	TDS1012
TDS1012B	TDS1012C-SC	TDS2001C	TDS2002	TDS2002B	TDS2002C
TDS2004	TDS2004B	TDS2004C	TDS2012	TDS2012B	TDS2012C
TDS2014	TDS2014B	TDS2014C	TDS2022	TDS2022B	TDS2022C
TDS2024	TDS2024B	TDS2024C			

SUPPORTED OPERATING SYSTEMS

KickStart is supported on the following operating systems:
  Windows® 10, 64-bit; KickStart version 2.0.0 and newer
  KickStart software is compatible with Windows® 7 and Windows® 8; however, KickStart is no longer being
  tested or updated to support these obsolete operating systems.

SUPPORTED COMMUNICATION INTERFACES

  USB
  LAN
  GPIB

MINIMUM PC REQUIREMENTS

  Processor: Dual-core processor 2 GHz or better
  NTFS file system
  RAM: 8GB
  Display resolution: Minimum 1920 × 1080 recommended
  Disk drive space required: 8 GB of free space

RECOMMENDED PC REQUIREMENTS

  Processor: 4-core processor @ 2 GHz or better
  NTFS file system
  RAM: 16GB or more
  Display resolution: Minimum 1920 × 1080 recommended
  Disk drive space recommended: 100GB or more free space for data storage

SOFTWARE PREREQUISITES

  NI VISA™ 17.5 Runtime Engine or later (installation package included in KickStart installer)
  Microsoft® Visual Studio® C++ 2013 x64 Redistributable Package
  Microsoft® Visual Studio® C++ 2017 x64 Redistributable Package
  .NET Framework 4.7.

  When installing KickStart without an internet connection, make sure that the last three software prerequisites
  are installed on your computer before installing. The NI VISA 17.5 Runtime Engine is packaged with the
  KickStart installer.

INSTALLATION INSTRUCTIONS

Download the KickStart 2.5.0 installer from tek.com/keithley-kickstart. Unzip the file and run
`KickStartSetup.exe`.
Follow the installation instructions and accept all default settings.
The installer installs the required files into the following default location: `C:\Program Files\Keithley Instruments\KickStart`.

KickStart version 2.5.0 requires a software license. You can activate a one-time 60-day free trial with most KickStart apps. For more information on licenses available for KickStart version 2.5.0, please visit tek.com/keithley-kickstart.
For more information on KickStart, see the *KickStart Quick Start Guide* (document number: KKS-903-01), available online at tek.com/keithley-kickstart.

KICKSTART INSTRUMENT CONTROL SOFTWARE HISTORY

Version	Release date
2.5.0	April 2021
2.4.0	November 2020
2.3.0	April 2020
2.2.1	February 2020
2.2.0	November 2019
2.1.1	September 2019
2.1.0	June 2019
2.0.6	February 2019
2.0.5	November 2018
2.0.4	October 2018
2.0.3	August 2018
2.0.2	July 2018
2.0.1	July 2018
2.0.0	April 2018

VERSION 2.5.0 RELEASE NOTES

VERSION 2.5.0 KNOWN ISSUES

Issue number:	KS-4240
Description:	The following table indicates the bias level and limit values allowed in KickStart during pulsing for each instrument series:

Series 260x				
Region	**Source voltage**	**Max current limit**	**KickStart max bias level**	**KickStart max bias limit**
1	40 V	1 A	40 V	1 A
1	6 V	3 A	40 V*	1 A
2	40 V	1.5 A	40 V	1 A
3	35 V	5 A	40 V	1 A
4	20 V	10 A	40 V	1 A
5	6 V	5 A	Not supported	Not supported
Region	**Source current**	**Max voltage limit**	**KickStart max bias level**	**KickStart max bias limit**
1	1 A	40 V	3 A*	6 V
1	3 A	6 V	3 A	6 V
2	1.5 A	40 V	3 A	6 V
3	5 A	35 V	3 A	6 V
4	10 A	20 V	3 A	6 V
5	5 A	6 V	Not supported	Not supported
Series 261x/263x				
Region	**Source current**	**Max voltage limit**	**KickStart max bias level**	**KickStart max bias limit**
1	100 mA	200 V	1 A*	20 V
1	1.5 A	20 V	1 A	20 V
2	1 A	180 V	1 A	20 V
3**	1 A	200 V	1 A	20 V
4	10 A	5 V	1 A	20 V
Region	**Source voltage**	**Max current limit**	**KickStart max bias level**	**KickStart max bias limit**
1	200 V	100 mA	200 V	100 mA
1	20 V	1.5 A	200 V*	100 mA
2	180 V	1 A	200 V	100 mA
3	200 V	1 A	200 V	100 mA
4	5 V	10 A	200 V*	100 mA

*In some cases, KickStart will allow higher bias levels that are not supported by the instrument.

**KickStart allows 1 A @ 200 V pulsing that may yield unexpected pulse characteristics; this will be corrected in a future release.

Issue number:	KS-4297
Description:	Incorrect results are reported in KickStart while running a current pulse dual sweep test using a Model 2461 instrument.
Issue number:	KS-4270
Description:	KickStart will allow current pulsing in Power Region 3 for the Series 2600B instruments. You can force current, but it is highly unlikely that you will get useable settled pulses.
Issue number:	KS-4146
Description:	In the Data Logger app, KickStart consumes large amounts of memory when running scans of large channel counts with the Model 3706A.
Issue number:	KS-3751; NS-1952
Description:	Current pulse list sweep tests in the I-V Characterizer do not produce the correct results.
Issue number:	KS-3730
Description:	When using a 2461 with version 1.7.2b firmware, the sheet and graph will not display the first pulse in the "I-V Characterizer Pulse" test. This only occurs with complete pulse measurements and not Top of Pulse Only measurements.
Workaround:	To display the first pulse, configure one more pulse than you need.
Issue number:	KS-3673
Resolution:	When using the I-V Characterizer app with a 2657A instrument in pulse mode with default settings, an "ADC trigger failure" error is generated by the instrument.
Issue number:	KS-3667
Description:	In the I-V Characterizer app, if the graph is visible while running a pulsed I-V test, the graph may stop updating.
Workaround:	To correct this issue, press the autoscale button.

VERSION 2.5.0 ENHANCEMENTS

Issue number:	KS-4195
Resolution:	PT1000 is now supported as a standard RTD-type in the Data Logger and DMM apps.
Issue number:	KS-4097
Improvement:	Added the functionality to "Copy to Clipboard" in the graph by right-clicking the graph surface to take a screen shot.
Issue number:	KS-4090
Improvement:	Customers now have the option to purchase and install individual app licenses.
Issue number:	KS-4048
Improvement:	Added functionality to the Power Supply app so that it indicates constant current (CC) or constant voltage (CV) instrument states.
Issue number:	KS-3971
Improvement:	Added functionality to the dc current function in the DMM app so the user can control the line synchronization.
Issue number:	KS-3726; KS-3434
Improvement:	Added support to pulse the 26xxA and 26xxB instruments in the I-V Characterizer app. Since these instruments do not have digitizing analog-to-digital (A/D) circuits, a single point is measured at the top of the pulse.
Issue number:	KS-3543
Improvement:	Added the capability to pulse the following instruments using the I-V Characterizer app software: Models 2450, 2460 and 2470.
Issue number:	KS-2931
Improvement:	Added functionality to the Data Logger app to support channel delay settings for the DMM6500, DAQ6510, and Model 3706A instruments and channel auto-delay settings for the DMM6500 and DAQ6510 instruments.

VERSION 2.5.0 USAGE NOTES

Issue number:	KS-3912
Description:	When using a 6517B in the DMM app, if mX+b is selected as the math function, the instrument displays `Poly` as the function even though the performed math operation is actually mX+b.

VERSION 2.5.0 RESOLVED ISSUES

Issue number:	KS-4248
Resolution:	Incorrect test results may occur when performing a voltage pulse dual sweep test while using a Model 2461 instrument. This issue has been resolved.

Issue number:	KS-4176
Resolution:	When using the I-V Characterizer app in pulse mode with the source level set to a value outside the allowed source range boundary, an error message appeared on the user interface to indicate the error state. However, the error message was incorrect. This has been resolved and now the user interface shows the correct error message.
Issue number:	KS-4168
Resolution:	When using the DMM app with a 6517A or 6517B instrument configured to collect DC Voltage or DC Current measurements, the test aborted and indicated a "Setting Conflict Error (-221)." This has been resolved.
Issue number:	KS-4145
Resolution:	Exporting a run with "Include test configuration" option selected in the Data Logger app failed when KickStart was in Chinese or Japanese language. This has been resolved.
Issue number:	KS-4144
Resolution:	While using the I-V Characterizer app with 2410, 2420, 2430 or 2440 instruments configured to collect programmed values for voltage source, the instrument returned Overflow readings for the current measurements. This has been resolved.
Issue number:	KS-4122
Resolution:	When the Data Logger app is configured to run multiple times and collect temperature measurements, the memory consumption of the application increased exponentially and the application eventually crashed. This has been resolved.
Issue number:	KS-4101
Resolution:	When the DMM app was used with a 6514 or a 6485 instrument during testing, the test aborted immediately without collecting any data. This has been resolved.
Issue number:	KS-4100
Resolution:	If an error occurred in the DMM app configured to collect Digitize Voltage or Digitize Current measurements using a DMM6500 or DMM7510 instrument, the error message on the instrument front panel was immediately overwritten by an "In Process" message which made it impossible for the user to read the error message. Additionally, the digitize aperture would manually configure settings when it should have relied on auto settings. This has been resolved.
Issue number:	KS-4093
Resolution:	While using the Power Supply app with a Model 2230G and when the output was disabled from the front panel, KickStart failed to re-enable the output for the next run. This has been resolved.
Issue number:	KS-3792
Resolution:	When using the I-V Characterizer app with a 2461 instrument in pulse sweep mode with "Number of Pulses" set to 1, the instrument generated an error aborting the test. The minimum number of pulses is now set to 2. Also, in some settings, the app incorrectly configured the instrument with negative delays causing it to error and abort the test. This has been resolved.