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Contents

KickStart Updates	1
KickStart Software	1
Battery Simulator App	2
Data Logger App	4
DMM App	4
I-V Characterizer App	5
Scope App	5
Pulsing For Instruments	6
General Information	7

KICKSTART UPDATES

This updated release of KickStart software version 2.11.1 fixes several bugs. KickStart software is available for use with the Keithley Instruments Arbitrary Function Generators (AFG), Data Acquisition (DAQ) instruments, Digital Multimeters (DMM), SourceMeter Source Measure Units (SMU), Sensitive Instruments, Power Supplies, and Tektronix Oscilloscopes.

KICKSTART SOFTWARE**USAGE NOTES**

Issue number:	KS-7261
Description:	The end user license agreement (EULA) has been updated. Review the EULA when running the KickStart installer or from the licenses folder in the KickStart install location.
Issue number:	KS-5894
Description:	The Model 6514 Electrometer has been limited to an NPLC of one. When communicating with KickStart, the instrument cannot support a faster measurement speed.

FIXED ISSUES

Issue number:	KS-6250
Description:	While collecting data with a real (non-simulated) instrument, if the KickStart application is closed, KickStart becomes unresponsive. This issue has been resolved.



Issue number:	KS-3670
Description:	The error message when loading a .csv file that is inaccessible due to being locked or file permissions has been clarified. This issue has been resolved.

BATTERY SIMULATOR APP

NEW FEATURES

Issue number:	KS-7088
Description:	While using the Battery Simulator application in Cycle Test mode, an additional feature to check the battery's voltage before starting with the test has been added. Charging an over-discharged battery may be a safety issue to battery chemistries. If the battery voltage is below the empty voltage, the Cycle Test will abort.
Issue number:	KS-6436
Description:	Created a radio button so customers can switch between current rate and amperage. All the numeric input controls that are displaying amperage will convert to current rate when the radio button is selected.

USAGE NOTES

Issue number:	KS-7155
Description:	When using Battery Simulation mode, KickStart will not accept any model with an ESR over 10 Ω . This is due to a limitation in the Model 2281s firmware and is regardless of whether those models can be loaded into the 2281s through the front panel. The 10 Ω limit on models applies regardless of which instrument is used with the battery simulation mode.
Issue number:	KS-6436
Description:	Created a radio button for customers to switch between the current rate and amperage. All numeric input controls displaying current will change to the current rate when the radio button is selected.

FIXED ISSUES

Issue number:	KS-7192
Description:	Minimized View for Battery App/Cycle Test Mode is not updating the state of the Vt graphical display. This issue has been resolved.
Issue number:	KS-7131
Description:	When using the Battery Simulator with a SMU, the response time of the SMU is slow due to the auto-range. You can now select a fixed range. This issue has been resolved.
Issue number:	KS-7109
Description:	The Battery Simulator cycle test settings message window displays input terminal data which does not apply to the Model 26xx SMU and is not part of the instrument settings. This issue has been resolved.

Issue number:	KS-7106
Description:	In the Battery Simulator application, while running a simulate battery mode test, you are not able to manually change the SOC value. For example, any value you manually change will revert to the previous value. This issue has been resolved.
Issue number:	KS-7103
Description:	When running a cycle test with a Model 26xx instrument, the present settings change and new settings are created after run is completed. This issue has been resolved.
Issue number:	KS-7098
Description:	The cycle test checks the battery capacity after a charge causes a failure. This behavior is incorrect. The cycle test should only check the battery capacity after a discharge operation. This issue has been resolved.
Issue number:	KS-7081
Description:	When cycle testing, the minimized view can sometimes report a blank capacity value. This issue has been resolved.
Issue number:	KS-7080
Description:	When cycle testing, there are conditions when the miniature view may show the current cycle state incorrectly. This issue has been resolved.
Issue number:	KS-7051
Description:	When opening a saved project in Simulate Battery Mode, Full V and Empty V are restored from the selected battery model default instead of a previously entered value. This issue has been resolved.
Issue number:	KS-6937
Description:	When using the Model 2461 to generate a battery discharge model, the Range setting displays 10A as an option. This option is not valid for battery discharge models. Selecting it will return an error message. This issue has been resolved. The 10 A range is no longer an option.
Issue number:	KS-6904
Description:	When saving a new project with a Battery Simulator App in Cycle Test mode, the sheet may not display data. This issue has been resolved.
Issue number:	KS-6541
Description:	The Battery simulator application model browser does not reject a corrupt file when the file is imported. This issue has been resolved.
Issue number:	KS-6536
Description:	When editing a model in the model browser, if you select the same model in a different instance of the Battery Simulator App, the data shown in the application is reverted to the previously selected model. This issue has been resolved.

DATA LOGGER APP

FIXED ISSUES

Issue number:	KS-7245
Description:	In the Data Logger application, when starting a test with a Model 6510 equipped with KTTI-GPIB, KTTI-TSP, or KTTI-RS232 cards, it will report <code>error: 1805 Cannot set stimulus when Line 1 Mode is set to Digital.</code> This issue has been resolved.
Issue number:	KS-7154
Description:	After running a DC voltage scan test in the Data Logger application with a Model 6510 attached along with a 7700 switch card, saving the test could trigger an error stating: <code>Index out of range.</code> This issue has been resolved.
Issue number:	KS-6364
Description:	In the Data Logger application, when doing a DC voltage scan test with the Model 6510 attached along with a 7700 card, if there is no channel configured for the enabled channel limit, the test data will have inconsistent scan intervals. This issue has been resolved.

DMM APP

USAGE NOTES

Issue number:	KS-6524
Description:	When auto-export is enabled and a large amount of data is exported at the end of a run, the application now indicates that it is exporting data.

FIXED ISSUES

Issue number:	KS-6758
Description:	The Rel function will not send a reset to the DMM, resulting in settings remaining in place as they have been set. This issue has been resolved.
Issue number:	KS-5938
Description:	When opening the DMM application with a Model 6485 using firmware revision C01 or C02, KickStart indicates that you need to upgrade to firmware B04. This issue has been resolved. KickStart will correctly identify the firmware and will not prompt you for incompatible firmware upgrades.

I-V CHARACTERIZER APP

FIXED ISSUES

Issue number:	KS-7229
Description:	If you run a complete pulse measurement test in the I-V Characterizer application with a Model 2461, and then run a battery cycle test in the Battery Simulator application with the same Model 2461, the instrument will report an error stating the digitizer cannot be used in this mode. This issue has been resolved.
Issue number:	KS-7228
Description:	In the I-V Characterizer application, if you run a nested sweep twice in a row, the default X-axis of the graph for the data from the two runs do not match. This issue has been resolved.
Issue number:	KS-7166
Description:	When using the I-V Characterizer application, when comparing two runs, and one run has a run number greater than or equal to 10, the comparison graph will not contain all the X-axis options, however, the time option remains. This issue has been resolved.
Issue number:	KS-7105
Description:	When opening the I-V Characterizer application with a Model 2657A or a 2651A with firmware version 1.2.0, the instrument displays error <code>-285s</code> . This issue has been resolved.
Issue number:	KS-6587
Description:	In the I-V Characterizer application, when configuring a logarithmic sweep, the asymptote value is not correctly adjusted when the start value is changed from a negative value to a positive value. This makes the corresponding curve in the graph only part of the whole curve which may look like a linear curve. This issue has been resolved.
Issue number:	KS-5889
Description:	When using the I-V Characterizer application with a Model 26XX SMU, running the I-V test with High-C (capacitance) mode enabled could lead to <code>error: 1102, parameter too small</code> . This issue has been resolved.

SCOPE APP

FIXED ISSUES

Issue number:	KS-6549
Description:	The simulated readings for the Scope App are identical for the following data points: Amplitude, frequency, post-duty cycle, data rate, maximum, hold time, and peak-to-peak. This issue has been resolved.

PULSING FOR INSTRUMENTS

USAGE NOTE

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.

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

AFG

31021	31022	31051	31052	31101	31102
31151	31152	31251	31252		

DAQ

2700	2701	2750	3706A	3706A-NFP	DAQ6510*
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*Includes DAQ6510-US

SWITCH CARD

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

DMM

2000	2010	2100	2110	DMM6500*	DMM7510*
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*Includes DMM6500-US, DMM-7510-US, DMM-7510-NFP, DMM7510-NFP-US, DMM7510-RACK, DMM7510-RACK-US, DMM7510-NFP-RACK, DMM7510-RACK-US

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	2601B-PULSE	2602A	2602B	2604B	2606B
2611A	2611B	2612A	2612B	2614B	2634B
2635B	2636A	2636B	2651A	2657A	

SENSITIVE

6430	6485	6487	6514	6517A	6517B
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POWER SUPPLY

222x	223x	2280S-32-6	2280S-60-3	2281S-20-6	2200-20-5
2200-30-5	2200-32-3	2200-72-1	2200-60-2	2260B-30-36	2260B-80-13
2260B-250-4	2260B-800-1	2260B-30-72	2260B-80-27	2260B-30-108	2260B-250-9
2260B-800-2	2260B-250-13	2260B-800-4	2231A-30-3	2306-LAN	

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	MSO22	MSO24	MSO44
MS046	MSO54	MSO54B	MSO56	MSO56B	MSO58
MSO58B	MSO58LP	MSO64	MSO66	MS068	MSO64B
MSO66B	MS068B	MSO3012	MSO3014	MSO3032	MSO3034
MSO3052	MSO3054	MSO4012B	MSO4012B-L	MSO4032	MSO4034
MSO4034B	MSO4054	MSO4054B	MSO4104	MSO4104B	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	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

OSCILLOSCOPE (CONTINUED)

TDS2012B	TDS2012C	TDS2014	TDS2014B	TDS2014C	TDS2022
TDS2022B	TDS2022C	TDS2024	TDS2024B	TDS2024C	

DC ELECTRONIC LOAD

2380-120-60	2380J-120-60	2380-500-15	2380J-500-15	2380-500-30	2380J-500-30
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SUPPORTED OPERATING SYSTEMS

KickStart is supported on the following operating systems:

Microsoft® Windows® 11 and Windows 10, 64-bit; KickStart version 2.0.0 and newer

Microsoft Windows 7 and Windows 8; however, KickStart is no longer evaluated 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: 8 GB

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: 16 GB or more

Display resolution: Minimum 1920 × 1080 recommended

Disk drive space recommended: 100 GB 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

NOTE

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**To install KickStart software:**

1. Download the KickStart 2.11.1 installer from tek.com/keithley-kickstart.
2. Unzip the file and run `KickStartSetup.exe`.
3. Follow the installation instructions and accept all default settings.

The required files are installed in the following default location:

C:\Program Files\Keithley Instruments\KickStart.

KickStart version 2.11.1 requires a software license. You can activate a one-time, 30-day free trial with all KickStart applications included. For more information on licenses available for KickStart version 2.11.1, 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
2.11.1	December 2023
2.11.0	August 2023
2.10.1	March 2023
2.10.0	December 2022
2.9.0	July 2022
2.8.0	April 2022
2.7.0	November 2021
2.6.0	September 2021
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