INTRODUCTION

This publication provides a historical summary of the changes made to BESTCOMS*Plus* software.

Revision history information for product firmware and hardware is provided in the *Firmware/Hardware Revision History* document for each product.

This information is provided for confidential use with the mutual understanding that it will not be used in any manner detrimental to the interests of Basler Electric.

The revision history for BESTCOMS*Plus* is provided as follows. Revisions are presented in reverse chronological order.

Software Version and Date	Change
4.03.00, Jan-21	DECS-150: • Added Tracking Comms Loss alarm • Corrected Time per Division range on Analysis view • Improved Security screen views
4.02.00, Aug-20	DECS-450: • Initial release
4.01.00, Dec-19	BE1-11*d*: • Corrected BESTCOMS*Plus* DNP mapping for the 76 element binary points DGC-2020, DGC-2020ES, DGC-2020HD, IEM-2020: • Corrected opening of sender curve files DGC-2020ES: • Added support for firmware version 1.04.00
4.00.02, Oct-19	All Products: • Corrected range check issue when opening settings files with computers using non-English, US numerical formatting DECS-250, DECS-250N, DECS-250E: • Corrected an issue where the AVR and var Setpoints and Pre-Positions could get corrupted when opening a settings file
4.00.01, Oct-19	All Products: • Changed validation to ignore settings that are not applicable for the selected device application version
4.00.00, Sep-19	All Products: • Added settings validation view and improved functionality • Removed support for Windows XP, Vista, 8.0, and 7 pre service pack 1
	DECS-150: • Added support for firmware version 2.04.00
	DGC-2020: • Added new metering pre-alarms for DEF Consumption Incorrect, DEF Quality Poor, DEF Tampering, Torque Limit, and Torque Limit Severe
3.21.01, Jul-19	BE1-11*f,* BE1-11*g,* BE1-11*i,* BE1-11*t*: • Corrected an issue with uploading and downloading 27X and 59X settings
	BE1-11*m*: • Corrected an issue with uploading and downloading 59X settings

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Software Version and Date	Change
	DGC-2020HD: • Corrected an issue with uploading and downloading Generator CT Phase Connection setting
3.21.00, Apr-19	DECS-150: • Added support for firmware version 2.03.00
	DECS-250, DECS-250N: • Added support for firmware version 1.06.00
3.20.00, Feb-19	BE1-11*d*: • Initial release
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Changed to sort the digital points metering in alphabetical order
3.19.00, Jul-18	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for BE1-11 firmware versions 2.11.04 and 3.11.04 • Improved USB communication • Changed to make User Programmable Targets available for firmware version 2.10.00
	DECS-150: • Changed maximum logic levels from 32 to 24 • Changed to prevent default settings from being loaded when PSS style option is enabled offline • Internal and external tracking status is now automatically updated in metering
	DECS-250, DECS-250N: • Improved user experience when changing style number
	DGC-2020: • Updated to support firmware package 1.21.02
	DGC-2020HD: • Added support for firmware version 2.04.03
3.18.01, May-18	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for BE1-11 firmware versions 2.11.03 and 3.11.03
3.18.00, Jan-18	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Corrected an issue preventing BESTCOMS*Plus* from connecting via USB to a BE1-11 holding firmware prior to version 2.07.00
	DECS-150: • Added settings for external tracking, network load sharing, and Modbus • Added Underfrequency Limiter Reset Time setting • Improved frequency response in real-time metering
3.17.01, Jul-17	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Updated USB driver installer for improved Windows 10 compatibility • Corrected issue with settings printout
	DECS-150, DECS-250, DECS-250N, DECS-250E, DGC-2020HD: • Updated USB driver installer to improve Windows 10 compatibility
3.17.00, May-17	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • **Security Patch:** Corrected issue in which Port Access Device Security setup for USB was not being uploaded to units with hardware version AK and later. See the *Security* and BESTCOMS*Plus* Software chapters in the BE1-11 instruction manual. • Added support for BE1-11 firmware version 2.11.01 • Added authentication and encrypted communication

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Software Version and Date	Change
	• Improved target reporting for the 21 and 24 elements • Enabled detection of a unit connected through USB when unsecured access is set to none • Improved communication to devices
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Improved target reporting for the 32 element
	DECS-250, DECS-250N, DECS-250E: • Added support for firmware version 1.05.03
	DGC-2020HD: • Added support for firmware version 2.04.00 • Added a warning prompt when the Start/Stop buttons are clicked • Changed to allow a maximum of 1,024 gates per logic level with a maximum of 1,024 gates allowed per diagram • Changed to disallow commas in logic labels • Changed to allow firmware upload when unsecured access is set to None
3.15.00, Nov-16	DGC-2020HD: • Added support for firmware version 2.03.00 • Added Chinese and Russian language support
3.14.00, Jul-16	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for BE1-11 firmware version 2.10.00 • Corrected duplication of style number options in settings printout
	DECS-150: • Added Chinese and Russian language support • Corrected ability to set invalid underfrequency limiter settings • Improved the Auto Tune function's calculation of PID gains • Corrected the display order of data log records
	DECS-250, DECS-250N, DECS-250E: • Added support for firmware version 1.05.00
	DGC-2020ES: • Updated to support firmware version 1.03.00 • Added several pre-alarm status inputs to logic • Added MTU Combined Red Alarm status to logic • Added Chinese language support
3.12.00, Apr-16	All Products: • Added Windows® 10 compatibility • Changed to prevent Offline Simulator button from disabling after sending settings to the device
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Changed to allow uploading of newer security settings into older devices • Improved 43 switches screen layout
	DECS-250E: • Initial release
	DGC-2020: • Added a Cylinder Cutout Enable Override logic element • Improved handling of flywheel setting when upgrading older settings files • Changed to block Fuel Level Sender settings when the function is set to disabled • Added MTU Combined Red Alarm in the Alarm Status selections in BESTlogicPlus

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Software Version and Date	Change
	• Added several pre-alarms to logic status in BESTlogic*Plus*
3.11.00, Dec-15	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for BE1-11 firmware version 2.09.00 • Added Sequence of Events filtering
	BE1-11*m*: • Added Differential Reporting
	DECS-150: • Corrected the Stop Auto Tune button on the Auto Tuning screen
	DECS-250, DECS-250N: • Added support for firmware version 1.03.02
	DGC-2020HD: • Added support for firmware version 2.02.00 • Added Settings Loader Tool
3.10.00, Oct-15	DECS-150: • Initial release
3.09.00, Apr-15	DGC-2020HD: • Added support for firmware version 1.01.00 • Analysis view updated with support for 6 plots
3.08.02, Mar-15	DGC-2020ES, DGC-2020HD: • Minor regional settings improvement
3.08.00, Feb-15	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added ability to jump to a protection settings screen by clicking on an LED on the Protection Summary screen • Added scaling capability to phasor diagrams in metering • Added file save error message when trying to save an event log with an invalid filename • Improved Summary screen views • Added the degrees symbol to displayed temperature values • Added the ability to enter all zeroes for the gateway address • Added automatic screen resizing of System Summary screen
	BE1-11*g*: • Added Display Units setting to the 40Z settings screen
	DECS-250, DECS-250N: • Added support for firmware version 1.03.00 • Added pre-defined logic schemes with PSS
	DGC-2020ES: • Added a setting to download settings after initial connect • Added file save error message when trying to save an event log with an invalid filename
3.07.03, Jan-15	DECS-250, DECS-250N: • Modified autotuning
3.07.00, Oct-14	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added Conformal Coating to Option 2 in style number • Removed duplicate results in the device discovery list • Changed to allow a comma in the Device ID • Improved prompts to save settings when choosing to close all open views • Changed to hide security settings for the RTD module when opening a settings file

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Software Version and Date	Change
	• Changed to allow the middle mouse button to close the security view • Changed to make BESTlogicPlus status LEDs report all logic errors • Changed to always show primary and secondary units in settings views • Improved analog output selection when an RTD module is connected • Corrected errors when opening a workspace file • Corrected saving of RTD module settings file • Corrected logic compiler errors • Corrected settings save cancel when entering live mode • Corrected display of remote analog inputs when RTD module communication is disabled • Corrected uploading of logic while in live mode • Corrected logic copy/paste errors • Corrected filename mismatch after cancelling login
	DECS-250, DECS-250N: • Improved graphing of UEL curve • Changed UEL Primary Curve screen to allow decimal points when in per unit mode • Removed duplicate results in the device discovery list • Improvements to device directory on Connection screen • Changed to allow a comma in the Device ID • Changed to annunciate a connection failure message when a device is not present on a selected port • Improved prompts to save settings when choosing to close all open views • Changed to allow the middle mouse button to close the security view • Improved display of raw analog input currents • Changed to make BESTlogic*Plus* status LEDs report all logic errors
	DGC-2020, IEM-2020: • Updated to support firmware package 1.19.00 • Added Load Share and Control Diagnostics screens • Changed to allow the Metering Status screen to open before a connection is made • Removed duplicate results in the device discovery list • Improvements to device directory on Connection screen • Changed how the LSM-2020 model number is reported on the Device Info screen • Changed to allow a comma in the Device ID • Changed to annunciate a connection failure message when a device is not present on a selected port • Improved prompts to save settings when choosing to close all open views • Changed to hide security settings for the LSM-2020 when opening a settings file • Changed to allow the middle mouse button to close the security view • Improved display of raw analog input currents • Changed to make BESTlogic*Plus* status LEDs report all logic errors
	DGC-2020ES: • Updated to support firmware version 1.02.00 • Removed duplicate results in the device discovery list • Improvements to device directory on Connection screen • Changed to allow a comma in the Device ID

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Software Version and Date	Change
	• Changed to annunciate a connection failure message when a device is not present on a selected port • Improved prompts to save settings when choosing to close all open views • Changed to allow the middle mouse button to close the security view • Improved display of raw analog input currents • Changed to make BESTlogicPlus status LEDs report all logic errors
	DGC-2020HD: • Removed duplicate results in the device discovery list • Improvements to device directory on Connection screen • Changed to allow a comma in the Device ID • Changed to annunciate a connection failure message when a device is not present on a selected port • Improved prompts to save settings when choosing to close all open views • Changed to allow the middle mouse button to close the security view • Improved display of raw analog input currents • Changed to make BESTlogicPlus status LEDs report all logic errors
3.06.00, Apr-14	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for BE1-11 firmware version 2.08.00 • Added Switch/Pulse drop-down selection on the Virtual Switches Control screen • Changed the Download button to Refresh and added a Toggle Sorting button on the Sequence of Events screen and Security Log screen
	DECS-250, DECS-250N: • Updated to support firmware version 1.02.00
3.05.03, Feb-14	DECS-250N: • Initial release
	DGC-2020HD: • Updated to support firmware version 1.00.02
3.05.02, Jan-14	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Added support for firmware version 2.07.00 • Added a feature to reset the BE1-11 to factory defaults
	BE1-11*g*: • Added primary ohms conversion for 21, 40Z, and 78OOS elements when Display Units is set to Primary
	DECS-250: • Updated to support firmware version 1.01.05
	DGC-2020HD: • Initial release
3.03.03, Jun-13	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*, BE1-11*t*: • Updated PC requirements (See the *BESTCOMSPlus* chapter in the BE1-11 instruction manual for more information.)
	IEM-2020: • Updated to support firmware package version 1.01.04
3.03.00, Mar-13	DGC-2020: • Updated to support firmware package 1.17.02 • Added breaker hardware settings • Added new mains fail transfer screen
	DGC-2020ES: • Initial release
3.02.00, Dec-12	All Products:

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Software Version and Date	Change
	• Added Windows® 8 compatibility
	DGC-2020: • Updated to support firmware package 1.17.00 • Increased number of logic gates per level from 10 to 20
3.01.01, Nov-12	BE1-11*g*: • Added Delta/Wye Compensation Enable setting on the Distance (21) settings screen
	DECS-250: • Added English/Metric unit display
3.00.02, Sep-12	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Added support for BE1-11 firmware version 2.06.00 • Updated the settings compare feature to include Modbus® and DNP differences
	BE1-11*t*: • Initial release
	DECS-250: • Initial release
2.14.00, Jul-12	All Products: • Improved overall functionality
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Improved RTD metering in settings printout
	DGC-2020: • Added Engine Load Percent as a Configurable Protection parameter and Analog Output Selection parameter • Added Closed Transition Override logic element
2.13.01, May-12	DGC-2020: • Updated to support firmware package 1.15.00
2.13.00, Apr-12	IEM-2020: • Updated to support firmware package 1.01.02
2.11.02, Dec-11	All Products: • Added the ability to disable settings download after reconnect or initial connect on the Advanced Properties dialog in the Connection screen • Improved workspace files
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Improved metering and settings file printouts • Added options to print Modbus and DNP points in settings file printouts • Improved Phasor Diagrams in Metering
	DGC-2020: • Added a Cancel button on the Rated Data dialog
2.11.01, Nov-11	All Products: • Enhanced settings file printout
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Added Output Override Alarm settings • Added IRIG Decoding setting on Clock Setup screen • Enhanced voltage settings resolution for 27, 59, and 81 elements
	BE1-11*m*: • Added 1A setting range for Full Load Amps and IEC Hot Curve Current settings of 49TC element • Added Thermal Capacity Reset button on Motor Meter screen

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Software Version and Date	Change
	DGC-2020: • Changed Manual Regeneration setting to use a button instead of a drop-down menu on the ECU Setup screen
2.10.02, Jun-11	All Products: • Added the ability to select what data to view/export from the Preview Metering and Export Metering buttons • Added the ability to save workspace • Added the ability to auto reconnect when connection is lost • Added the ability to close multiple views • Enhanced BESTlogic™*Plus*
	DGC-2020: • Updated to support firmware package version 1.13.04 • Settings for generator protection, battery voltage protection, and configurable protection can now be entered in secondary or per unit values • Added the ability to set IP Address of LSM-2020 through device discovery
2.08.01, Oct-10	All Products: • Improved off-page logic
	BE1-11*f*, BE1-11*g*, BE1-11*i*, BE1-11*m*: • Enhanced IEC 61850 logic inputs and outputs
2.08.00, Aug-10	BE1-11*f*, BE1-11*g*, BE1-11*i*: • Under Settings Explorer, moved Display Units from System Parameters to General Settings • Added Recloser, Breaker Status, and 86 Lockout Status to Metering Explorer under Status • Added Edge Triggers to BESTlogic*Plus* (firmware dependent) • Added Logic Labels to BESTlogic*Plus* (firmware dependent) • Added Auto Export Metering function • Added “P” case option on Style Number screen • Implemented IEC 61850 protocol option
	BE1-11*m*: • Initial release
	DGC-2020: • Updated to support firmware package version 1.11.00
2.07.03, Jun-10	BE1-11*f*, BE1-11*g*, BE1-11*i*: • Added Option 2 to style number for custom builds
	BE1-11*g*: • Added 40Z targets to binary inputs and DNP binary user map
2.07.01, Mar-10	All Products: • Added Windows® 7 64-bit compatibility and removed Windows 2000 compatibility • Added Export Metering
	DGC-2020: • Updated to support firmware package version 1.10.00
2.06.02, Jan-10	BE1-11*f*, BE1-11*g*, BE1-11*i*: • Added Upgrade Style Number to the Communication pull-down menu
	IEM-2020: • Initial release
2.06.01, Dec-09	All Products: • BESTCOMSPlus shell enhancements • Added Windows 7 32-bit compatibility

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Software Version and Date	Change
	BE1-11*f*, BE1-11*g*, BE1-11*i*: • Added Edit button to Analog Metering, Energy screen • Added "0 = No Password Expiration" to Days to Expiration setting on User Name Setup screen • Removed USB COM alarm choice from Alarm Settings screen • Improved Inverse Overcurrent settings screens • Improved Table Curve screens for inverse overcurrent elements • Added 25 Hz frequency option under Nominal Settings on the Power System screen
	DGC-2020: • Added Total Engine Run Time Minutes on Engine and Summary screens in the Metering Explorer
2.05.00, Jul-09	BE1-11*f*, BE1-11*g*, BE1-11*i*: • Updated Basler Electric Device Package Uploader screen • Added timing curve graphs for 27 and 59 functions when using inverse timing mode
	BE1-11*f*: • Added option C) 0.01 - 7.5 Amp (SEF) to Ground CT Option on Style Number screen
	BE1-11*g*: • Changed 40Q pickup range for 1A CTs from 0-6000 to 0-1200
	DGC-2020: • Made a correction to announce a message that logic will not be saved if the maximum number of logic gates on any one level has been exceeded • On the Breaker Management, Breaker Hardware screen, changed the Gen and Mains Breaker Closing Time from 0.1-600 in increments of 0.1 to 0-800 in increments of 5 • Corrected Settings Compare error when there are remote outputs or logic control relay outputs in the logic diagram
2.04.01, May-09	BE1-11*g*, BE1-11*i*: • Initial release
	BE1-11*f*: • Added optional fiber optic Ethernet to General Settings, Style Number screen • Added support for password expiration dates • Added Setting Display Modes setting on System Parameters, Sensing Transformers screen • Added user programmable alarms 9-16 on Alarm Configuration, User Programmable Alarms screen • Added curve selection of A1, B1, C1, D1, E3, and F1 for Protection, Current, Inverse Overcurrent • Added a button for Export Metering • Added an option to upload settings and logic at the same time • Added Target Reset Key and Alarm Reset Key to logic • Added Phase Rotation Reversal • Enhanced General Settings, Device Info screen • Improved Alarm Configuration, Alarms screen • Improved Target Configuration, Targets screen
2.03.01, Feb-09	BE1-11*f*: • Changed time delay increment from 0.01 to 1 for all 27 and 59 elements
	DGC-2020:

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Software Version and Date	Change
	• Added “P” (programmable) curve selection for the 51 function • Improvement to allow spaces in Initializing Message 1 & 2 on General Settings, Front Panel HMI screen in the Settings Explorer • Improved backwards compatibility • Improved Commission Date setting on Run Statistics screen in the Metering Explorer
2.03.00, Dec-08	DGC-2020: • Added support for CEM-2020H • Added Export to File feature • Added settings for Phase Toggle and Initializing Messages on General Settings, Front Panel HMI screen • Re-arranged CAN bus Setup screen and added ECU Setup screen under Communications • Added settings for 51-3 element under Generator Protection, Current • Added setting for Off Mode Cooldown on System Parameters, System Settings screen • Added Remote Module Setup screen under System Parameters • Added Remote LSM Inputs settings and metering screens under Programmable Inputs • Added settings to Bias Control screens for Var/PF control • Added kvar A, B, C, and Total to Power and Summary metering screens • Re-arranged MTU metering screens • Added MTU Status screen and MTU Engine Status screen • Added BESTlogicPlus Input Objects for Configurable Elements, Configurable Protection, Front Panel Buttons, PF Mode Active, Pre Start Input, and Run Input • Added BESTlogicPlus Pre-Alarms for Checksum Fail and CEM Hardware Mismatch • Added BESTlogicPlus Elements for 51-3, COOLSTOPREQ, COOLDOWNREQ, EXTSTARTDEL, PRESTARTOUT, RUNOUTPUT, STARTDELBYP, and STARTOUTPUT • Added Relay Control settings on System Parameters, System Settings screen
2.02.01, Oct-08	BE1-11*f*: • Initial release
2.01.00, May-08	DGC-2020: • Added settings for AEM-2020 • Added settings for Automatic Generator Protection • Added settings for Integrating Reset on 51 function • Added settings for Configurable Protection
2.00.01, Mar-08	DGC-2020: • Added settings for CEM-2020
1.04.01, Nov-07	DGC-2020: • Added settings for LSM-2020
1.03.00, Aug-07	DGC-2020: • Added/Updated screens to support firmware package version 1.03.00 • Added password protection for portions of the programmable logic • Made all status LEDs available as inputs for PLC logic
1.02.00, May-07	DGC-2020: • Added Spanish language support

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Software Version and Date	Change
	• Added Clock Setup screen • Changed layout of several screens
1.01.02, Apr-07	DGC-2020: • Removed International Modem option from Style Chart
1.01.01, Feb-07	DGC-2020: • Added Chinese language support
1.00.07, Nov-06	DGC-2020: • Initial release

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