

PowerLogic™ ADVC3

ADVC3 Firmware A50-19.04 and WSOS 5.16.38 Software

Firmware and Software Release Notes

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Safety Information

Important Information

Read these instructions carefully, and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this documentation or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure.





The addition of this symbol to a "Danger" or "Warning" safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

 DANGER
DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 WARNING
WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 CAUTION
CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

NOTICE
NOTICE is used to address practices not related to physical injury.

Please Note

Electrical equipment should be installed, operated, serviced, and maintained only by qualified personnel. No responsibility is assumed by Schneider Electric for any consequences arising out of the use of this material.

A qualified person is one who has skills and knowledge related to the construction, operation of electrical equipment and its installation, and has received safety training to recognize and avoid the hazards involved.

About the Book

Document Scope

This document provides the version history of ADVC3 Firmware and WSOS Software packages.

The released software is applicable to ADVC3 used with all the switchgear types, including PMSets UR27.

For PMSets UR series reclosers, this release or further should be used, ADVC3 FW A50-19.04 and WSOS 5.16.38.

Verification and Validation

Verification and validation tests were performed on each of the internal release candidates.

Validity Note

This document is valid only for the ADVC3 Firmware version A50-19.04 and WSOS Software Version 5.16.38.

General Cybersecurity Information

In recent years, the growing number of networked machines and production plants has seen a corresponding increase in the potential for cyber threats, such as unauthorized access, data breaches, and operational disruptions. You must, therefore, consider all possible cybersecurity measures to help protect assets and systems against such threats.

To help keep your Schneider Electric products secure and protected, it is in your best interest to implement the cybersecurity best practices as described in the Cybersecurity Best Practices document.

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Environmental Data

For product compliance and environmental information, refer to the Schneider Electric Environmental Data Program.

Online Information

The information contained in this document is likely to be updated at any time. Schneider Electric strongly recommends that you have the most recent and up-to-date version available on www.se.com/ww/en/download/.

The technical specifications of the devices described in the present document also appear online. To access the information online, go to the [Schneider Electric](http://www.se.com) home page.

Related Documents

Title of documentation	Reference number
PowerLogic ADVC Operations Manual	PKR39809-02

To find documents online, visit the [Schneider Electric](http://www.se.com/ww/en/download/) download center (www.se.com/ww/en/download/).

For more details or support, please contact Schneider Electric or local customer support.

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Introduction

PowerLogic™ Advanced Controller (ADVC)

The PowerLogic™ ADVC range is a controller for Automatic Circuit Reclosers (ACRs) and Automatic Sectionalisers (AS).

ACR consists of an ADVC Controller and circuit breaker switchgear connected by an umbilical control cable; designed to interrupt high fault currents.

An AS also consists of a PowerLogic ADVC and a compatible switchgear connected by an umbilical control cable. The switchgear can be either a Load Break Switch (LBS), which is not designed to interrupt high fault currents, or a circuit breaker.

The design features of PowerLogic ADVC are as follows:

- Outdoor pole-mounted use
- Cubicle vents have screens help to prevent vermin entry
- The cubicle door has a seal
- Rain shield helps protect Miniature Circuit Breakers (MCBs) if the cubicle door is open for a short period of time during light rain during maintenance
- All electronic modules and the cubicle itself are IP65 rated
- Battery heater mat can be supplied if required.

Condensation inside the cubicle may occur in certain conditions, such as tropical storms, but it only forms on metal surfaces and is harmless. Water drains out or evaporates through ventilation and self-heating.

Windows Switchgear Operating System (WSOS)

WSOS Software application runs on Microsoft Windows® for management, control, and monitoring of PowerLogic ADVC.

WSOS provides full access to switchgear functions: opening/closing, protection settings and communication parameters through accessing measurement and analytical data.

By using a desktop or a portable PC, engineers can manage many/multiple devices remotely through a communication link or locally through a serial, USB or Ethernet connection.

WSOS provides:

- Local language support
- Advanced controller support
- SCADA communications capture tool
- Controller firmware loading
- Switchgear explorer
- Launch pad
- Switchgear status
- Event log and filtering
- Feature selection page
- Setting pages.

WSOS also supports:

- Online and offline management of all protection settings
- Tripping and Closing of the switchgear and other operator control functions

- Uploading of historical data (for example, event record or demand measurements) to the computer, which can be taken away and processed elsewhere.

Release History

Date	Firmware version	Software version	Comment/Status
November, 2025	A50-19.04	5.16.38	Updated to match with the latest Schneider standards

ADVC3 Firmware Update Policy

Firmware update is recommended in order to benefit from the latest features, enhancements and bug fixes. Use this release note to determine whether an update to the latest version of the ADVC3 firmware is relevant for your application.

NOTE: Only update the firmware to the latest version if your application requires the new features, enhancements, or relevant bug fixes.

Configuration Software

Use the WSOS 5.16.38 software to update the firmware for the ADVC3 system.

ADVC3 Firmware Update

The firmware of the ADVC3 system is delivered in an ADVC3 package. The firmware can be updated by using WSOS.

WSOS Software Update Policy

Software update is recommended to benefit from the latest features, enhancements and potential bug fixes. Use this release note to determine whether an update to the latest version of the WSOS software is relevant for your application.

NOTE: Update the software to the latest version before updating to the new firmware version. Older software versions may not support new features or enhancements.

WSOS Software Update

The WSOS software is provided in an installer executable. To install or update WSOS, run the installer; this will either perform a first-time installation or replace the previous version with the latest one.

Firmware Version A50-19.04

New Features

The new features in this release are listed in the following table:

Main Features	Benefits
Enabling new switchgear: PMSet UR Series	Supports PMSet UR Series (available soon). Refer to UR-series documentation
Linux kernel 4.19 + Cyber security enhancements	Significantly reduces known cybersecurity vulnerabilities
Add Inrush Restraint into 331 Point List	DNP3 mapping list enlarged
Add Pickup Multiplier into 331 Point List	DNP3 mapping list enlarged
Major Bug fixes	
Wrong SEF Angle	Improves protection algorithm
IEC104 Closing Connection	IEC104
Event Flooding (« current is less than... »)	Helps prevent flooding and reduces risk of memory corruption
WSOS - PTCC Parameter Lost	Fixes product selection and retro-compatibility

Bugs fixed

The list of features and bug fixes is detailed in the following table:

Jira DAN	Bugs/Features description	Detected by	Comment
DAN-1056	61850 - AutoRecSt signal state update Issue Summary: During a Reclosing cycle, the signal AutoRecSt should change from 1- ready, 2 - in progress, 3 - successful ,..... However, the signal AutoRecSt is always with value 1 (Ready) even after a complete recycling process	Customer	IEC 61850 Fixed
DAN-1484	ADVC3 - IEC 61850 Configuration file VLAN-ID Issue Summary: When users set a standard VLAN value of 0x001 in the CID file, WSOS uses 12 bits to generate the VLAN address, resulting in 0x001 However, when the VLAN value is changed to 0x00B, WSOS uses 16 bits, resulting in the address 0x000B	Customer	IEC 61850 Fixed
DAN-1602	WSOS - Possibility to enter OCP bar prefix code ADVC3 Issue Summary: WSOS currently does not allow entering OCP barcodes with the ADVC3 (or advc3) prefix because the format only allows such codes beginning with ADVC2 For example, it should be possible to enter the code ADVC3-2222-A	Internal	General Fixed
DAN-1610	The calculated angle for SEF fault in Directional Overcurrent Protection/Detection is wrong for a certain threshold Issue Summary: The angle that is calculated for SEF in Directional Overcurrent Protection/Detection is normally wrong.	Internal	General Fixed

Jira DAN	Bugs/Features description	Detected by	Comment
	<p>The involved protections are: Directional Protection (ACR), Directional Blocking (ACR), Directional Detection (LBS) and Directional Blocking (LBS)</p> <p>This issue normally appears when the SEF fail current is small (15 A or less)</p>		
DAN-1599	<p>WSOS - Error loading firmware when setting text manually</p> <p>Issue Summary:</p> <p>When you manually enter the path of the .adv3 file in the File text box of the ADVC Loader Wizard dialog, clicking the Next button displays the following error message: Error unpacking tar file - Invalid tar magic. The tar file is invalid or corrupted</p> <p>However, the file path, even if correct, is not considered correct by WSOS and the firmware is not downloaded to ADVC3</p> <p>This does work if you search the route by pressing the Browse button and selecting the same .adv3 file</p>	Internal	General Fixed
DAN-1601	<p>WSOS - Invalid Point List link</p> <p>Issue Summary:</p> <p>When you open the Custom Logic Tool window (Customize/Custom Logic Tool/Open menu) and enter a signal database version higher than the latest version, the Open Custom Logic Tool Configuration window appears with the following text:</p> <p>SCADA points introduced after version AXX-X.X will not be available in this version of WSOS. Please refer to the Point List for more information</p> <p>The words Point List always lead to the same file ADVC-PTCL-331.html, regardless of whether the platform is ADVC3, ADVC_LITE, or PTCC</p>	Internal	General Fixed
DAN-1910	<p>IEC 104 Closing TCP Connection</p> <p>Issue Summary:</p> <p>We are sporadically experiencing a freeze of communication on several of U27/ADVC3 with IEC104 communication protocol. The issue is that the CAPE stops communicating correctly with the data concentrator:</p> <ul style="list-style-type: none"> • Spontaneous data is still sent to data concentrator • GI and other commands e.g. Trip/close of the recloser are unsuccessful, not executed (see attached picture for detailed GI sequence) • ADVC responds to the PING • WSOS connection is established and works OK 	Customer	IEC 104 Fixed
DAN-2007	<p>Fault Current DNP3 Analog Value when in Alarm Mode</p> <p>Issue Summary:</p> <p>When in Alarm Mode, after a fault detection, register the Maximum Fault currents into the DNP3 variables, the same way when there is a trip</p>	Internal	DNP3 Fixed
DAN-2077	<p>WSOS - Platform options appear at Product selection</p> <p>Issue Summary:</p> <p>Platform options appear at Product selection. If you select ADVC Controller Range, ADVC Range or PTCC at the Product field, an image with a ? will be shown and it will allow you to continue with the steps of the creation. This issue happens in each of our 3 Platforms</p> <p>After the steps have been completed, no message is shown and the Switchgear file you have just</p>	Internal	UR27 recloser Fixed

Jira DAN	Bugs/Features description	Detected by	Comment
	supposedly created does not appear at Switchgear Collection		
DAN-2240	<p>WSOS - UOF Protection Online Help (ROCOF)</p> <p>Issue Summary:</p> <p>I believe the highlighted word in the image should be replaced by rate of change of the frequency. It does not make sense to compare Frequency (Hz) with Setting rate (Hz/s)</p>	Internal	<p>General</p> <p>Fixed</p>
DAN-3220	WSOS - Removal of "Hybrid Mode" and "TEF" in feature selection	Internal	General
DAN-3269	<p>WSOS - Digital Signature Certificate Fix</p> <p>Issue Summary:</p> <p>Following the cyber security report issued by a client regarding WSOS installer not being signed with a valid certificate, an investigation and fix will be performed in order to correct the situation and be able to sign production releases with a valid certificate</p> <p>Currently both internal and production versions are being signed with a test signature instead of a valid certificate. Internal versions may remain being signed with a test signature, while production versions have to be signed with a valid certificate</p>	Customer	<p>CyberSec</p> <p>Fixed</p>
DAN-2698	<p>ADVC3 - USB FW Load Does Not Work w/ New Naming</p> <p>Issue Summary:</p> <p>Since firmware packages are now named pcom_internal_adv3 and pcom_prod_adv3 instead of pcom_repo, which has been always, apparently the firmware load via USB only works with the legacy naming. ADVC is expecting a package named pcom_repo[...].adv3 and will not work with new naming</p>	Internal	<p>General</p> <p>Fixed</p>
DAN-1910	<p>Issue Summary: WSOS - Check Master IP not working</p> <p>The Check Master IP Address feature from the IEC 60870-5-101/4 IP Validation tab does not properly work</p> <p>Given its description, if the Master device does not have any of the IP addresses specified in the list and the Check Master IP address option is ON, the communications will not work</p> <p>However, it does not work for the latest version since communications still work even when the Master IP address does not match any from the list</p>	Internal	<p>IEC 104</p> <p>Fixed</p>
DAN-1593	<p>Add Inrush Restraint to 331 Point List</p> <p>Issue Summary:</p> <p>Add to 331 point list</p>	Internal	General
DAN-1973	<p>ADVC3 - Batch Reboot</p> <p>Issue Summary:</p> <p>Add feature to allow the user to send reboot messages to a group of controllers</p>	Customer	General
DAN-3627	<p>Event Flooding (« current is less than... »)</p> <p>Issue Summary:</p> <p>Excessive logging of this event can eventually cause Flash memory corruption</p>	Customer	<p>General</p> <p>Fixed</p>

Known Issues

IEC104 has the following issues:

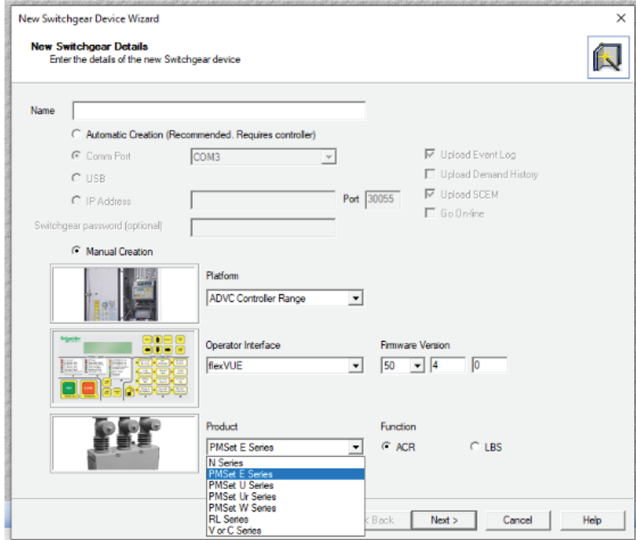
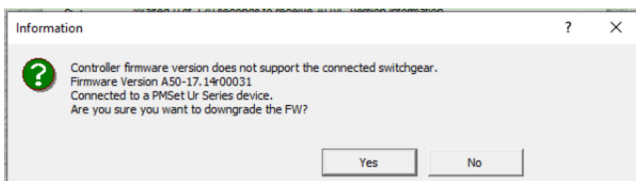
- Connection instability has been reported in version A50-17.14
- Analogue floating points scaling is incorrect, in A50-19.04.

For IEC104 users, we recommend using A50-17.10 and correcting the analogue scaling issue at the SCADA.

Software Version 5.16.38

WSOS User Interface changes

This section details changes to WSOS User Interface.

Jira DAN	Development	Change	Image
DAN-1599	WSOS - Error loading firmware when setting text manually	Users can now enter the firmware path manually without errors	-
DAN-1601	WSOS - Invalid Point List Link	WSOS now links to the correct Point List	-
DAN-2007	Fault Current DNP3 Analog Value when in Alarm Mode	History Logs now display peak current values when Alarm Mode is active	-
DAN-2077	WSOS - Platform options appear at Product selection	Product Selection when creating a file works properly, WSOS helps prevent selection of incompatible combinations of Platform+Controller, Range+Operator, and Interface+Firmware Version	
DAN-2240	WSOS - ROCOF UOF Online Help correction	Changed the wording to be more accurate	-
DAN-2287	WSOS - Online help for PMSet UR Series	WSOS Online Help now includes references to PMSet UR Series	-
DAN-2297	WSOS - Allows to downgrade to a FW where UR Series switchgear is unknown	WSOS now prompts users with a confirmation message if they want to downgrade to a firmware version that does not support UR Series when trying to do it with a CAPE connected to UR Series	
DAN-3220	WSOS - Removal of "Hybrid Mode" and "TEF" in feature selection	WSOS no longer displays TEF, Hybrid Mode selection and other settings	-
DAN-2601	ADVC3 - Pick Up multiplier 331 Point List	Users can now select Pickup Multiplier in the DNP3 Mapping (331 Point List)	-
DAN-1593	ADVC3 - Inrush Restraint 331 Point List	Users can now select Inrush Restraint in the DNP3 Mapping (331 Point List)	-
Multiple	PMSet UR Series	WSOS now displays PMSet UR Series features and related information in different WSOS windows	-

Prerequisites

Operating Systems

WSOS software supports Microsoft Windows® 10 and 11 operating systems.

Software Requirements

The WSOS software does not require any specific software. Everything that is needed is installed through the installer executable.

Hardware Requirements

The following hardware requirements are recommended on the PC to install WSOS software:

Equipment	Minimum Requirement	Recommended Requirement
Processor	Pentium 3	Intel Core 3
RAM	2 GB	4 GB
Free hard disk space on system drive	1 GB	2 GB

Installation and Uninstallation of WSOS

Installation

Installation Preparation

Administrator or equivalent privilege is required to install the WSOS software on PC.

Installation Language

The language of the Installation dialog box and the installed version is derived from the user language setting pre-defined by the operating system.

Uninstallation

Invoking the installation procedure of the installed WSOS version will result in a conventional presentation offering to remove existing setup. It is possible to uninstall the software via other conventional procedures.

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