

Trimble Amtech Software

Quick Guide

Patch One

mep.trimble.co.uk
01908 608833



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Receive the backing of a unique technical support service from the largest team of qualified engineers in the industry who understand your business and your specific needs.

If you don't already benefit from our technical support call us now on 0800 028 28 28 or visit mep.trimble.co.uk

Are you already a member?

If you have any queries please contact our PremierCare Support Team on 01908 608833 or email amtech-support@trimble.com

Activation

To activate your software call 01908 608833.

Training

For information on all our training courses visit the training area of our website at mep.trimble.co.uk/training

Quick Guide

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System Requirements

These specifications refer to the minimum specifications across our range of software applications.

Computer (desktop or laptop)

Minimum PC and system requirements are:

- Intel Core i3 processor (2.0 GHz processor) or equivalent
- 4GB RAM
- 1.5GB free hard disk space
- Mouse
- Monitor: 1024x768 resolution – min 256 colours (recommended 1280x1024)
Recommended screen font size 96 DPI (100%)

Minimum PC and system requirements for Trimble ProDesign 3D are as specified by [AutoDesk REVIT](#)

Operating Systems

The following operating systems (with latest updates applied) are supported:

- Microsoft Windows 7 SP1 Home Premium or above (32 and 64 bit)
- Microsoft Windows 8.1 (all editions excluding RT) or above (32 and 64 bit)
- Microsoft Windows 10 (32 and 64 bit)
- Microsoft Windows Server 2008 and above (FastTest network installation)

Prerequisites

- An NTFS file system must be used (not FAT32)
- Our software cannot be installed to a compressed drive
- Antivirus and firewall security software should be disabled prior to the installation
- The installation process is designed to run locally, not over a network

Installation

Desktop installation

See System Requirements for details of supported versions.
You will need your licence number.

To install from a download:

- Ensure that you are a local machine administrator.
- Close all open applications, including virus checkers, if running, before starting the installation.
- Download the installer using the link provided. Save the file to your PC.
- Double click on the downloaded file to extract the installation files.
- Setup should start automatically.
- Setup will run. Follow on-screen instructions.

To install from a DVD:

- Ensure that you are a local machine administrator.
- Close all open applications, including virus checkers, if running, before starting the installation.
- Insert the Trimble Amtech Software DVD in your disk drive.
- Setup should start automatically. Setup will run from the DVD. Follow on-screen instructions.

Concurrent Licence Users

Installation instructions can be found in the 'Installation Guides' Folder on the installation DVD.

A new licensing key may be required for your server.

Please contact our Activation Department 01908 608833 or Amtech-licensing@trimble.com for further information.

Activating your software

Our software is sold as a single user, single installation licence unless otherwise specified in your licence agreement. The software may be installed and activated on a single computer. Multi-user licence agreements will allow the software to be installed and activated on a specified number of computers.

The software is protected and requires activation before unrestricted use. Before activation there will be full functionality but the message "DEMONSTRATION ONLY" will be printed on all documents.

You will receive reminders to activate the software. However, after 30 days the software must be activated.

How do I activate my software?

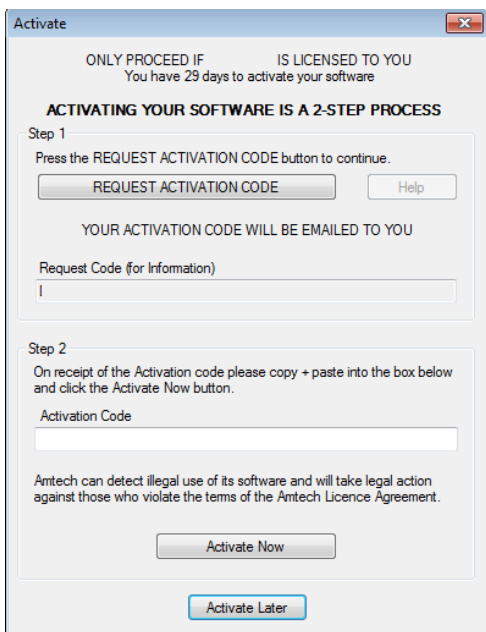
Activating your new software is a two-step process

Step 1 - Send your 'Request Code'

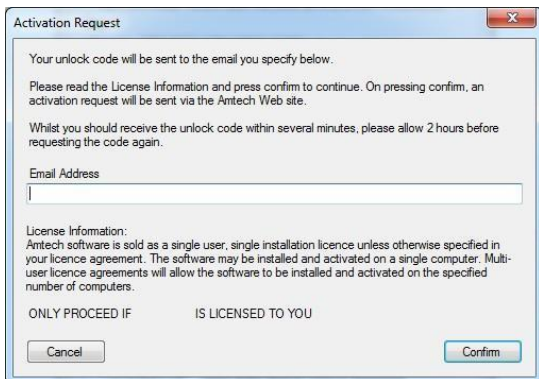
The preferred method of activation is to use the 'REQUEST ACTIVATION CODE' button which sends your 'Request Code' to us electronically. An email auto-responder will check to ensure that your company is the registered purchaser of the software and that there is a user licence available. The auto-responder operates 24 hours a day seven days per week, giving prompt response any time of day.

The Activate dialog box may appear at start-up and various other times indicating how many days you have left.

If the dialog box doesn't appear automatically then it can be accessed by going to the 'Support' menu and selecting 'Activate software'



Click on the 'REQUEST ACTIVATION CODE' button.



On pressing the 'Confirm' button an activation request will be sent via our website.

The email response will be sent to the address entered on the Activation Request dialog.

Users who are unable to activate electronically may call the Activation Hotline on 01908 608833 (Monday to Friday 9am – 5pm). A support representative will undertake the security checks manually and then, if appropriate, authorise and issue an unlock code.

Please note: that manual activation process may take several minutes. We strongly suggest that you use the email method if possible as the process of dictating and recording a long code by phone is open to transcription errors.

Telephone calls are recorded to help prevent fraud.

Step 2 - Receive your 'Activation Code' and activate your software

Check your email inbox. If you have not received your activation code by email after a few minutes then check your email system's Junk/Spam inbox in case the message has been re-directed to there.

When you receive your 'Activation code' you must enter this into the lower box. Use copy and paste functions if possible to eliminate transcription errors.

If you have received your activation code by phone enter it into the lower box. Be sure to type it accurately. The majority of the support problems relating to activation are due to incorrectly recorded or mis-typed activation codes.

Then click on the 'Activate Now' button to complete the process.

Software Upgrade

This booklet is designed to outline the changes to your software. Further details can be found in the software help system and electronic manual. These can be accessed via the software 'Help' menu.

Trimble Installation Ribbon menu Toolbars Home tab Construction tab Calculation tab Reports tab Import/Export tab Glossary

Search

Welcome to the Amtech ProDesign Online Help

The place to find user information, FAQs, and more

About Amtech ProDesign

The ProDesign software gives you the following:

- » Fast, accurate design calculations to BS 7672:2009 (Q235)
- » Produce schematics drawings quickly and easily
- » What if scenario—try different ideas with a click of the mouse
- » Verify existing sites to comply with industry standards
- » Comprehensive range of high quality reports
- » Flexible import and export
- » Save reports and schematics as PDF files

Where Do I Begin?

- » Installing ProDesign
- » Frequently asked questions
- » Glossary
- » Amtech Training
- » Amtech Premier Care
- » End User License Agreement

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Automatic Updates

Our software can automatically check whether a suitable web update is available. If an update is available then the automatic update feature will offer to download and install it for you. Our Automatic Update feature is available in all desktop software products (i.e. non Mobile products).

We recommend checking for updates as soon as you have installed your software. You can initiate an update check at any time by selecting the 'Support' menu, selecting the 'Check for Updates' option and clicking on the 'Check Now' button.

In order to be quickly informed of any appropriate web updates for your software in the future you should ensure that the 'Check for Updates' feature is always enabled.

Availability of Web Updates

In order to be able to receive a web update you must have:

- A current PremierCare agreement for the specific application
- Registered your software on our website
- Internet access

Technical Assistance

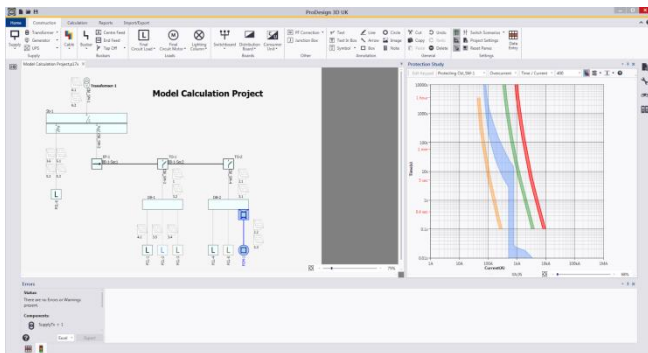
Our Technical Support offers a support tool which allows Support Engineers to view and control users' machines remotely with their permission.

All our applications have a menu option link to the Support web page, which has a direct link to the Assistance login page.

Product Update

Trimble ProDesign

With this 2017 release of Prodesign the program has received an update to its user interface with the protect product, as can be seen in the image below.



ProDesign now allows the user to interact with the Protect (protection study) user-interface more dynamically, allowing for easier visibility and manipulation of your protective devices within the project. This includes moving protective settings within the graph, and allowing for the devices to be changed entirely without the need to go into the Prodesign dialogs. The Grading margin function has also been integrated with the Protect application, so it's possible to see straight away if two devices are suitable for requirement.

Device updates will now be available separately to software updates. This means, if a manufacturer releases a new range of protect / distribution equipment, access is immediate without the need to update software at the same time.

In addition to existing shortcuts, four more have been added to make Prodesign even simpler to use. Users can now press F2 for Calculate project, F3 for Discrimination project, F4 for protection study and F5 to run cable calculation reports.

We have also completed a number of bug fixes and improvements which have been outlined below.

Issue Type	Summary	Fix Version/s	ProDesign	ProDesign ME
Improvements	UPS Calculation and conversion improved		✓	✓
Improvements	Busbar Calculation and database procedure has been updated and improved		✓	✓
Bug	Copy and Paste function has been improved and updated		✓	✓
Improvements	Z Bus Nodes calculation has been updated		✓	✓
Improvements	Data Entry Column for "Connected to" has been implemented		✓	✓
Improvements	Text adds to the cable report identifying if earth fault propagation is active on the cable		✓	✓
Improvements	Data Entry tool has been improved and updated		✓	✓
Improvements	Update to display parameters for a Single phase distribution board		✓	✓
Bug	Generator position causes issues with fault currents		✓	✓
Bug	Board Template updated and improved on single phase components (L2 or L3) phases		✓	✓
Bug	Total connected load to check against the Defined Threshold was ignored if that board connected with Lighting Column		✓	✓

Improvements	Trimble Connect has been updated		✓	✓
Improvements	Improvements made for TPN loads		✓	✓
Improvements	Update 5Core cable database and calculations		✓	✓
Improvements	Motor Starter minimum Cable & CPC size has been improved		✓	✓
Improvements	Improvements made to the Flex Licensing system		✓	✓
Bug	When a default mail client is not present, the file will be saved so the file can be attached to a web base mail client		✓	✓
Improvement	Auto Data Update		✓	✓
Improvement	Update to cascade data for Schneider devices		✓	✓
Improvement	Update to the Earthing Conductor calculator on TT Supply		✓	✓
Improvement	Data entry 'Find in Schematic' option updated and improved		✓	✓
Improvement	Motor starter options in the dialog have been relocated to the Motor load tab		✓	✓
Bug	ProDesign Middle East - Internal cables on ME board not converted correctly		✗	✓
Improvements	ProDesign Middle East - Conversion message is not needed for installation method, as the installation method doesn't change		✗	✓

These changes can be seen by visiting our website:
<http://mep.trimble.co.uk/prodesign>

Content Data update

This document contains a full record of all content revisions contained within the July 2017 Design Suite Content update.

Section 1. Summary

Section 2. Detailed Content Changes

If your application is set to automatically check for data updates, set in the 'Check for Updates' tab under 'Application Settings', then upon startup of the application a check will be made for a new package. If a new package is found, it will automatically be downloaded and installed.

If your application is not set to automatically check for data updates, you can manually check by going to the 'Check for Updates' tab under 'Application Settings' and clicking 'Check Now'.

Section 1	Summary
New Content	<p>Circuit protective devices:</p> <ul style="list-style-type: none">• Siemens products• Schneider data <p>Cables data:</p> <ul style="list-style-type: none">• Ducab products
Modified Content	<p>Circuit protective devices data:</p> <ul style="list-style-type: none">• Dorman Smith products and data• Eaton data• Schneider data <p><i>See Section 2 for details</i></p>

Section 2

Detailed Content Changes

Siemens

- New content - addition of new Siemens ETU320 LI, ETU330 LIG & ETU340 LI (fixed I) electronic trip units on their 3VA2 range of MCCBs. Available in M-55kA, H-85kA, C-110kA and L-150kA breaking capacities.

Schneider

- New content - energy based discrimination data added between Acti9 iC60H MCB and RCBO circuit protective devices.
- Modified content: correction to Acti9 iC60H MCB and RCBO motor ratings.

Ducab

- New content - addition of the following Ducab cables:
- Singlecore Mica 600/1000v
- Standard 950C 180m BS6387 C W & Z 300/500v solid or stranded
- Enhanced BS5839 -BS5266- emergency Ltg BS8519 Cat 1&2
- FlamBICC4 Armoured Power BS6387cwz-BS5839-BS8519-BS7846-BSEN50200
- FlamBICC6 Armoured Power Cat3 BS8491 - BS8519 CP
- Flambicc- AEI MICC BSEN60702-1 Multicore 70C LD bare or LSZH
- BS6724 SWA LSZH
- BSEN50525-3- 41 (6491B)
- BSEN50525-2- 31 (6491X)

Eaton

- Change to the ACB IZMX range, ACB IZMX / IZM now called ACB IZMX/IZM/Ser.NRX.

Dorman Smith

- Modified Modification to the YB1N Range, Type and Protection fields reorganised.

Trimble ProDesign 3D

Trimble ProDesign 3D is a new product offered by Trimble, using the same Calculation engine as ProDesign within the Revit 2016, 2017 and now 2018 Autodesk 3D Environment.

Trimble ProDesign 3D will allow the user to have all the great features of ProDesign within the Revit environment. This includes data, error dialogs, reporting functionality and protect devices behind ProDesign all still calculating in accordance with BS7671.

This version is compatible

For more detail see our website:

<http://mep.trimble.co.uk/prodesign-3d>

Issue Type	Summary	Fix Version/s	ProDesign 3D
Update	Compatible with Revit 2018		✓
Improvements	Improvements made for TPN loads.		✓
Improvements	Update 5Core cable database and calculations		✓
Improvements	Motor Starter minimum CPC size has been improved		✓
Improvements	Improvements made to the Flex Licensing system.		✓
Improvement	Auto Data Update		✓
Improvement	Update to cascade data for Schneider devices		✓
Improvement	Update to the Earthing Conductor calculator on TT Supply		✓

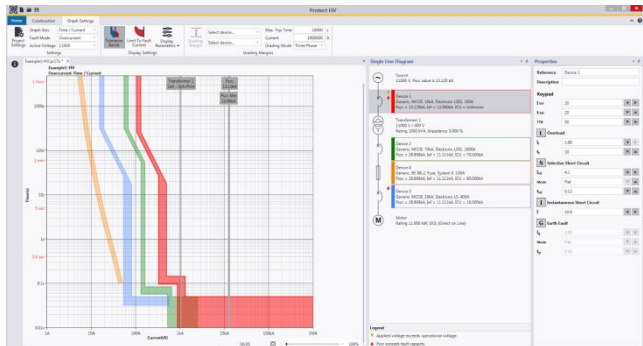
Protect

Protect is so easy to use, you don't need to be a protection expert to use it. The software contains a database with data on thousands of protective devices. This is data direct from, and approved by leading manufacturers so you can be confident in its accuracy. This is particularly important as so many adjustable breakers are being used these days – it is essential to get these set correctly at the outset. Nobody wants to revisit jobs to sort out nuisance tripping that could so easily have been avoided at the design stage.

New features

User Interface

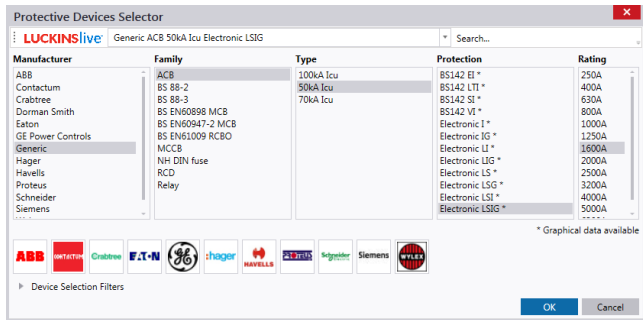
The user interface has been updated to incorporate a 'Ribbon based' system. This allows you to access the functions you need, quickly & easily. Various elements of the new protect application are un-dockable; ideal for users with two screens or for removing areas not in current use. The product now boasts a more graphical look and feel, so it's easier to use and manipulate, but still retains the same great features as before.



New Device Selector

The device selector has been developed to match the ProDesign Device selector. It's now easy to find devices in both applications if required. In addition, device updates will now be available separately from software updates. So, if a manufacturer releases a new range of protect /distribution

equipment, users will have access to this immediately without the additional need to update the software.

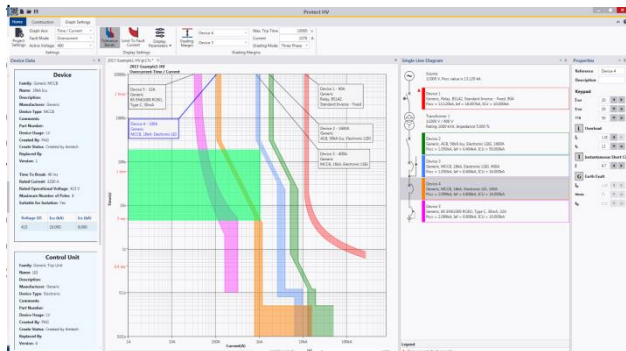


Automatic propagation of fault current from upstream components

Protect users will now benefit from automatic propagation of the fault level from source all the way down to the load. As well as reducing the need to enter data every time, this automatic propagation of fault level also accounts for changes in transformer voltage levels and parallel source feed devices.

Grading margins

A Grading Margin can now be active across the whole product range, enabling a more detailed review of studies between devices. Now, users simply select the two devices and then the grading margin button to review the study. A colour coding system has also been added: Green is adequate disconnection, red is inadequate disconnection and blue is over the time current limits. Yellow means there is no data available between



New transformer dialog (HV only)

The new improved transformer dialog allows for easier inputting of transformer parameters

Transformer

Reference: Transformer 1
Description:

Connections:
FROM: Device 1
TO: Device 2

Details

Comments

Attachments

Winding: Delta-Star (Dy)

Voltage: 11000 / 400 V

Rating: 1000 kVA

Impedance (Z): 5,000 % Override

Transformer Tolerance: 0 %

Add Motor Contribution:

ISTR Current: 0 %
Multiplier: 4 Override
Motor Short Circuit = 4 x 0,000 = 0,000kA

Damage Point: 1,000 s

Inrush Multiplier: 10,000

Primary

Current: 52,486 A
Psc (Line Fault): 1,050 kA Override
Ief (Earth Fault): 0,000 kA

Secondary

Current: 1443,376 A
Psc (Line Fault): 1,050 kA Override
Ief (Earth Fault): 0,404 kA Override
Earth Display: Earth Not Shown

OK Cancel

New Generic breaker Selector (HV Only)

Generic breaker dialogue has been improved for easier data entry of generic breaker associated with Relay devices.

Device

Reference: Device 1
Description:

Connections:
FROM: Source
TO: Transformer 1

Details

Annotation

Parallel Paths

Generic Breaker

Conductor Withstand

Details

Annotation

Comments

Attachments

Generic Breaker Available:

Manufacturer: Generic
Description: Generic

Rated Current: 1000 A

Rated Voltage (V): 11000 V

Number of Poles: 3

Time to Break (ms): 50 ms

Suitable for Isolation:

Device Capacities:

Voltage (V)	Icu (kA)	Ics (kA)
11000	10,000	10,000
400	65,000	65,000

OK Cancel

New Parallel device Selector dialog (HV only)

A new parallel device dialog, together with an improved and simple user Interface, adds parallel supplies with either the same or differing source fault levels for each parallel device.

The screenshot shows the 'Device' dialog box. It has a top section with 'Reference' (Device 1) and 'Description' (empty). Below this is a 'Connections' section with 'FROM Source' and 'TO Transformer 1'. The main area is divided into a left sidebar with 'Details', 'Annotation', 'Parallel Paths', 'Generic Breaker', and 'Conductor Withstand' (expanded), and a main content area. The 'Parallel Mode' is set to 'Parallel Devices' and 'Number In Parallel' is '2'. A 'References' table is shown below.

Reference	Description	Line Fault (Psc)		Earth Fault (Sf)	
		Current (kA)	Override	Current (kA)	Override
Parallel Device 1		13.120		16.007	
Parallel Device 2		13.120	<input type="checkbox"/>	16.007	<input type="checkbox"/>
Total Downstream Fault Current:		26.240		32.014	

Buttons for '?', 'OK', and 'Cancel' are at the bottom.

Improved Motor selector dialog (HV only)

The improved Motor dialog allows for easier inputting of motor parameters.

The screenshot shows the 'Motor' dialog box. It has a top section with 'Reference' (Motor) and 'Description' (empty). The main area is divided into a left sidebar with 'Details', 'Starting Parameters', 'Comments', and 'Attachments', and a main content area. The 'Voltage' is 400 V, 'Rating' is 11.000 kW, 'Power factor (pf)' is 0.880, 'Efficiency' is 0.912, 'Input Current' is 19.783 A, and 'Starting Method' is 'DOL (Direct on Line)'. The 'Phase' is set to 'Three'.

Buttons for '?', 'OK', and 'Cancel' are at the bottom.

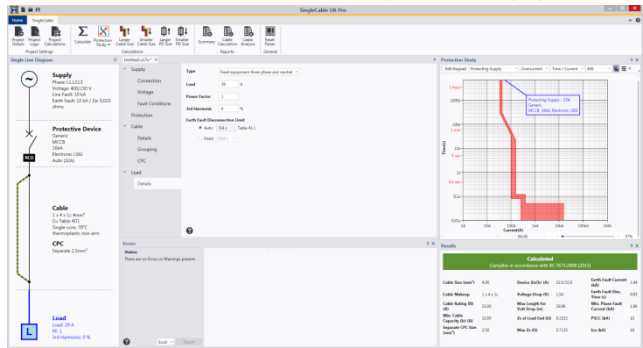
These changes can be seen by visiting our website:
<http://mep.trimble.co.uk/protect>

Single Cable

SingleCable is a cable calculation software that is extremely simple to use and provides results in seconds, whether the cable is a sub-main feeder or final circuit. Once calculated, the program also enables you to look at the results for the next cable size larger or smaller, and the same facility is available for the protective device. This is most useful for looking at 'what if' situations, a luxury not available when doing calculations manually.

The other great new features for single Cable are outlined below:

The new user interface, including the single-line diagram, alongside improved integration with Protect, means Single Cable can greatly improve the efficiency of calculations, allowing users to see the both the device and the circuit as a whole throughout the design phase.



In addition to existing shortcuts, three more have been added to make Single Cable even simpler to use. Users can now press F2 for Calculate project, F4 for protection study and F5 runs the cable calculation report.

Device updates will now be available separately to software updates. This means, if a manufacturer releases a new range of protect / distribution equipment, access is immediate without the need to update software at the same time.

These changes can be seen by visiting our website:
<http://mep.trimble.co.uk/singlecable>

PowerNet

A powerful graphical short circuit analysis program for the calculation of short circuit currents to IEC 60909 and BS 7639. PowerNet deals with fault currents in both High and Low Voltage distribution systems. Quick and easy to use it enables studies to be carried out cost effectively on new and existing systems.

These changes can be seen by visiting our website:

<http://mep.trimble.co.uk/powernet>

For detailed product update please see below.

Issue Type	Summary	Fix Version/s	PowerNet
Improvements	Flex Update		✓

FastTest

You will need your new licence number provided via email. This will be used in the installation process.

Once installation is complete, activation of your FastTest will need to be carried out.

Issue Type	Summary	Fix Version/s	FastTest
Improvements	Error message ('Given Key Not Present in Dictionary') occurs when splitting TP circuits which feed a sub board has been resolved		✓

ProDesign Domestic

ProDesign Domestic is being retired the all packages from 2017 onwards. We will continue to support it and will inform customer when this support will be removed from our services.

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