



Gridscale X™ Advanced
Protection Assessment
**Maintenance & Support
Plan - 2026**

SIEMENS

Overview

Siemens is pleased to offer an annual software maintenance and support (M&S) plan to all licensed users of our Gridscale X Advanced Protection Assessment software, formerly known as PSS®CAPE software. To qualify for the software M&S, you must have a valid PSS®CAPE or Advanced Protection Assessment license agreement for perpetual licenses or a current Advanced Protection Assessment term agreement.

You can obtain software M&S from the Advanced Protection Assessment team by payment of an annual M&S fee and/or via a term license. For your licensed Advanced Protection Assessment software modules, payment of the M&S fee or term license fee entitles you to the following during the M&S year for which you have paid:

- New software releases based on your currently licensed modules.
- Updates and patches to the current version of the program.
- Access to special discounted pricing for Advanced Protection Assessment Users Group Meetings.
- A reasonable amount of support in the installation and operation of the program for the currently supported version of the program and for an appropriate number of engineers based on the number of licenses owned. Excessive support, engineering, or application assistance are not included in the annual maintenance fee but may be purchased from the Advanced Protection Assessment team for an hourly or quoted project rate.

An unsupported perpetual license holder, out of M&S for less than one year, wishing to reinstate their M&S plan will be charged a technology upgrade fee plus the fee for the ensuing year. If the M&S period expiration is a year or more you will be offered a term license agreement.

Your use of any software updates received under M&S is covered by the terms of the original software license agreement or current term agreement.

Standard Product Support Terms

Time of Service

- 08:00 to 17:00 United States Eastern Time (standard or corresponding daylight savings time) or UTC-5

Days of Service

- Service is available Monday through Friday, except for Siemens holidays (list is available upon request)

Submitting Support Requests

- Routine service requests are to be submitted by the customer to Siemens in writing via the Advanced Protection Assessment Customer Support email at Gridscale-X-APA-Support.si@siemens.com or by using our secure online portal, [Freshdesk](#).

The portal provides the ability to create, expedite, manage and track your customer support tickets. Portal access requires setting up an account with your company email address via the [Sign Up With Us](#) button.

Optional Services available exclusively to Advanced Protection Assessment M&S Customers

New Gridscale X Advanced Protection Assessment users are faced with the challenge of how to quickly become productive with the software while at the same time continuing to meet existing workflow and job demands of their departments. Siemens is uniquely poised to help you implement the Advanced Protection Assessment software in your company, whether you are starting to use protection software for the first time or converting from another solution. Our subject matter experts (SMEs) can convert your existing digital data files to an Advanced Protection Assessment database, build a one-line diagram, develop a complete and detailed network and protection model, or perform other implementation tasks, leaving you free to continue with your existing work demands. Details on the implementation and post implementation (post-production) services that Siemens offers, including the benefits for a customer when they engage Siemens to provide these services, are outlined below.

These services are not included in the M&S plan but are available for an additional fee from the Advanced Protection Assessment Professional Services team.

Training – Basic, Advanced, and Refresher

The Siemens team offers courses ranging from two- to three-day refresher classes to a five-day new user program. Our advanced courses are designed for protection engineers who are responsible for maintaining and supporting the Advanced Protection Assessment software for their organization. We offer customized training at your facility, at our training center in Ann Arbor, Michigan or virtually. Some of our most popular class topics include:

- Basic Introduction to Protection
- Advanced Protection Assessment for New Users
- Relay Settings
- Coordination Graphics
- Inverter-based Modeling
- Basic & Advanced Macro Writing
- NERC PRC Standards
- Advanced Protection Assessment-TS Link
- Data Management

Benefits

- Gain insights into better usage of Advanced Protection Assessment, making you more efficient and productive
- Train your new protection engineers in the usage of Advanced Protection Assessment and in the principles of power system protection
- Learn about new features, reporting improvements and modules
- CEU/PDH credits for your engineers to maintain professional certification

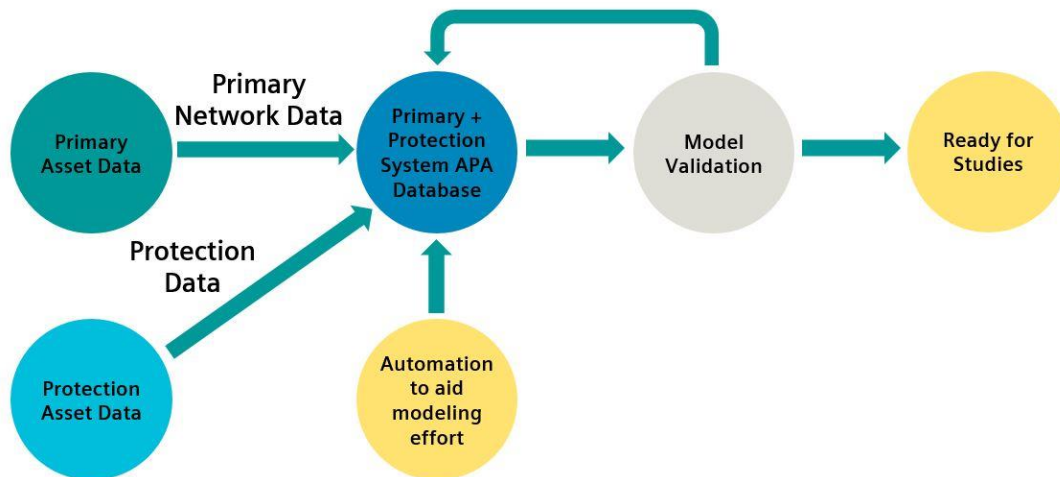
Network and Protection Data Modeling Services

To take full advantage of the extensive capabilities of the Advanced Protection Assessment software, you must keep an accurate and up-to-date combined network and protection system model. Our team can either

build a brand-new model for you from the ground up or update your existing network and protection models and provide you with a one-line diagram, ready for protection studies.

Benefits

- Gain confidence in the accuracy of your network & protection models
- Utilize advanced simulation tools in the software
- Conduct regulatory compliance studies including evaluation of many of the NERC PRC standards



Database Quality Check and Cleanup

The accuracy of short-circuit fault studies, and consequently, the protective relay settings that you develop based on those studies, are dependent on the quality of the data that you store in your Advanced Protection Assessment database.

Siemens offers a database health/quality check service to identify typical primary network and protection model issues in the database that could affect the quality of the studies that you perform. Once the issues are identified and documented, Siemens can clean up the database for you.

Additionally, Siemens has the expertise to align and merge different databases together. For example, our team can update your current database with a newer representation of the external system model or merge multiple Advanced Protection Assessment databases together (typically from different departments) to create a single, unified database.

Benefits

- Gain confidence in the accuracy of your network and protection models
- Trust the results of the short-circuit and protection simulation studies
- Prove the accuracy of the model to regulatory auditors using documentation from the quality check

Relay Settings Macro Development

A relay settings macro in Gridscale X Advanced Protection Assessment is an automation function written in the CAPE User Programming Language (CUPL). Such a macro embodies common system protection standards such as the IEEE C37.113 1999, and a utility's own philosophy for calculating protection settings. When applied on the system model, this macro will automatically and systematically determine the settings for your protective relays.

Settings so calculated can be used for further sensitivity and selectivity studies. After validation, they can be pushed back to the Advanced Protection Assessment database for further exchange with protection asset management and relay vendor setting software (via files).

Benefits

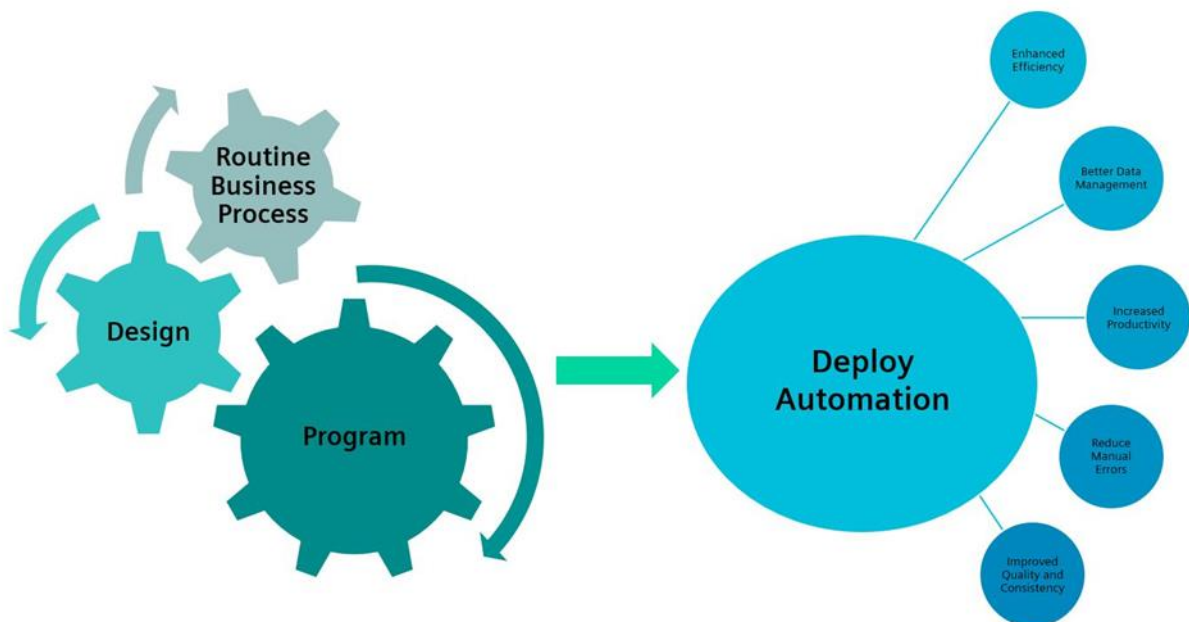
- Systematic and automated approach to relay settings calculations removes manual effort on the part of utility protection engineers to run the required studies
- Reduce the chances of human errors in calculations
- Extensive documentation serves as a detailed audit trail for future needs
- Documentation can be used to show compliance with mandatory regulatory requirements

Automation Support

While Advanced Protection Assessment includes a large variety of macros to perform many different tasks, users may need to customize a macro to provide a specific level of detail or to offer some additional flexibility beyond what is already provided. The Advanced Protection Assessment team engineers have developed custom macros for clients from the most simplistic to the complex. Next time you have a project and feel you would benefit from a custom macro, contact Siemens for a proposal.

Benefits

- Obtain Siemens SME advice in identifying your processes that could benefit from automation
- Utilize Siemens SMEs to develop automations to make you more productive and efficient
- Obtain training for your engineers with programming skills to develop automation



Relay Modeling

Advanced Protection Assessment includes more than 7,200 manufacturer-specific relay, recloser, and fuse models created by our engineers and protection experts. While we pride ourselves in having the only protection simulation software program with such an extensive library of manufacturer-specific models, we realize that new protective relays are being developed and released every day. The Advanced Protection

Assessment team models those relays that we determine are of greatest interest to users as determined through online communications with our customers.

For Advanced Protection Assessment users who require a specific model before a fixed deadline or wish to add customized features to a model, the Advanced Protection Assessment team offers customized relay modeling for a fee. Whether it is a unique relay model used in your region of the world, or you require access to specific functions or protection features in a relay model, our engineers can produce a unique model to fit your specific requirements. Depending on the complexity of the model and the current project schedule, relay models may take from as little as one to three weeks for a simple electromechanical model to two to three months for complex digital relay models.

Regulatory Compliance Reporting (NERC PRC Standards) – North America only

The Siemens team can conduct studies and provide you with reports covering a variety of regulatory compliance standards such as the protection-related standards currently imposed by NERC. The Advanced Protection Assessment software supports:

- PRC-002-2 Identifying Required BES Buses for Events Recording (SER) and Fault Recording (FR) Data
- PRC-019-1 Coordination of Generator Voltage Regulator Controls with Unit Capabilities and Protection
- PRC-023-2 Transmission Relay Loadability
- PRC-024-2 Generator Frequency and Voltage Protective Relay Settings
- PRC-025-1 Generator Relay Loadability
- PRC-026-1 Stable Power Swing Relay Loadability

Outside North America, these standards may be utilized to evaluate the reliability of your protection system.

Benefits

- Clean up your Advanced Protection Assessment network and protection model (separate effort)
- Relieve protection engineers in your team from the tedium of performing the NERC PRC compliance studies
- Utilize the reports created by Siemens to prepare for NERC audits
- Evaluate the reliability of your protection system

System Reliability - outside North America

The Siemens team can conduct studies and provide you with reports covering a variety of system reliability and analysis including:

- System Protection Coordination
- Identifying Required BES Buses for Events Recording (SER) and Fault Recording (FR) Data
- Coordination of Generator Voltage Regulator Controls with Unit Capabilities and Protection
- Transmission Relay Loadability
- Generator Frequency and Voltage Protective Relay Settings
- Generator Relay Loadability

- Stable Power Swing Relay Loadability
- Protection System Coordination for Performance During Faults

A detailed Advanced Protection Assessment network model, including protection, is required for Siemens to conduct these studies. If you do not have a fully detailed network model, our subject matter experts can also prepare the network model.

Wide Area Coordination Study Reviews

The Siemens team revolutionized the simulation capabilities available to the protection industry when it developed the Wide Area Coordination Review tool for its users. The first wide area coordination study using the Advanced Protection Assessment software (formerly PSS®CAPE) was conducted in 2006 in cooperation with Red Eléctrica de España (REE) in Spain. Since that time, we have conducted or supported studies for many utilities around the world, and we are ready to support your needs as well. The Siemens team provided technical support, including initial development of the macro that oversees the simulations and generates the reports. Of the 2,400 scenarios examined, 16% were found to have coordination problems for which REE was responsible. This number was reduced to 1% through follow-up to the study. Since that time, the Advanced Protection Assessment team has conducted or supported studies for many utilities around the world.

Benefits

- Clean up your Advanced Protection Assessment network and protection model (separate fee, refer to section on Database Quality Check and Cleanup)
- Relieve protection engineers in your team from the tedium of performing the wide-area coordination studies
- Utilize the PRC-027 reports created by Siemens (in the Compliance Module) to standards guidelines to prepare for NERC audits (North America only)

What is not included in the M&S Plan?

Support for Older Versions of the Software

The Advanced Protection Assessment team supports only the current major version of the software. As all M&S customers have access to the updates for major releases, it is expected that customers update their Advanced Protection Assessment software at minimum on a quarterly basis. Software updates for Advanced Protection Assessment occur on average every 4 to 6 weeks and include not only patches but new enhancements such as new relay models and updates to existing relay models.

Emergency or After-Hours Work

Emergency services or work after hours are not included in the standard Advanced Protection Assessment M&S plan. If these services are required, these would be offered on a Time and Materials fee basis of 1.5 times the then current Advanced Protection Assessment Team Hourly Labor Rate.

Contact

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