

The Adaptricity Product Range

Adaptricity.Plan Adaptricity.Sim Adaptricity.Mon Adaptricity.Connect Adaptricity.PQ



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The journey of grid planning to grid transparency

The structure of electricity grids is becoming increasingly complex and requires efficient grid planning tools.

We offer tailor-made solutions on multiple interfaces. Our cloud-based grid analytics platform enables distribution system operators to better understand, plan, and operate their power grid infrastructure using data-driven grid analytics.









Challenges in grid planning

The future with our software solutions



Complex

Even specialists have a hard time: with conventional grid planning software it is easy to get lost in menus and settings. This leads to uncertainties and delays in the planning process.



Isolated

Once saved in GIS, the manual transfer into the calculation software or the transfer of results can cause inconsistencies and time-consuming errors.



In the Past

Conventional software is often already outdated when you purchase it. Expensive updates and non-transparent modules force customers to make hasty decisions without having time to consider whether they really fulfil their needs.



Questions

Without a manual, most users who do not use their grid planning program every day struggle to navigate the software. Professional assistance from a support team is either non-existent or is only available at additional cost.



Easy

Our tools are self-explanatory out-of-the-box solutions immediately ready for operation. You do not need to spend time on lengthy configuration processes or training sessions.



Integrated

Manage the grid model in one place: your GIS. Interfaces ensure you are always working with the most current data. You can also automate grid connection requests directly in the GIS and run Adaptricity.Plan invisibly in the background.



State-of-the-art

Thanks to cutting-edge Cloud technology, you can work from anywhere with the latest software. You profit from continuing advancements in technology and constant compliance with new regulatory requirements.



Answers

Data is input by following an intuitive process. Users can focus on answering specific technical questions and are provided with direct support and assistance on the displayed screen by mouse-click.



Professional grid planning with Adaptricity.Plan

.simple .user-friendly .efficient



Scan here to see more.

Adaptricity.Plan

The structure of electricity grids is becoming increasingly complex and requires efficient grid planning processes. Adaptricity.Plan is your starting point towards more intelligent and efficient grid planning.



Simple

Highly intuitive and ready to use out-of-the-box. No configuration required, and no need for long introduction and training sessions.



User-friendly

Run your grid model from a single location – your GIS. Thanks to data interfaces and import functions you will always be working with the latest grid data.

С С

Efficient

End-to-end processes save time and resources. Connection requests can be set up directly in GIS, leading calculations to be run in the background.

Adaptricity.Plan - Explained

Adaptricity.Plan, the foundation of our product range, offers a variety of features that can be immediately employed in day-to-day grid planning activities. Manage your grid models directly in the software or import it using any of a wide variety of grid importers.

As soon as your grid model is uploaded, everything else becomes quick and easy: All calculations in the grid model - power flow, short-circuit, grid reinforcement, or connection requests - are a single click away.

- Comprehensive grid model editor with schematic and map-based display.
- Basic functions for power flow and shortcircuit calculations with different algorithms.
- Connection requests (according to DACHCZ or VDE application rules) and grid reinforcements.
- Protection devices in medium and low-voltage networks, with fuses as well as definite-time overcurrent protection and distance protection.
- Calculation of the hosting capacity for new generation or loads.
- Grid stress test for current or future scenarios (Monte-Carlo simulation).



Adaptricity.Plan: How it works

Status Tracking

Distinguish between requests that have been submitted, approved, or implemented.

*

Pr-

1. Grid

Select the grid you want to work on.

D-A-CH-CZ Connection Request

General o

Device parameters

Bus 10 (10)

Approve E

2. New request

Start the evaluation of the connection request.

3. Connection point

Click on your connection in the grid to select it.

4. Device parameters

Transfer the device parameters from the connection request.

5. Evaluate your connection request

You can evaluate your connection request here.

6. Analysis

Results are calculated within seconds and can be exported as reports.



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Display options

Show or hide labels and visualisations.

Menu navigation

All essential functions are accessible with two clicks.

Grid simulation

Choose between GIS modelling on the map and schematic diagrams.

At a glance

Simple colour system for analysis purposes.

Help and support

Detailed assistance and immediate access to the Adaptricity support team.

Teams

Manage your team and assign user authorisations and permissions.

Actions and recommendations

Get explanations, comments, and recommendations next to the results.

Power flow calculation

Methodology

• Calculation of voltage magnitudes, voltage angles, power flows and losses in the grid by means of various algorithms (e.g., Newton-Raphson, Fast Decoupled Newton-Raphson, Backward/Forward Sweeping).

Advantages

- Calculation at the push of a button no configuration necessary.
- Automatic selection of the best possible algorithm.
- · Can include network reinforcements and connection requests in the calculation.



Stress test and future scenarios & DACHCZ connection requests

Stress test and future scenarios

Methodology

- Power flow calculation with various snapshots.
- Stochastic addition of loads and generators enables simulation of future scenarios (Monte-Carlo approach).

Advantages

- Evaluate the operational limits of the load and generation cases with one click.
- Run a comprehensive Monte-Carlo grid study in seconds, with minimal configuration.

Connection requests according to DACHCZ

Methodology

- Evaluation of connection requests according to D-A-CH-CZ or VDE application rules (voltage variations, flicker, harmonics).
- Calculation of voltage increase using approximation formulas or difference power flow.

Advantages

- Quick and easy configuration of the connection request.
- Evaluation with one click.
- Easy export of PDF report.





Short-circuit calculation

Methodology

- Calculation of short-circuit quantities for short-circuits at all nodes of the grid (traversal or nodal method) according to VDE 0102 / EN 60909.
- Calculation of the resulting branch currents.

Advantages

- Comprehensive short-circuit calculation at the push of a button, with no complex configuration of short-circuit locations required.
- Visualisation displayed directly on the grid topology.

Grid reinforcement & protection calculation

Grid reinforcement

Methodology

- Changes in the grid model (exchange/expansion of components) and storage are defined as grid reinforcement.
- Cost factors are allocated.
- The results are presented along with a comparison of multiple options.

Advantages

- Flexible configuration of grid reinforcements including SmartGrid options such as voltage regulators and on-load tap-changing transformers.
- A technical and economic comparison of all options enables optimal decision-making.
- Grid reinforcement can be incorporated in connection requests and other calculations.







Protection calculation

Methodology

- Modelling of fuses, definite-time overcurrent protection and distance-protection devices.
- Comprehensive switch-off calculation with shortcircuits at all grid nodes, and identification of branch currents.
- Display of switch-off times and comparison with limit values (tabular and graphic).
- Selectivity diagrams and stage plans with a click.

Advantages

- Quick evaluation of switch-off conditions, with very little manual configuration.
- Meaningful, informative diagrams and visualisations.
- Reliable detection of required actions in the protection configuration.



Specifications

Infrastructure			
Server location	Germany, Switzerland, other locations may be possible upon request		
Data transfer	SSL-encrypted data transfer between server and user interface		
Login	Two levels: Instance login by HTTP BasicAuth	n; individual user login	
Backup cycle	Daily, one-week retention time		
Product specifications			
Supported VDE (German Association for Electrical, Electronic & Information Tech- nologies) application regulations	VDE AR-N 4100, 4105, 4110 (2018)		
Short-circuit calculation method	EN 60909-0 (VDE 0102)		
Load flow calculation method	Newton-Raphson, Fast Decoupled Power Flo iteration)	w, sweeping algorithm (voltage /current	
Web interface	REST-API, format for data transfer: JSON		
Integrated grid model interfaces	Native XML format, UCTE, Matpower, PSS/E,	IEEE Common Data Format	
Grid model interfaces with previous initial project	PowerFactory, ENTSO-E CIM, CDE, GEONIS, LIDS7, AutoDesk Map3D, G!NIUS (upgraded continuously)		
Grid element database	Cable, transformer, and fuse data (descriptive and electrical parameters)		
Version control	Versioning of selected data models		
Documentation	Comprehensive support integrated into the software		
Supported browsers	Optimised for chromium-based browsers (Chrome, Iron); additionally Edge		
Languages available	German, English, Spanish		
Licenses			
	Enterprise license	Individual license	
Maximum number of teams	50	1	
Maximum number of users	500 1		
Create new users/teams	yes no		
Admin interface	yes no		
Service			
Customised development	Possible on request		
Response time for support requests	Within one business day		
Software updates	Typically every 7 days		
Development cycle	Larger software updates of the Adaptricity platform are generally released every 10 weeks		

fast installation, immediate benefits -Adaptricity.Plan

Adaptricity.Plan

Instant availability,

Time-series based grid analysis and planning with Adaptricity.Sim

.dynamic .data-driven .smart



Scan here to see more.

Adaptricity.Sim

Grid planning and operation will increasingly demand a flexible planning and simulation environment that allows for time-series-based simulations of active distribution grids. Adaptricity.Sim, our cloud-based tool offers a unique functionality and intuitive usability.



Dynamic

Our highly efficient time-series simulation engine offers a variety of algorithms. Dynamic systems can be simulated enabling flexible grid planning.

Data-driven

The integration of different data sources provides answers to complex questions and guarantees that you are always working with the most up-to-date data.

Smart Bup para

Run parallel simulations, and benefit from the automatic control of simulations via our web interface. Stay on track with straightforward evaluations tailored to your grid analytics needs.

Adaptricity.Sim - Explained

Adaptricity.Sim is tailored to detailed analyses of the distribution grid based on time-series simulations with real measurement data. A sophisticated prosumer model allows the new energy world to be realistically represented in the grid simulator: Households own not only electricity-consuming devices, but also generators and decentralised battery storage systems. Self-consumption tariffs can change customers' electricity purchasing behaviour. Intelligent grid resources, such as voltage regulators and controllable local grid transformers, stabilise the grid. Even large thermal storage systems will provide flexibility for the grid via power-to-heat applications. With Adaptricity.Sim, you map all effects in a digital twin and get detailed insights into the operational behaviour of future power grids.

- Use the same grid model as with Adaptricity.Plan.
- Highly efficient time-series simulation engine.
- Full flexibility to configure all models including dynamic systems for storage simulation.
- Large simulations run in the background without the need for user interaction.
- Simulation of ripple control systems using time tables.



Time-series based grid simulation studies

Methodology

- Linking the grid model with time-series and performing a power flow calculation in each time-step.
- Numerical calculation of storage models (e.g., batteries) as part of grid simulations.

Advantages

- Detailed reports on the utilisation of grid components, as well as the frequency and the duration of operational violations.
- Easily simulate measures to eliminate operational violations, including the integration of SmartGrid technologies.



Time-series based connection requests

Methodology

- Generation of a base-case simulation, representing the status quo of the grid.
- Addition of a new installation with defined time-series.
- Time-series simulation of the grid with and without the new installation, as well as a comparison of the results and evaluation of the connection request.

Advantages

- Simple evaluation of connection requests based on existing time-series simulations, with intuitive user guidance.
- Simultaneity is taken into account, allowing for less conservative grid assessments, and helping to avoid unnecessary grid upgrades.



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Battery simulations

Methodology

- Simulation of a battery storage model as part of the time-series based connection request.
- Assistant makes suggestions for battery sizing and placement.
- Result comparison with and without battery storage unit.

Advantages

- Possibility to plan additional measures for grid integration of new generation plants.
- Low effort for manual configuration, quick testing, as well as possible iteration of battery placement and dimensioning.

Adaptricity.Sim



Specifications

Infrastructure			
Server location	Germany, Switzerland, other locations may be possible on request		
Data transfer	SSL-encrypted data transfer between server and user interface		
Login	Two levels: Instance login by HTTP BasicAuth; individual user login		
Backup cycle	Daily, retention time 1 week		
Product specifications			
Simulation methodology	Time series simulation over several voltage	levels	
Grid size	Max. 10,000 connection points. Larger grids	can be split automatically.	
Measurement data	Consideration of smart meter and transform	er measurements	
Profiles	Unmeasured nodes can be taken into accou	nt using BDEW profiles	
What-if analysis	Simulation of grid model variations / grid ex	pansions	
Display of results	Display of various result variables using det	ailed graphics	
Results	Line and transformer loading, current and ve	oltage curves, grid losses	
Grid violations	Grid violations with user-defined limit values are highlighted in color and listed in a table		
Report	Dashboards with custom graphics		
Data import methods	REST-API or file based via custom data import pipeline		
Automatic data update	Daily, user-defined		
Web interface	REST-API, transmission format: JSON, XML		
Integrated grid model interfaces	Native XML format, UCTE, Matpower, PSS/E, IEEE Common Data Format		
Grid model interfaces with previous initial project	PowerFactory, ENTSO-E CIM, CDE, GEONIS, LIDS7, AutoDesk Map3D, G!NIUS (upgraded continuously)		
Version control	Versioning of grids and selected data model	s	
Documentation	Extensive context-sensitive help within the software		
Supported browsers	Optimised for chromium-based browsers (Chrome, Iron); additionally Edge		
Supported languages	German, English, Spanish		
Licenses			
	Company license	Single user license	
Maximum number of teams	50	1	
Maximum number of users	500 1		
Create new users/teams	yes no		
Admin interface	yes no		
Service			
Customised development	Possible on request		
Response time for support requests	Within one business day		
Software updates	Typically every 7 days		
Development cycle	Larger software updates of the Adaptricity platform are generally released every 10 weeks		

Up-to-date data usage, parallel simulations, automatic control -Adaptricity.Sim Adaptricity.Sim

Continuous distribution grid monitoring with Adaptricity.Mon

.automated .detailed .flexible



Scan here to see an Adaptricity.Mon demo.

Adaptricity.Mon

Continuous, detailed monitoring of the distribution grid, i.e., the monitoring of grid status and grid utilisation on the medium and low-voltage level, allows comprehensive grid assessment in real-time. Adaptricity.Mon uses extensive data sets from smart metering systems and continuously runs detailed monitoring of the distribution grid, i.e. monitoring of grid status and grid utilisation on the medium and low-voltage level, resulting in comprehensive grid assessment in real-time.

O

Automated

Fully automated data updates make real-time distribution grid monitoring possible. All essential information is captured securely and updated daily.

Detailed



Flexible

When updating your grid model (or other data) a re-simulation is run, fully automatically, giving you the flexibility you need for comprehensive grid monitoring.

Adaptricity.Mon - Explained

Adaptricity.Mon provides comprehensive grid monitoring through the use of smart meters and substation measurement equipment. The visualisation and evaluation of measurement data helps you detect operational violations and allows you to spot negative trends in your grid. Since all measurement data is linked to a grid model, power flow calculations can be made for each time-step, you will receive accurate information about the grid's operational state, i.e., voltages and line loadings, at least every 15 minutes, completely automatically.

- Use the same grid model as with Adaptricity.Plan.
- Simulation-supported grid monitoring allows complete and comprehensive grid transparency.
- Fully automated data update (e.g., using REST-API).
- Fully automated re-simulation. Input data runs an update on a daily basis.

We provide grid monitoring with a focus on modern, in-depth data visualisation, offering



Daily check-up of the complete distribution grid

Methodology

- Cyclical import of smart meter data and measurements via interfaces, power flow simulation carried out in every time-step.
- Grid-element-wise visualisation of the power flow results (component loading, voltage bands).
- Navigation through the result data (temporal and spatial components).



Advantages

- Complete overview of the low-voltage level through aggregated representation of the transformer circuits.
- Prompt identification of problem points in the grid, where action is required (e.g., resource usage).
- Detailed time-series information enables root cause analysis of problems.



Automatic integration of all available data and measurements from your distribution grid in Adaptricity.Mon

Fully automated and seamless via API connector



Specifications

Infrastructure				
Server location	Germany, Switzerland, other locations may be possible on request			
Data transfer	SSL-encrypted data transfer between server and user interface			
Login	Two login levels: Instance login through HTTP BasicAuth; individua			
Backup cycle	Daily, retention time 1 week			
Product specifications				
Grid data update	Automatic data import every 24 hours via RI	EST interface		
Simulation	Automatic simulation of the new grid data e	every 24 hours		
Grid adjustments	Visualization of grid changes over the past	24 hours		
Static grid analysis	Extraction of grid loading at user-defined po	oints in time for static		
Grid size	Max. 10,000 connection points. Large grids o	an be split automatica		
Measurement data	Consideration of smart meter and transform	ner measurements		
What-if analysis	Simulation of grid model variations / grid ex	pansions		
Display of results	Display of various result variables using det	ailed graphics		
Results	Line and transformer loading, current and v	oltage curves, grid loss		
Grid violations	Grid violations with user-defined limit value table	Grid violations with user-defined limit values are highlighted in co table		
Report	Dashboards with custom graphics			
Data import methods	REST-API or file based via custom data impo	REST-API or file based via custom data import pipeline		
Automatic data update	Daily, user-defined	Daily, user-defined		
Web interface	REST-API, transmission format: JSON			
Supported grid model formats	Native XML format, UCTE, Matpower, PSS/E,	Native XML format, UCTE, Matpower, PSS/E, IEEE common data for		
Supported grid model formats with previous initialization project	PowerFactory, ENTSO-E CIM, CDE, GEONIS, LI based format via customized data import pi	PowerFactory, ENTSO-E CIM, CDE, GEONIS, LIDS7, AutoDesk Map3D, based format via customized data import pipeline		
Version control	Versioning of selected data models			
Documentation	Extensive context-sensitive help within the	software		
Supported browsers	Optimised for chromium-based browsers (Cl	nrome, Iron); additiona		
Supported languages	German, English, Spanish			
Licenses				
	Enterprise license	Individu		
Maximum number of teams	50			
Maximum number of users	500			
Create new users/teams	yes			
Admin interface	yes			
Services				
Customised developments	Possible on request			
Response time for support requests	Within one business day			
Software updates	Typically every 7 days			
Development cycle	Larger software updates of the Adaptricity platform are generally released every 10 weeks			

Automated updates, data visualisation, real-time monitoring - Adaptricity.Mon

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Automated connection requests with **Adaptricity.Connect**

.simple .user-friendly .efficient



Scan here to see more

Adaptricity.Connect

Adaptricity.Connect allows you to directly involve your customers in the planning process, saving time and effort for both of you.



Simple

Enables an initial (non-binding) evaluation of connection requests through an easy-to-use interface, and simple forwarding of definitive connection requests.

User friendly

Comprehensive configuration options offer fast integration into company workflows. Easily adaptable to the existing corporate design of the grid operator.

Efficient

End-to-end processes save you time and resources in the registration and evaluation process - connection requests are registered directly in your GIS.

Adaptricity.Connect - Explained

With our newest product, Adaptricity.Connect, your end-customers evaluate their connection requests themselves (provisionally and without obligation) taking part of the work out of your hands. Based on a pre-calculated hosting capacity per node, our software quickly determines which grid node would be suitable for a new installation at a given location. This means the grid planner can immediately rule out expensive options, and submit a definitive connection request that has been pre-tested and has thus a greater chance of being implemented cost-effectively. The customer benefits from instant feedback, and the grid planning department benefits from a lower workload, thanks to the reduced number of requests.

- Initial (non-binding) evaluation of connection requests via an easy-to-use interface.
- Can be used in conjunction with Adaptricity.Plan or as a stand-alone (in which case the grid operator must provide hosting capacity values).
- Visual design of the interface can be easily adapted to the corporate design of the grid operator and a multitude of options allow for easy integration into your workflow.
- The definitive connection request is forwarded to Adaptricity.Plan.



Benefits

For the DSO

Process improvement

- Streamlined digital connection request evaluation.
- Optimal connection option by the end customer.

Economic saving

- This creates operational savings in the form of saved engineering time.
- Investment savings thanks to optimal network expansion.

For the end customer

Process improvement

- User friendly.
- Fast response time from the utility.
- Transparency: detailed overview about the available request options (feasibility and cost of the connection).

Economic saving

- Faster project paybacks thanks to faster permission and completion of connection.
- Economic savings thanks to the possibility of selecting the cost-optimal connection option.

Modular and flexible solution

Adaptricity.Connect

- Keep the legacy grid calculation tools. Small change in the business processes.
- Faster integration of Adaptricity.Connect in the current business process.
- Lightweight decisional process to adopt Adaptricity.Connect (legacy systems remain).



WebApp

Anschlusspunkte für Erneuerbare ermitteln:	ADAPRICITY
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- First, preliminary automated connection request assessment via an intuitive GUI.
- Adaptricity.Connect WebApp can be used standalone (with grid operator providing hosting capacity data) or in combination with Adaptricity.Plan as Adaptricity.Connect Pro.
- Adaptricity.Connect WebApp can be styled in the customer's corporate design and provides great flexibility for including customer-specific work flows.

Planning tool

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9	Bus 34	Bus 34 (automatic upg	grade]	76	2,776.22	
Lat.	Bas 36	Bus 36 (automatic upp	grade]	78	2,837.09	
(ani	Bus 35	Bus 35 [automatic upg	grade]	.90	3,207.59	
	Bus 27	Bus 27 (automatic upp	grade)	100	3,503.71	
	Bus 37	Bus 37 [automatic ups	grade]	101	3.524.31	
				+		

• Connections requests can be seamlessly forwarded from the WebApp to Adaptricity.Plan for a definitive assessment result.

Adaptricity.Connect PRO

- Full-fledged tool for connection request evaluations.
- Use Adaptricity.Plan for request evaluation.
- Use Adaptricity.Connect WebApp for end-customer interaction.
- Maximum operational cost savings achieved.
- Seamless integration between WebApp and planning tool.





Specifications

Infrastructure	
Server location	Germany, Switzerland
Backups	Daily, retention time 1 week
Product specifications	
Data import methods	REST-API or file based via custom data import pipeline
Automatic data update	Daily, user-defined
Interface appearance	Fully adaptable to corporate identity
Data Integration	Linked to other Adaptricity products or existing tools
Evaluation criteria	Capacity, voltage level, system type, distance, costs
Security	Bot protection through rate limiting and other methods
Supported languages	German, English, Spanish
Services	
Custom development	Data integration, evaluation criteria
Response time for support requests	Within two working days

User-friendly interface, fast integration, efficient processes -Adaptricity.Connect

Adaptricity.Connect

Adaptricity.PQ

Adaptricity.PQ is a cloud-based solution that allows grid operators to view metering data geographically in quasi real-time. With Adaptricity.PQ you can visualise and explore data from smart meters and power quality devices, summarising and reporting harmful events in a convenient dashboard. The grid operator has a complete overview of the current and past measurements of its devices.

Keep the overview

The main scope of Adaptricity.PQ is to summarise a large amount of data to provide an actionable overview to the grid operator.

This not only allows a quick setup, but also keeps the functionalities to the very essential to provide a smooth user experience. We deliver an intuitive and dynamic user interface and user experience to enhance overall situational awareness.

Adaptricity.PQ -Explained

Our entry-level product Adaptricity.PQ allows visualization of existing measurement data, e.g., from PowerQuality devices in transformer stations and distribution cabins, with the same graphical interface, even without a network model. We evaluate the data in a structured way to detect limit violations and make unfavourable trends in network operation visible. A complete voltage quality report according to EN 50160 can be generated at the push of a button.

Analysis and evaluation of power quality data with interactive visualizations and reports



Scan here to see more.

Never out of date

As the needs of our customers evolve, so does the product. Whenever specific needs arise, we are keen to design and implement with our customers tailored plug-ins to provide new value.

The product can be customised to visualise various types of measurements, including new types of events and non-electrical quantities.



What comes with Adaptricity.PQ

- Integration and visualisation of both values of field measurements and event-related diagnostic information from the metering devices, such as over and under voltage, unbalanced voltage, meter failures.
- Computation and reporting of alerts according to several regional regulations (e.g., EN 50160).
- Reporting functionality with creation of PDF documents.
- Possibility of co-developing custom detection methods for leak detection, neutral integrity, and demand management features.



What's beyond?

Adaptricity.PQ is only the entrance door to the ecosystem of tools available in the Adaptricity platform. Once a computable grid model is integrated, Adaptricity.PQ can be upgraded to Adaptricity.Mon, bringing the analytic potential to the next level. Exploiting the combination of the grid model with the close-to-realtime meter data, Adaptricity.Mon runs large-scale simulations and offers tools to automatise daily operations, such as:

- Monitoring of further operational grid parameters such as line loadings or node voltages.
- Workflows for streamlining the approval of connection requests based on real data.
- Execution of short-circuit computations.
- Planning and assessment of protection schemes.
- Computation of hosting capacity for new distributed generation or loads.
- Stress-tests with automated Monte-Carlo simulations.
- ...and many more.

How is Adaptricity.PQ set up?

Adaptricity.PQ works without the need of a computable grid model. The only requirement is the location of the meters. A whole grid representation can however be imported for improving the visualisation experience.

Once the meters are active and the APIs are implemented, you only need to insert the API login credentials in the configuration dashboard and define the geographical locations of the devices. The data will be pulled on a regular basis and made available for visualisation and reporting.



Timely, visualisable, explorable, offering a complete overview in one place - Adaptricity.PQ

Specifications

Infrastructure	
Server location	Germany, Switzerland, other locations may be possible upon request
Data transfer	SSL-encrypted data transfer between server and user interface
Login	Two levels: Instance login by HTTP BasicAuth; individual user login
Backup cycle	Daily, one-week retention time
Product specifications	
Power quality evaluation rule set	EN 50160 (2011)
Data acquisition methods	REST-API, file-based via customisable data import pipeline
Automatic data updates	Daily, customisable
Web interface	REST-API, format for data transfer: JSON
Integrated grid model interfaces	Native XML format, UCTE, Matpower, PSS/E, IEEE Common Data Format
Grid model interfaces with previous initial project	PowerFactory, ENTSO-E CIM, CDE, GEONIS, LIDS7, AutoDesk Map3D, G!NIUS, or others via customisable data import pipeline
Version control	Versioning of selected data models
Documentation	Comprehensive support integrated into the software
Supported browsers	Optimised for chromium-based browsers (Chrome, Iron); additionally Edge
Languages available	German, English, Spanish
Licenses	

	Enterprise license	Individual license		
Maximum number of teams	50	1		
Maximum number of users	500	1		
Create new users/teams	yes	no		
Admin interface	yes	yes		
Service				
Customised developments	Available on request			
Response time to support queries	Within one business day			
Software updates	Usually every 7 days			
Development cycle	Upgrades to the Adaptricity Platform are usually released every 10 weeks.			

What our customers say about us



With the introduction of Adaptricity.Sim, grid data and measurements from different master databases is merged and made usable for grid simulation and analytics. Adaptricity has supported us during the implementation phase as an innovative and very competent partner.

Helene Reist

Project Lead - Grid Data Acquisition & Management



We carried out a comprehensive SmartGrid study with Adaptricity because they are consistently apply the new paradigm of active distribution grids in their grid studies. Not only the influence of storage can be investigated in Adaptricity.Sim, but also the grid impacts of actively selfoptimising prosumer customers.

Michael Koller Chief Technology Officer

> We pride ourselves on our innovative and top-quality software products and services in the SmartGrid space. Customer satisfaction is our motivation and how we measure our day-to-day performance.





Time-series based grid simulations help us in identifying and analysing grid operation challenges. In addition, we can evaluate and compare the numerous technical options at hand, i.e., grid topology optimisation, conventional grid upgrades and SmartGrid alternatives with little effort and for each individual case.

Stefan Schmutzler

Team Head - Asset Management



With Adaptricity, we have an ideal partner to bring asset management and time series-based simulation closer together. Distribution network operators benefit from an easier exchange of network information. Our common motivation to drive digitalisation forms our basis.

Karl Thoma

Managing Director EVUlution AG



Frequently asked questions

Where will our data be hosted?

There are three options:

- Hosting in Germany (Upcloud in Frankfurt for all European Customers)
- Hosting in Switzerland (Metanet in Zürich)
- Hosting on-Premises (Customer-specific setup)

What is the timeline for a project to be rolled out?

If an interface to the customer's GIS product is already in place, the software can be rolled out within 3 - 6 months. If data integration requires building a new interface, the timeline will be defined on a case-by-case basis.

How much training is required to begin using the software?

We start with one or two training sessions that allow the customer to start using the software. Further training is available upon request and can be tailored to the specific needs of our customers.

Moreover, the software is equipped with an inbuilt help system, that allows the user to get help with every functionality directly in the system.

If I would like to change from Adaptricity.Plan to Adaptricity.Mon after the smart meter rollout is done, can I do so?

An upgrade is always possible, usually there are some additional interfaces to be set up to get the full functionality of the next version.

How can I uncover my grid's weak spots?

To discover future potential challenges for your grid, an extended stresstest can be run. The purpose of running this test is to indicate where and under what circumstances a grid will be strained to its maximum.

The demand for connection requests is rising immensely, how can we simplify the processing / testing of such requests?

With Adaptricity.Connect your potential client can evaluate possibilities on their own - Adaptricity.Connect directly suggests the distance to the nearest possible grid connection. This usually results in a customer submitting one previously tested application rather than submitting multiple unrealistic applications. The connection requests can then be processed directly without having to enter any further data.

How can I try out grid variations?

Grid upgrades allow users to try out grid variations such as line-replacements or reconfiguration without affecting the actual grid models. The upgrades can be selectively enabled/disabled when running calculations.

How can I consider customers in time series simulations?

Reference profiles allow the simulation of areas without a full smart meter rollout. Unmetered customers are simulated using reference profiles, which are scaled to match the customer's annual energy consumption.

How do the Adaptricity products fit together?

based platform, and use the same digital twin of your distribution grid, making the upgrade from initial stages of grid planning to full smart-meter-based grid monitoring a breeze.

Adaptricity.PQ is also integrated into the Adaptricity platform, but unlike .Plan, .Sim and .Mon, it does not require a computable grid model. Therefore, it can be a starting point that already provides value to the customer before the grid model has been converted and integrated.

process with our newest product Adaptricity.Connect. The web app builds directly onto the functionality of Adaptricity.Plan, and can be seamlessly integrated into your company website.



We are ISO certified

We successfully achieved ISO 9001 and ISO 27001 in 2020. Both certifications are important and reliable evidence for data security and quality management.

- Our three main products Adaptricity.Plan, Adaptricity.Sim, and Adaptricity.Mon build upon the same cloud-
- Say goodbye to manually evaluating countless connection requests, and fully automate the connection request





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