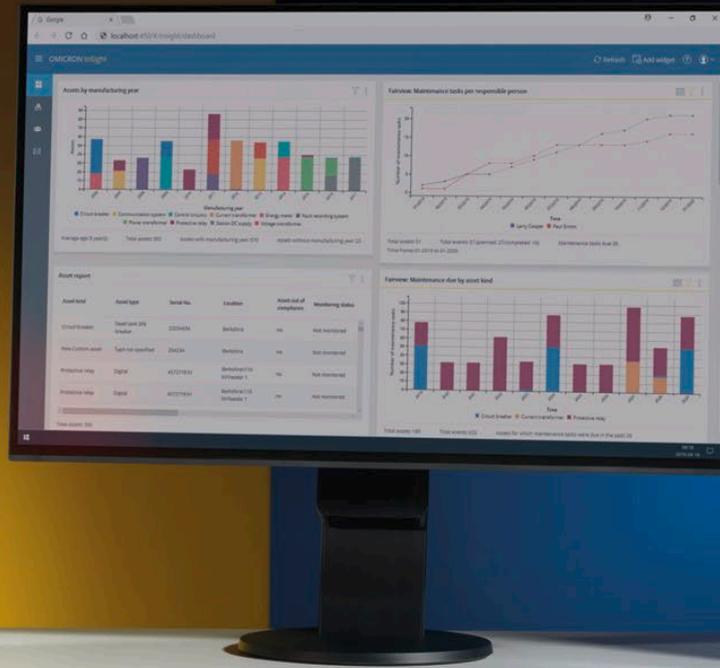


# InSight

Data Analysis for Asset and Maintenance Data



# Optimize your investments with smart data analysis

Purchasing a data management system is a key decision for a utility. A good data management system guarantees data integrity, availability and security; it optimizes workflows and supports decision-making by providing important insights into the assets via data analyses. A system that fulfils these requirements has the potential to deliver huge time and cost savings for a utility.

OMICRON's Asset and Data Management System (ADMO) focuses on delivering optimal maintenance support as well as advanced setting management and data administration functionalities for asset data. Thus, the system represents a comprehensive basis for additional data analysis. The complementary web application InSight builds on the data that is contained in the ADMO database. It allows utilities to gain unique insights into this information, enabling them to develop smarter, data-driven maintenance strategies, to optimize planning and scheduling activities, and to reduce the risk of compliance-related liabilities and fines.

## InSight technology

InSight is a web application that graphically processes data in so-called widgets and allows to set up notifications based on that information. InSight communicates with ADMO via a defined application interface (ADMO API). For security reasons, data provided to InSight is read-only.

## Access for an expanded user group

Because InSight is a web application with a central Identity Management System (IMS), access to the platform is not restricted to ADMO users. This enables a wider user group within the utility (for example management or compliance personnel) to access the analysis capabilities of InSight.

## Purchasing InSight

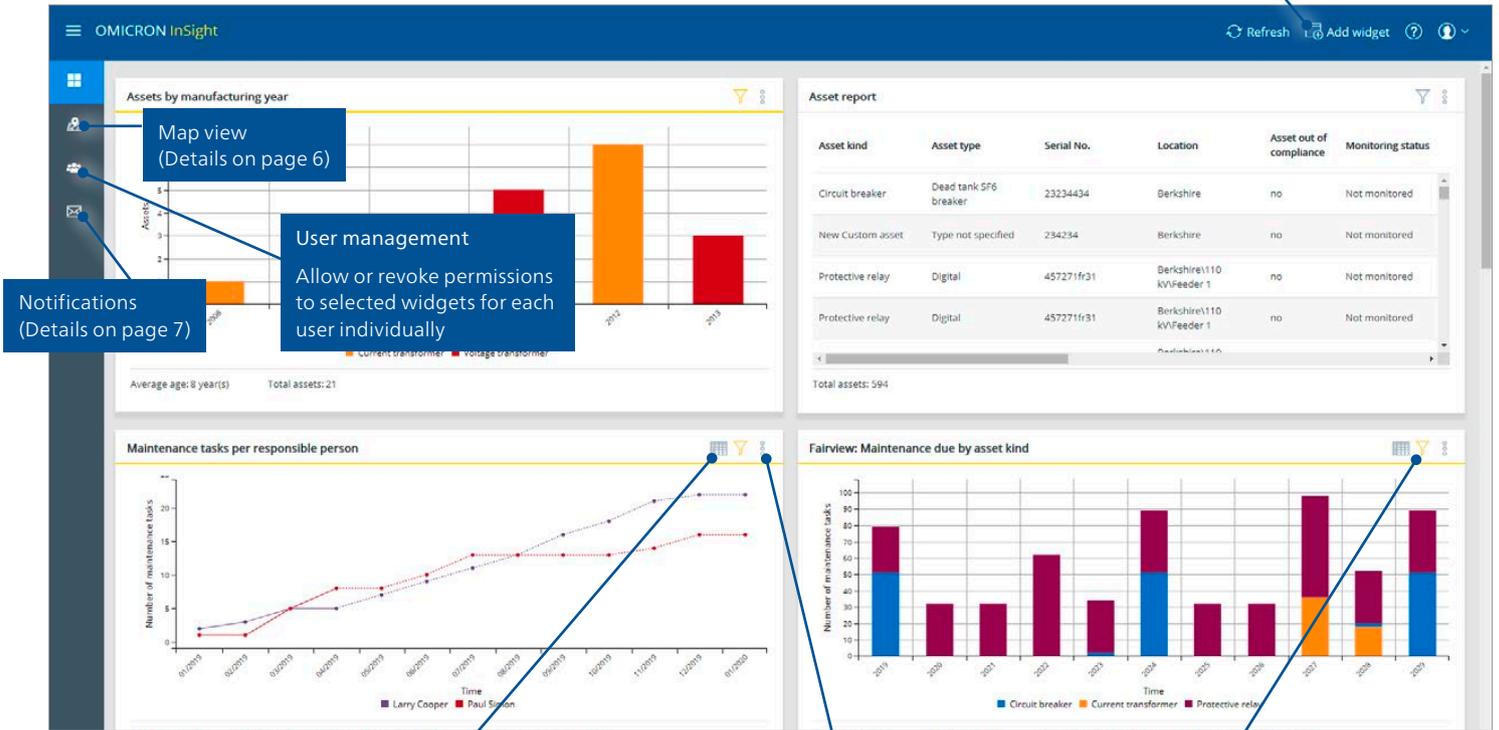
InSight is included with an ADMO maintenance contract at no additional charge. It is not available for ADMO Stand-alone customers or for ADMO Client Server customers without a valid maintenance contract.



The InSight dashboard offers 12 pre-configured widgets that facilitate decision-making with regard to investment strategies and maintenance planning.

### Customize your dashboard

Add any widgets you like to your dashboard. Add the same widget several times with different filter settings to get a quick side-by-side comparison. For example, compare the maintenance status of two locations.



### Switch your view

Switch between a graphical representation and a table view of the widget information to see more data details.

### Print and export data

Print widgets or copy and paste tables into other applications, such as Microsoft Excel®.

### Use flexible filters

Each widget features flexible filters that make it easy to customize the displayed information and allow for targeted selection of relevant data. For example: view data for a specific location, asset kind, time span, responsible person or event type.



## Your benefits

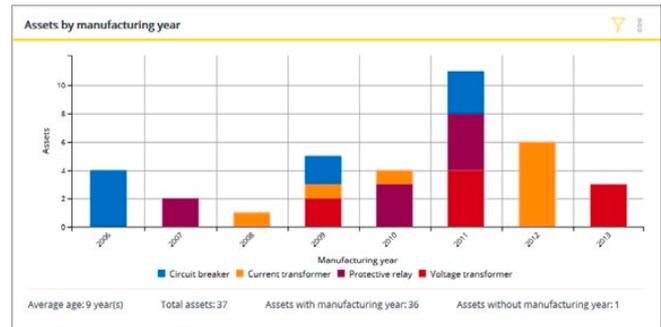
- > Enables data driven decision-making
- > Supports planning, compliance, asset and maintenance management
- > Included in the ADMO maintenance contract
- > Uses already existing data from ADMO

# Visualize your data with customizable widgets

## Assets by manufacturing year

This widget provides information regarding the age structure of assets. The widget lists different assets by manufacturing year and is intended to help asset managers plan their maintenance and renewal strategies.

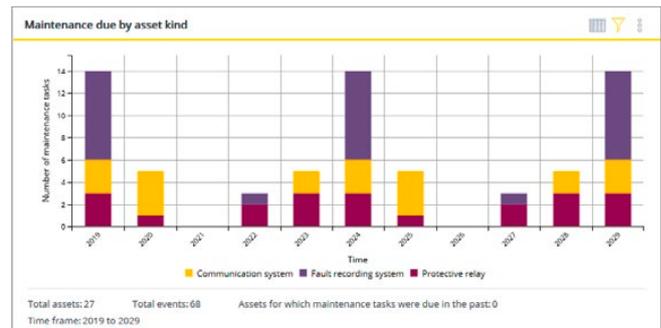
**Filter by:** location, asset kind, manufacturer and time span



## Maintenance due by asset kind

This widget provides an overview of open maintenance tasks per asset kind per year. The widget supports long-term personnel and maintenance planning.

**Filter by:** location, responsible person, asset kind and time span



## Open follow-up tasks

This widget lists and provides information about all due and overdue follow-up tasks. The widget supports maintenance and personnel planning activities.

**Filter by:** location, asset, responsible person and follow-up status

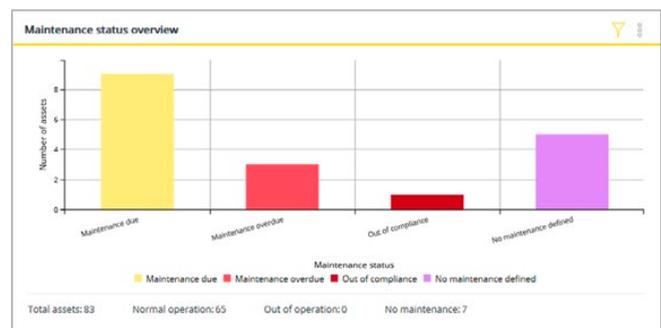
Status	Due date	Follow-up description	Location	Asset kind
Overdue	2018-06-01	Take second reading	Fairview400 kV/Hill East	Energy meter
Due	2019-05-15	Read out fault recording for disturbance on May 3rd	Fairview120 kV/Chey Chase	Fault recording system
Due	2019-05-22	Take second reading within two weeks	Fairview400 kV/Noma	Energy meter
Due	2019-05-31	Follow up with Frank regarding misoperation	Fairview400 kV/Capitol Hill	Circuit breaker
Due	2019-05-31	Change out battery	Fairview120 kV/Chey Chase	Protective relay

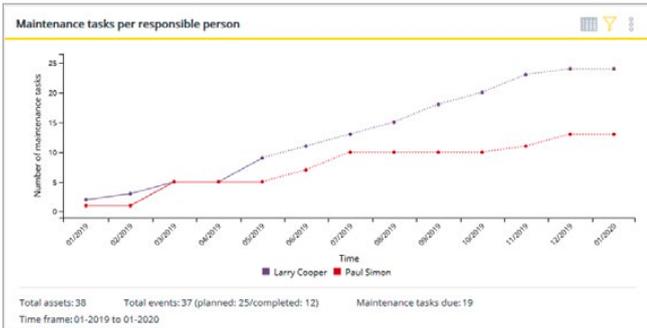
Total open follow-ups: 5    Total follow-ups due: 4    Total follow-ups overdue: 1

## Maintenance status overview

This widget shows the current maintenance status of all assets in the system or at a particular location. The visualization provides the same maintenance status overview, which is a prominent element in the ADMO interface.

**Filter by:** location, asset kind and responsible person

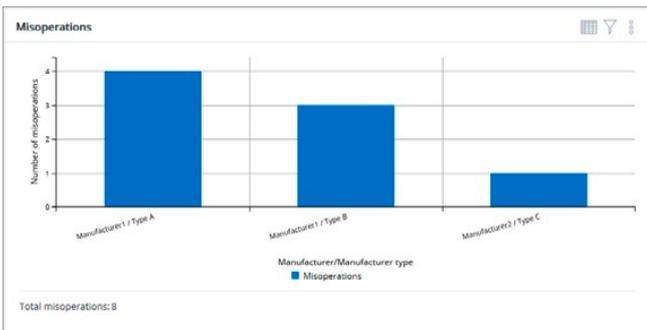




### Maintenance tasks per responsible person

This widget provides an overview of the performed and planned maintenance activities of individual responsible persons. The data assists maintenance managers with their personnel and resource planning.

**Filter by:** location, responsible person, asset kind, event type and time span



### Misoperations

This widget provides a summary of all misoperations that caused network disturbance events. The data is organized by manufacturer and manufacturer type to identify fault-prone equipment easily.

**Filter by:** location, manufacturer and time span

### Network disturbances

Event ID	Date	Disturbance cause	Protection reaction	Type of fault
NS 1124	2019-05-08	Lightning strike	Auto-reclosure successful	
NS 1116	2018-09-13	Misoperation	Trip by backup protection	
NS 1117	2018-11-11	Misoperation	Trip by backup protection	
NS 1118	2018-12-04	Lightning strike	Auto-reclosure successful	
NS 1119	2018-12-18	Ice on line	Auto-reclosure successful	
NS 1120	2018-12-21	Ice on line	Trip	

Number of network disturbances: 6

### Network disturbances

This widget provides an overview of all network disturbances in the system. It lists all network disturbance events and associated data like involved feeders, protection reaction, disturbance cause or supply interruption during a specified time span.

**Filter by:** location, protection reaction, supply interruption and time span

### Asset report

Asset kind	Asset type	Serial No.	Location	Asset out of compliance	Monitoring status
Protective relay	Digital	457271f31	Berkshire1110 kVFeeder 1	no	Not monitored
Circuit breaker	Live tank SF6 breaker	457271f32	Berkshire1110 kVFeeder 1	no	Not monitored
Communication system	Type not specified	457271f33	Berkshire1110 kVFeeder 1	no	Not monitored
Control circuitry	Other	457271f34	Berkshire1110 kVFeeder 1	no	Not monitored

Total assets: 541

### Asset report

This widget provides a table that includes important maintenance information for compliance reporting, such as asset maintenance status, date of the last two maintenance events, maintenance program and maximum maintenance interval.

**Filter by:** asset kind and location

## Custom widgets

In case of very specific analysis requirements, it is possible to order custom widgets. This allows customers to specify widgets to best fit their information needs. A custom widget can be implemented and delivered via a plug-in infrastructure at any time.

# Get an overview with InSight maps

The map section provides an overview of the maintenance status of all assets in the system by location. Selecting a substation provides additional information about the number of open maintenance or follow-up tasks at that particular location and which assets are concerned.

### Declutter the map

Hide all locations with no open tasks (green).

### Customize your view

Create favorites and persist maps with different zoom levels and filter settings.

### Filter your data

Show the maintenance status for a specific asset, timeline or responsible person.

**UW Berlin**

Maintenance due	4	Asset kind	Manufacturer	Serial No.
No maintenance defined:	2	Protective relay	Manufacturer A	4572710r41
Open follow-up tasks:	3	Protective relay	Manufacturer A	457271d81
		Protective relay	Manufacturer B	457271fr1

**UW Berlin** summary:

- Total assets: 88
- Maintenance due: 22
- Maintenance overdue: 0
- Out of compliance: 0
- No maintenance defined: 2
- Open follow-up tasks: 5

**Get details**  
Click on a location to see how many assets have open maintenance tasks.

**Maps:** Berlin

**Favorites:** Protective relays - Berlin

Save as favorite

Hide green locations

### See which assets are involved

Get a list of all assets with open tasks at the location.



No asset has a maintenance or follow-up task due or overdue.



At least one asset has a maintenance or follow-up task due.



At least one asset has a maintenance or follow-up task overdue.

In the Notifications section users have the option to configure periodic e-mails to support various management, scheduling and reporting tasks. The notifications are sent out via the existing office mail system and can be set up for InSight users as well as non-InSight users.

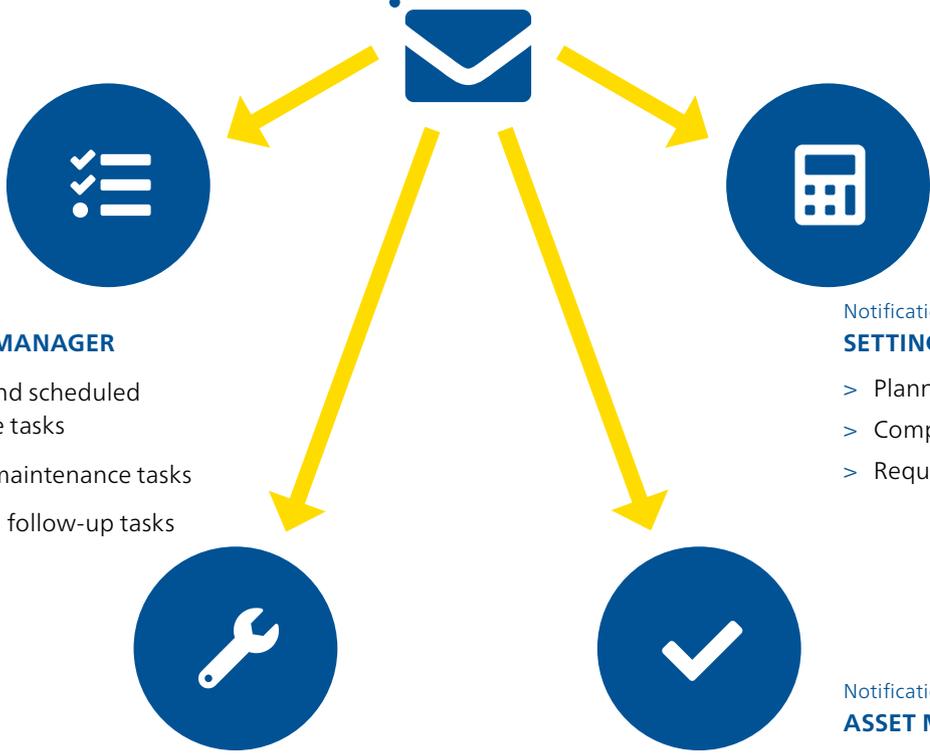
Notifications can be created in the notification area, or directly at the widget, automatically using the applied filters to configure the e-mail notification.

Each e-mail notification contains an attachment with up-to-date data, as predefined with filters.

Event ID	Date	Disturbance cause	Protection reaction	Type of fault
MS-1101	2018-08-02	Lightning strike	Auto-recovery successful	
MS-1102	2018-08-12	Misoperation	Try by backup protection	
MS-1103	2018-11-13	Misoperation	Try by backup protection	
MS-1104	2018-12-04	Lightning strike	Auto-recovery successful	
MS-1105	2018-12-18	Open line	Auto-recovery successful	
MS-1106	2018-12-21	Out on line	Try	

Select sending frequency to be daily, weekly, monthly or yearly.

Define the recipients of the notifications, then add custom subject and text to the emails.



Notifications for **OPERATIONS MANAGER**

- > Upcoming and scheduled maintenance tasks
- > Completed maintenance tasks
- > Overall open follow-up tasks

Notifications for **TESTER**

- > My planned events
- > My open maintenance tasks
- > My open follow-up tasks

Notifications for **SETTINGS ENGINEER**

- > Planned settings changes
- > Completed settings changes
- > Required review of settings

Notifications for **ASSET MANAGER**

- > Misoperations of assets
- > Network disturbances
- > Asset maintenance and status reports

We create customer value through ...

## Quality

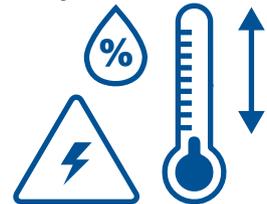
We always want you to be able to rely on our testing solutions. This is why our products have been developed with experience, passion and care and are continually setting ground-breaking standards in our industry sector.



You can rely on the highest safety and security standards

Superior reliability with up to

72



hours burn-in tests before delivery

100%

routine testing for all test set components



ISO 9001  
TÜV & EMAS  
ISO 14001  
OHSAS 18001

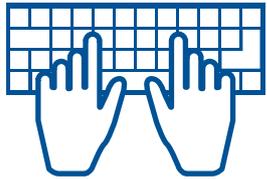


Compliance with international standards

## Innovation

Thinking and acting innovatively is something that's deeply rooted in our genes. Our comprehensive product care concept also guarantees that your investment will pay off in the long run – e.g. with free software updates.

More than

**200** 

developers keep our solutions up-to-date

 I need...



... a product portfolio tailored to my needs

Save up to

**70%** 

testing time through templates, and automation

More than

**15%** 

of our annual sales is reinvested in research and development

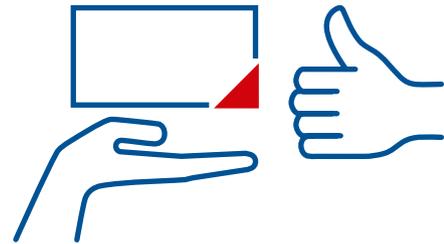
We create customer value through ...

## Support

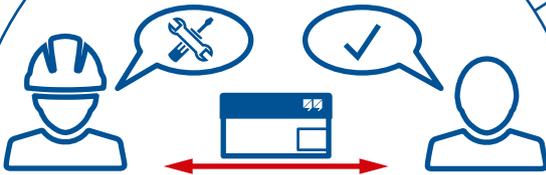
When rapid assistance is required, we're always right at your side. Our highly-qualified technicians are always reachable. Furthermore, we help you minimize downtimes by lending you testing equipment from one of our service centers.



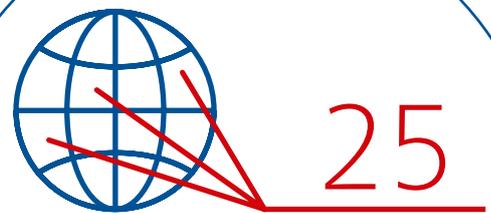
Professional technical support  
at any time



Loaner devices help to  
reduce downtime



Cost-effective and straight-  
forward repair and calibration



offices worldwide for local  
contact and support

## Knowledge

We maintain a continuous dialogue with users and experts. Customers can benefit from our expertise with free access to application notes and professional articles. Additionally, the OMICRON Academy offers a wide spectrum of training courses and webinars.



Frequently OMICRON hosted user meetings, seminars and conferences

More than

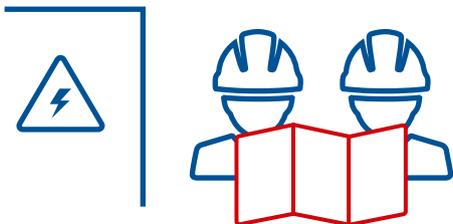
300



Academy and numerous hands-on trainings per year



to thousands of technical papers and application notes



Extensive expertise in consulting, testing and diagnostics

OMICRON is an international company that works passionately on ideas for making electric power systems safe and reliable. Our pioneering solutions are designed to meet our industry's current and future challenges. We always go the extra mile to empower our customers: we react to their needs, provide extraordinary local support, and share our expertise.

Within the OMICRON group, we research and develop innovative technologies for all fields in electric power systems. When it comes to electrical testing for medium- and high-voltage equipment, protection testing, digital substation testing solutions, and cybersecurity solutions, customers all over the world trust in the accuracy, speed, and quality of our user-friendly solutions.

Founded in 1984, OMICRON draws on their decades of profound expertise in the field of electric power engineering. A dedicated team of more than 900 employees provides solutions with 24/7 support at 25 locations worldwide and serves customers in more than 160 countries.

The following publications provide further information on the solutions described in this brochure:



ADMO brochure

For more information, additional literature, and detailed contact information of our worldwide offices please visit our website.

