List of product modules
XMatik®.smart | EAM

	Basic	Premium
Core module		
Master data (Objects)	✔	✔
Documents	✔	✔
Partners, contacts, list of workers	✔	✔
Code-books	✔	✔
Sets / Templates	✔	✔
Auditing	✔	✔
Dashboard		✔
User customized GUI		✔
User extension of data model		✔
Asset management		
Prearranged passports of equipment	✔	✔
Technical sites, Equipment locations	✔	✔
Equipment life cycle	✔	✔
User parameter sets	✔	✔
Dangerous and Risky equipment		✔
Drawings and diagrams		
Viewing schemes	✔	✔
Layers	✔	✔
Thematic views		✔
Redlining – drawing notes, comments		✔
Maintenance		
Register, planning, history	✔	✔
Work, Material, Resources		✔
Cost tracking		✔
Worksheets		✔
Shutdowns and projects		✔

Maintenance requests

Requests for work	✔	✔
Malfunction messages	✔	✔
Workflow (accepting a request, assigning, processing, resolving)	✔	✔
Creating new types of requirements with own data structures		✔

Budgets

Budgeting (allocation and redistribution of funds)	✔	✔
A comparisom with cost history, with other budget versions and a material plan	✔	✔
Budget administration (budget versions, role management, budget structures, time slices)		✔

Failure events

Root cause analysis	✔	✔
Corrective actions proposal	✔	✔
Evaluation of the actions effectiveness	✔	✔
Finding similar failures through text analysis by the means of artificial intelligence		✔
Analysis of the most common failure types by the means of artificial intelligence		✔

Planning and scheduling

Periodic planning (fixed, variable)	✔	✔
Basic sets of planning rules	✔	✔
Conditional planning cycles	✔	✔
Alternative activities	✔	✔
Rule-based planning (exceeding threshold limit, etc.)	✔	✔
Scheduling shifts		✔
Planning calendar		✔
Resource utilization		✔

Staff management

Responsibilities	✔	✔
Trainings	✔	✔
Certificates	✔	✔
Assigned work and protective equipment		✔
Knowledge map of workers		✔

My tasks

User tasks	✔	✔
Configurable workflow	✔	✔
Mobile application	✔	✔
Unlimited number of task types		✔

Inspections

Inspection activities	✔	✔
Inspection protocols	✔	✔
Findings	✔	✔
Control of measurements		✔
Analysis of measured values		✔

Metrology and calibrations

Calibration activities	✔	✔
Calibration protocols	✔	✔
Measurement devices	✔	✔
Etalons	✔	✔
Variances	✔	✔

Material catalogue

Hierarchical breakdown of basic catalogue classes	✔	✔
Separation of factual view (catalogue items) and business view (stock items)	✔	✔
Parameter inheritance among classes and automatic creation	✔	✔
Level configuration	✔	✔
Multi-site catalogue (multiple sites)		✔
Automatic prediction of consumption		✔
Calculation of the most optimal levels		✔

Warehousing

Warehouse management	✔	✔
Basic warehouse operations	✔	✔
Non-accounting warehouses	✔	✔
Handy warehouses	✔	✔
Approval of stock movements		✔
Life cycle of spare parts		✔

Procurement

Purchase requests	✔	✔
Automatic generation of requests based on maintenance needs and levels	✔	✔
Purchase workflow (accepting a requirement, approval, automatic completion after stocking)	✔	✔
Tenders		✔
Procurement portal		✔
Electronic auctions		✔

Reservations

Automatic stock item reservations	✔	✔
Notification with the list of material by email	✔	✔
Time reservations	✔	✔
Automatic identification of the most optimal warehouse or combination of warehouses		✔
Automatic prioritization of reservations (moving a reservation to a more preferred action)		✔

Business Intelligence

Data analysis	✔	✔
User creation of pivot tables	✔	✔
User creation of graphs	✔	✔
Administration – creation of your own data warehouses		✔

Description of modules

Core module

The module contains register of objects with basic parameters (without technical parameters). Of course, there is also register of related documentation to all objects and other records in the system. It includes also register of workers, organizations and their contact details. The administrator can change lists of codebooks on the used equipment, activities, etc. Individual lists of possible values can be extended, limited or changed as needed. The module also includes the posibility to create combinations based on predefined templates that can be modified by the user.

If you purchase a premium version, you will also get these extras:

- Complete tracking history – who, what, when changed in the extent, which parameters were changed and what has been done within that change.
- A predefined and customizable dahsboard with multiple visualization options for predefined data sources.
- Possibility of changing the layout of the elements and expanding individual screens through the user interface. Adding new properties for selected record types. Then these features are available throughout the application.

Asset management

The module contains prearranged passports of basic types of equipment (electrical equipment, pumps, pipelines, pressure equipment, boilers, gas equipment...) and possibility to record your own sets of parameters depending on the type of equipment. It is also possible to record the location of the equipment in the technical sites. The module also supports the recording of rotating assets t. j. tracking the history where the equipment was placed over the time.

Each equipment has an assigned location in space, and the location hierarchy is user configurable.

Furthermore, it is possible to record the life cycle of the equipment (commissioning, maintenance, repair, transfer, shutdown, change of operating parameters, ...).

If you purchase a premium version, you will also get these extras:

- Monitoring and evaluating criticality / risk of equipment from different perspectives (Legislation, Manufacturing Process, Health and Safety, Environment ...).
- Evidence of hazardous substances in facilities in the sense of the GHS code-book.
- Including equipment in an environmental zone (even with hazardous environmental influences such as explosion hazards or high temperatures, etc.).

Drawings and diagrams

The modul enables intuitive viewing of schemas, diagrams, electrical connections, floor plans, map displays in a simple interface (similar to Google maps). Schemes can be viewed on any device, including tablets.

If you purchase a premium version, you will also get these extras:

- Possibility to switch on / off / highlight individual layers in graphic materials.
- Possibility of graphical analysis i.e. conditional formatting of specific elements in graphic materials on the basis of established criteria (for example to display equipment with an exceeded limit value in red).
- Possibility of drawing notes and commenting graphic documents. The notes are kept in separate layers, with a record of a worker who added the note.

Maintenance

The basic version of the module supports complete records of service operations, repairs and preventive activities on the equipment. The module allows you to record and plan activities / bans on the specific devices.

If you purchase a premium version, you will also get these extras:

- Possibility to plan resources (work, material, tools) and track their actual use. Planning is supported on the workplace level or, specifically, by specific workers. The module also provides basic reservation of the material, tools and working means.
- Furthermore, monitoring the costs of specific activities by evaluating the work of individual workplaces, including the possibility of a special valuation of work over the standard working hours.
- Organization of activities into various types of projects. Cost tracking within projects. Organization of individual projects and activities before equipment shutdowns.
- If planning is used, it is possible to use automatic scheduling until the next shutdown (within the specified tolerance).

Maintenance requests

The module allows the creation and reporting of various types of maintenance requirements for all (without licensing restrictions). The module also includes reporting failures and defects. Of course, there is also a related workflow and life cycle of the requirement. There is also the option of an automatical assigning of a solution request to a responsible employee according to areas of responsibility. The concerned parties are automatically notified about all changes by email notification.

If you purchase a premium version, you will also get these extras:

- Possibility to extend the requirements by a custom set of parameters that need to be filled in the requirement.

Budgets

The budget consists of the breakdown of allocated funds into smaller units, accounts and time (from the top to the bottom), as well as the opposite approach - by aggregating the requirements of individual units and departments, or a combined approach.

The module supports any number of levels of budgeting, with the possibility of assigning privileges to some of them to different workers. Budgeting functionality is available for comparing allocated funds with actual withdrawals over the past period, or between other budget versions and actual planned actions.

The Budget Manager has the ability to assign permissions to view and edit budget levels.

If you purchase a premium version, you will also get these extras:

- It can create new budget templates and also has the ability to create time slices of individual dimensions i.e. data versions of given dimensions (e.g. for a frequently changing organizational structure), etc.

Failure events

The module supports the recording of failures including full workflows during their processing. Support tools for recording root cause analysis will help during the failure event assessment (support for 5 why, Ishikawa diagram). Of course there is a possibility to define your own categories (People, Environment, Procedures...). The assessment also includes a proposal of remedial actions and a related workflow (assessment, approval, assignment of a responsible person for the solution, delegation of responsibilities). These actions can then be evaluated and after that it can be decided whether they were effective.

If you purchase a premium version, you will also get these extras:

- An automatic search for similar failures by analyzing texts with the help of an artificial intelligence
- Better support for evaluating the effectiveness of actions by artificial intelligence methods (finding similar failures). In case of a similar disorder, a system-initiated assessment is made whether the failure is related to the action and then it is assessed whether the action taken was affective.
- Analysis of the most common types of failures with the usage of an artificial intelligence and automatic clustering of similar failures by the text analysis and subsequent identification of the most common / the most expensive types of problems. The algorithm works also without the use of failure codes.

Planning and scheduling

The basic solution supports periodic scheduling with fixed execution time defined by its start and period as well as variable scheduling, where the system automatically maintains the spacing between activities depending on actual execution. It is also possible to define scheduling sets (a list of actions with an execution interval defined generally on a set of devices) as well as an "exception" possibility defined on a particular device.

It is also supported by planning defined by conditions (exceeding the limit value, or at a specified interval after / before another activity) and so-called alternate / substitute activities that do not allow you to schedule an activity if a substitute activity has been performed / scheduled in that interval (e.g. overhaul).

The module also provides a possibility of an automatic inclusion of an activity into the planned shutdown (or re-planning into the given shutdown if it is scheduled later) within the limits set by the permitted tolerance.

If you purchase a premium version, you will also get these extras:

- Capacity planning within shifts. Possibility of a shift callendar. Signing up for shifts by staff.
- Detailed planning on the level of a month, week, day based on the set priority.
- Planning and tracking resource usage during planning.

Staff management

For the basic registration of employees (a part of the basic version), the module provides records and control of certificates of employees. An alert at the end of validity. Possibility to condition planning of a worker for an activity on the basis of a valid certificate.

It is possible to record abilities for each worker and then use this information when planning. It also includes a support for planning of a regular employee retraining.

If you purchase a premium version, you will also get these extras:

- Posibility to control the assigned work and protective means including their durability, validity and so on.

My tasks

The module provides a comprehensive capability to monitor the tasks of individual workers that relate to the processes in the system. With configurable workflow capability, tasks can be automatically generated for employees based on the configuration (e.g., supervisor´s approval after the consideration).

The module enables control of workflow by buttons directly from the email related to the job assignment and mobile application can be also used. The system automatically monitors the completion of the task, so for example it automatically completes the task if:

- Someone else has registered the same change.
- The conditions have changed and the task is no longer relevant.

The module also alerts you to a new task assignment by email, and also automatically reminds you of the upcoming deadline. In case of failure to meet the deadline, it sends reminders related to tasks after the deadline with a comprehensive list of all missed tasks.

The basic version of the module allows you to deal with up to 5 separate types of tasks (workflow steps).
(The number can be increased by additional purchasing of the necessary licences individually).

If you purchase a premium version, you will also get these extras:

- Unlimited number of job types.

Inspections

The module supports comprehensive register of inspection activities with the possibility of recording the measurement report, performed control activities and professional assessment. At the same time, it is possible to create an output of the activities in a form of a formatted protocol with a list of measured values.

If you purchase a premium version, you will also get these extras:

- Creating protocols from one or more inspection activities with a record of the protocol validity.

- Protocols with own life cycle (prepared, published...).

- Recording and a register of identified findings and nonconformities. Assigning a person responsible for solving and monitoring of deadlines.

- Checking of performed measurements, finding blank or atypical values.

- Analysis of trends, monitoring of limit values and prediction of their exceeding.

Metrology and calibrations

The module contains register of measurement devices, etalons for their calibrations with monitored validity and tailor-made passports for calibration of specific measuring instruments. Primary purpose is the planning of calibrations and related activities which includes variances calculation and metrology protocols generation.

Material catalogue

The module allows you to create and manage a comprehensive catalogue of material where individual catalogue items are arranged in the catalogue class hierarchy.

A catalogue item can be linked to one or more inventory items to merge several inventory items that are technically interchangeable under a single catalogue item to manage several stock items at once.

Catalogue items are categorized according to catalogue classes that represent a user-configurable material hierarchy. Then, at each level, we can predefine the parameters that will be common to all lower classes and catalogue items.

With this mechanism, it is possible to effectively manage and maintain data in the catalogue.

Based on the parameters which were filled in, it is then possible to use the mechanism of automatic name generation, thanks to which it is possible to maintain uniform terminology in the catalogue.

The module also allows you to record and manage temporary catalogue items that can be subsequently approved by an administrator, or merged with an existing one if it is a duplicate item.

The module also provides the possibility to register spare parts bills of individual devices, thanks to which it is possible to clearly identify for which device the given stock is held in the warehouse. The module also provides automatic

notification in cases where the equipment is shut down or cancelled and a strategic spare parts stock is held for it in the warehouse.

The module also serves for collection of requirements for the strategic stock for the critical equipment and provides the possibility to record and manage these strategic stocks (in cooperation with the Level Control management).

Among other things, when scheduling maintenance on equipment, workers are primarily offered a limited list of material that is included in its bill of material, which greatly simplifies maintenance planning. The basic version also includes the option to set material levels.

If you purchase a premium version, you will also get these extras:

- Multi-site catalogue (several sites).
- Automatic optimal level calculation based on the prediction of the spare part and material consumption.

Warehousing

The module contains comprehensive register of warehouses and stock items, their availability in individual warehouses. It includes the functionality of filling and stock movement creation.
It allows to record and manage responsibilities for individual warehouses. There is also support for the registration of special non-accounting warehouses with a specific management regime. There is also a possibility to reserve stock items only for selected centers and approval of stock movements.

If you purchase a premium version, you will also get these extras:

- Tracking of movement of reusable and refurbished spare parts.

Procurement

The module supports the creation of purchase requests for the purchase of material and services generated automatically on the basis of maintenance requirements. A part of the module is also a comprehensive purchase workflow from the receipt of the request, approval to storage.

If you purchase a premium version, you will also get these extras:

- Creation of tenders, registration of all rounds and addressed suppliers. A catalogue of suppliers for individual commodities / services.
- An electronic auction portal for bidding in a structured form.

Reservations

The module provides automatic reservation of available stock items, taking into account the time of work, delivery time and priority. The solution also includes notifications to the requestors, with a complete list of the required material and monitoring of the ordered parts delivery.

If you purchase a premium version, you will also get these extras:

- Automatic cancellation of the reservation upon completion of the work, or non-collection of the material within the specified time limit.

- Automatic selection of the most optimal combination of warehouses in multiple storage mode.
- Cancellation of reservation) in case of action of higher priority. Possibility of management and prioritization based on the type of maintenance (failure, investment action) as well as manual management of priority.

Business Intelligence

Module BI – Business inteligence allows creation of user overviews, analyses, and comparison of monitored parameters. The module allows users to create their own views of data stored in the data warehouse. It allows to monitor for example various KPI parameters in the context of any registered dimensions.

Within the module, it is possible to display data, whether in the form of a pivot table, where the user uses the Drag & Drop method to select values that he / she wants to see in columns, lines and to define filtering conditions for the given display. Another option is a display in different graphs.

If you purchase a premium version, you will also get these extras:

- Possibility of expanding and creating your own data warehouses for data analysis.

VTZ (specific to Slovak legislative)

The comprehensive package of configuration includes:

- automatic planning rules,
- preset notifications,
- templates of protocols,
- prearranged code-books,
- passports meeting legislative requirements,
- consultations on process implementation.

Fire protection

The comprehensive package of configuration includes:

- configuration of planning rule,
- templates of protocols,
- prearranged code-books,
- tailor-made passports,
- consultations on process implementation.