Ownership has its responsibilities:
CAFM software for facility management.

VertiGIS™

The more properties there are to manage, the more complex and intricate the tasks and documents associated with facility management become. Gathering information from multiple sources presents challenges in tracking, meeting operator obligations, and minimizing liability risks. Moreover, depending on different systems for individual tasks often results in inefficient manual efforts. Streamlining these processes is vital to ensure lower cost and efficiency.

The solution is to implement a centralized Computer Aided Facility Management (CAFM) system, which can be used to plan, record, control, and document recurring tasks. Characteristics and parameters of properties and facilities can now be recorded digitally, and better maintenance strategies can be defined. This ensures optimal resource utilization, saving valuable time and money. Additionally, CAFM systems help mitigate security risks and minimize interruptions to business.

A fundamental topic for facility managers is energy consumption. The right CAFM software can build the foundation for sustainable energy usage by collecting and monitoring consumption data.

So, what should you look for when choosing CAFM software? While this whitepaper focuses on facility and asset management, CAFM software is used in many other similar areas as well.

How to successfully implement CAFM software

To ensure seamless implementation of new CAFM software for team members, the objectives of all users must be addressed, and their needs met. While these goals may differ from company to company, and the prioritization will vary, the following aspects and requirements should be carefully considered to ensure you are making the best choice:

Users

1. An attractive and intuitive user interface (UI)
2. Comprehensive reporting and data visualization

Administrators

3. Simple deployment and maintenance
4. Efficient definition of monitoring and reporting
5. Hassle-free data transfer and updates
6. Straightforward control of collaboration and security

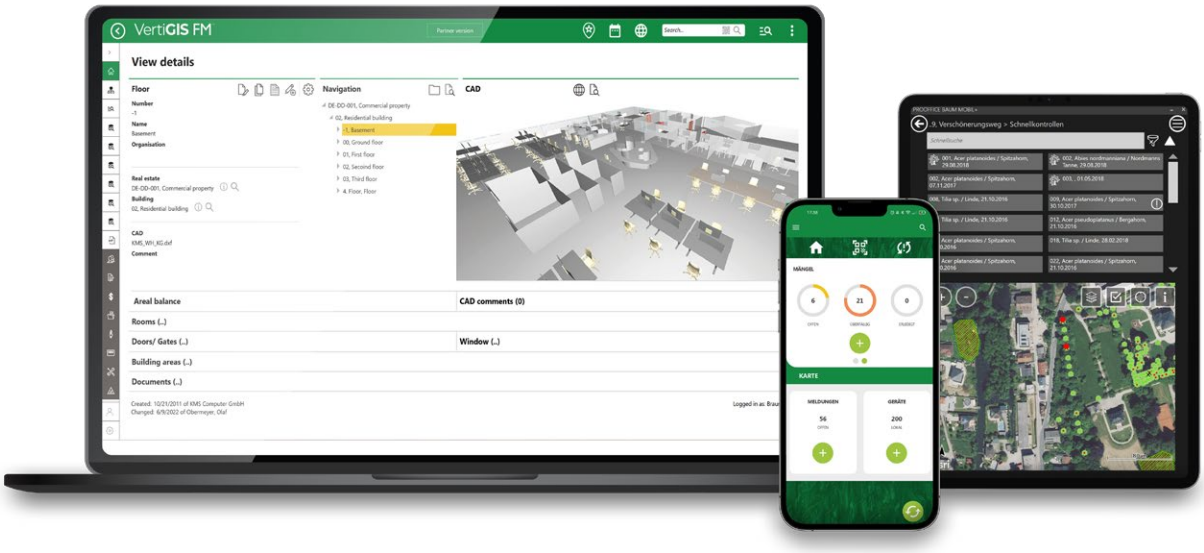
Management

7. Seamless integration with existing IT infrastructure
8. Adherence to quality standards and compliance with legal requirements
9. Definition of use cases and knowledge about expansion options
10. Cost efficiency and scalability

With an abundance of CAFM software available on the market, it can be tricky to find the right solution for your organization. The following explanations will help you nail down your key criteria.

1. An attractive and intuitive user interface (UI)

Ensuring high user acceptance is high on the list of priorities when implementing any software. A new system is often a hurdle that employees will have to overcome.



Modern CAFM software works across devices and offers an attractive and intuitive user interface. This means that staff can use their preferred device (desktop, tablet) and work from anywhere – in the office or offline in the field. Given that facilities and properties are often located in places without an Internet connection, choosing software with offline capabilities is key.

Easy-to-use templates (e.g., drop-down lists) can be helpful when entering information and recording damage or other incidents. Ensure the solution you are considering is mobile-friendly so staff can access data from their tablet or smartphone. Query and data analysis functions help complete assigned tasks with only a few clicks. These features can include full-text search, filters, the ability to save queries, visual display of tasks and checklists, custom reports, a QR code scanner to quickly find properties, email automation, and many more. Lengthy training times are unnecessary when the software is easy to use!

Checklists for recurring tasks should provide concise instructions. They should be well laid-out and structured based on technical maintenance requirements, eliminating the risk of missing essential steps. For facility management, these may include the usage types of certain areas. For inspections, the results can be stored for each list item and corresponding follow-up tasks can be seen at a glance.

For organizations with employees based in different countries, the solution should also support multiple languages with settings for individual users. Comprehensive solutions can even be enhanced with user-defined languages and custom terminology

2. Comprehensive reporting and data visualization

Complex correlations and trends are best recognized with meaningful visualization options such as graphics, diagrams, and maps. Look for insightful reporting tools, extensive visualization options and a connection to CAD, BIM and/or GIS data in 2D and 3D.

These integrated maps and illustrations provide an excellent three-dimensional overview, adding significant value for users. For example, BIM models can be used for evaluation, localization, and navigation. Location and equipment hierarchies can be displayed in clear structures. Other benefits include improved defect management, the ability to quickly identify vacancies, and a better overview of leases. With a spatial reference for every property, using a CAFM system with location intelligence provides huge benefits.

3. Simple deployment and maintenance

We provide two deployment options for CAFM software: on-premises or web-based via cloud (SaaS). By choosing the web-based solution, you can avoid the hassle of acquiring new hardware and expensive software installations on your servers. However, the choice depends on your existing IT environment and the expertise within your company.

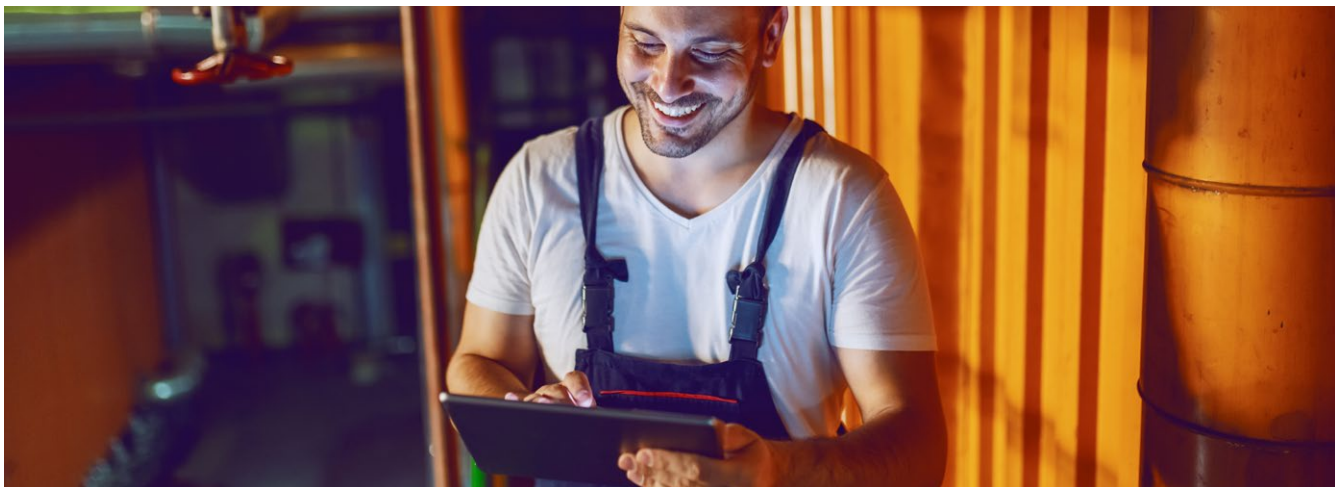
Web-based/SaaS solutions enable system administration from the comfort of your home office or while on the go, granting you access to building and asset data, evaluations, and reports, anytime, anywhere. They provide scalability, which is especially advantageous when your organization has temporary workers or frequent changes to staffing (more under point 8). Additionally, a good SaaS provider offers system monitoring which helps avoid downtimes.

Regardless of the deployment option you choose, ensure that the software is following best practices and is in line with current IT standards.

4. Seamless data transfer and data updates

The data available in a CAFM solution must always be complete and up to date. Without subsequent data updates, a one-time data transfer performed for the project launch does not provide a solid basis for successful CAFM software operation.

That said, the time and effort required for data entry and data migration cannot be underestimated.
A significant amount of time and money can be saved, and key groundwork can be laid for the acceptance



of the solution if the software optimally addresses the processes involved in the data transfer and updates. You should therefore look for a solution with tried-and-tested process and property structures, such as predefined process flows or drop-down lists with common property attributes. Importing and updating existing lists, CAD, BIM, or GIS data should be easy, and you should be able to connect third-party systems via flexible interfaces (see also point seven).

Transferring and updating data by using BIM data has proven to be highly effective in practice. For an initial transfer of legacy data, importing Excel tables works well, so every solution should offer this option.

Besides being used for importing and updating data in the CAFM system, the solution can also serve as a central system from which data can be exported for additional purposes, for example, to architects. Once the data has been processed by external parties, it can be reimported to ensure that the CAFM solution contains and integrates the up-to-date data.

5. Straightforward control of collaboration and security

In general, employees should focus on the tasks that are relevant to them. Make sure that your CAFM software has a well-designed concept for roles and rights, which not only allows you to clearly define responsibilities, but also lets you specify access rights down to the last detail (for example, assigning individual authorizations down to field level). This ensures maximum clarity and guarantees compliance with data protection requirements. For example, you can easily define that site managers can only see the activities related to their own site. You can also limit access to costs and budget data for investment planning exclusively to management and allow departments to only view assets under their own responsibility. However, since defining these distinct roles and rights can be very time-consuming, ensure that the solution you choose has a sophisticated admin interface that allows you to specify the desired definitions efficiently.

The integration of users and roles via authentication providers has major advantages for both administrators and users. This allows IT to assign access to the CAFM system centrally with the respective authorization level in the Active Directory.

In addition to defining the various rights and roles, preparing the views and reports required in each case can also be very tedious. Therefore, it is important to carefully consider what admin tools are offered to guarantee efficient administration – such as a configurable report generator.

6. Seamless integration with existing IT infrastructure

A stand-alone CAFM system might make perfect sense for smaller companies and organizations, but for larger companies, integrating the solution into existing IT infrastructure is often essential. This is the only way to implement end-to-end, company-wide processes.

Interfaces are required to link the CAFM system. In most companies, the greatest potential for optimization lies precisely in those areas where information can be transferred from one business system to another. When selecting your CAFM software, ensure that the systems relevant to you can be connected via available interfaces. For example, you can connect G/L accounts, cost centers, accounts receivable/payable, company data and contacts, as well as invoices and lease agreements through configurable import interfaces. This way, invoices generated in the CAFM system can be transferred directly to the accounting system, and accounts and cost centers can be transferred from the accounting system for invoicing purposes so that this data need only needs to be maintained in one place.

To save costs, special tools can also be used for mapping the CAFM application and other business systems instead of implementing complex interfaces.

Web services enable easy access to data and applications. Ideally, standard configurations should be available for data migrations from third-party programs, simplifying data transfers. Conversely, this makes it just as easy to distribute data for company-wide applications.

Many CAFM systems can also seamlessly integrate other IT and business systems, such as Outlook or document management systems.

7. Adherence to quality standards and compliance with legal requirements

To ensure compliance with quality standards, CAFM solutions can be certified according to GEFMA

(German Facility Management Association) 444, for example. With this certification, the solution meets the quality standards for CAFM systems defined by Deutsche Gesellschaft für Facility Management e.V. (German Facility Management Association).

According to GEFMA (see GEFMA Trend Report 2017), this certification translates into the following potential savings in software usage:

Reduced search effort and better quality of information: savings of 30% to 70%.

Task reporting (effort for entering and transmitting reporting): savings of 40% to 80%.

Adherence to operator obligations and legal compliance is a key aspect of facility management.

With the help of checklists, you can document whether all work has been carried out in compliance with the law. This means that in the event of a claim, you have all the necessary evidence at your fingertips to determine potential operator liability. If the CAFM software provides the option to use these standard checklists and to expand them as required, you can save enormously on time and reduce possible sources of error by means of the default values.

8. Definition of deployment areas and knowledge of expansion options

Define your deployment area: Which areas in your company require CAFM software? Who will use it and what is the timeline? Evaluate the entire range of tasks in your organization that are suitable for CAFM. Next, start looking for a centralized software platform that covers all tasks instead of introducing costly individual solutions.

To achieve quick results when resources are limited, it may be necessary to introduce the software in stages. Such an approach is not disadvantageous. Depending on your company's resources, you can gradually build on individual task areas, benefitting just as much from centralized CAFM software covering all areas. In addition to managing buildings and facilities, the following areas can also be managed with CAFM:

- Maintenance
- Real estate management
- Energy management
- Rental management
- Contract management
- Green space/park management
- Tree cadaster
- Playground management
- Fleet management
- Key management
- Project management

9. Invoicing: Cost accounting and budgeting

CAFM software can provide many great benefits, particularly in the case of hot topics such as energy management, by continuously monitoring and optimizing all consumption. This allows you to quickly identify potential savings, maximize energy efficiency, and reduce consumption and costs. If energy management is an issue for you, and you need to control energy consumption at several properties simultaneously, the topic of smart metering will be of interest to you. In such cases, certain CAFM solutions provide the option to directly connect sensor data and thus manage energy consumption in real time. Find out about possible funding opportunities. The BAFA (Bundesamt für Wirtschaft und Ausfuhrkontrolle [German Federal Office for Economic Affairs and Export Control]) support companies in financing energy management systems, provided that the software is certified according to DIN EN ISO 50001.

10. Cost control and scalability of the solution

The scalability of the CAFM software and an attractive licensing model enable targeted deployment in any size of organization, from small municipalities and engineering firms to large cities and global companies, as well as for state or federal authorities. Moderate acquisition costs and a fast, pragmatic implementation process are essential criteria when budgets are tight.

A standard product offers a major cost advantage as there is no need for costly in-house development. The continued existence of the solution can be contractually guaranteed, and it corresponds to a market standard and/or has already been tested on the market. Some products are also individually configurable, which makes it possible to implement specific requirements (even per user) without the need for programming skills.

Ideally, you should only pay for what you need. Make use of a flexible licensing model that is based on the number of users and departments you need. Make sure that regular updates are included in your licensing model so that you can guarantee maximum security for your employees. If questions arise or if help is needed with the project implementation, a long-term support offering should always be included.

Opting for cloud computing means that you can run your business infrastructure in a scalable way – your data is stored securely, and business processes have a flexible design. CAFM solutions in the cloud are scalable in terms of the number of users and the storage space for documents. Your IT adapts with you in the cloud.

VertiGIS provides certified CAFM software solutions for the entire spectrum of facility management tasks, from property management to key management.

Would you like to learn more about our CAFM software? Visit **www.vertigis.com/infrastructure**

VertiGIS™

About VertiGIS:

VertiGIS is a leading geographic information systems solution provider and software developer. The company's focus is on developing software solutions and services that help customers in the energy supply, water management, land management, government, infrastructure and facility management, and telecommunications sectors to connect their business processes with geospatial technologies. The VertiGIS product portfolio is used by thousands of customers and millions of end users in over 50 countries. It is designed to extend the functionality of leading GIS software solutions, particularly Esri's ArcGIS®. Key product brands include VertiGIS Studio®, VertiGIS FM, VertiGIS Networks, the 3A product line, ConnectMaster™, M4® Solutions and the Future, Mobile and Vision EDP lines. **Find out more at:** www.vertigis.com