



infocad^{FM}
your facility manager



Know, manage & maintain

Today's competitive market requires companies and organizations to face a continuous effort in monitoring and reducing costs, while ensuring quality of services they are providing. Knowing the exact assessment of company facilities is the first step to achieve an effective management of available resources.

Get what you need when you need it

Infocad^{FM}, a CAFM solution designed to manage real estate facilities, allows users to assess, analyze and reorganize company assets in order to preserve their value, improve their effectiveness and respond to multiple needs. Infocad^{FM} provides access to stored information regardless of the workplace: data and plans can be acquired through web services, using a common browser over a internet or intranet network.

Powerful, safe and user friendly

Infocad^{FM} connects data and software solutions based on industry standards technologies such as AutoCAD, Oracle, Flash, and Microsoft: by linking to corporate management systems such as SAP, Oracle Property Manager, ERP and more, it makes the whole amount of data and processes quickly comprehensible and visually appealing.

Real estate integrated management

Infocad^{FM} integrates a CAFM solution for effectively managing real estates and provides users with a comprehensive set of modules designed to combine management functions with visual data. Each module delivers graphic, query and assessment reports both in local and intranet networks.

Plan management

Manage visual and alphanumeric data of buildings, areas, assets and people. Data can be shared via web networks and through Flash based applications.

Asset management

Survey and manage assets while showing them on a plan. Each single item, arranged and categorized, carries a full data report with related components, images and documents.

Space management

Manage the space inventory with ranking and analytic functions. Retrieve space details, destination, area, occupancy, cost efficiency and simulate new planning scenarios.

Personnel management

Analyze human resources and create customized data reports on occupation, localization and use of company assets. Streamline mass move processes through simulation with Move Management modules.





Document management

Manage real estate data and share technical and administrative documents. Sort documents by type and localization, identify missing and expiring items.

Maintenance registry

Create a registry of maintenance objects and group them through multilevel hierarchical schedules. Each item represents a scheduled operation related to a specific asset. Include facilities, building components, plants and more.

Maintenance management

Manage scheduled and on-demand maintenance operations. Plan activities and organize operative staff. Track operations and verify execution through organized timelines, automating email requests and reports.

Emergency plan and risk management

Provide visual information for creating emergency plans (facility and equipment management, escape routes and gathering points, risk areas identification) and manage parametric data for fire risk assessment, related to single rooms as well as whole compartments.

Features and benefits

Team work and shared resources

Optimize collaboration and documents sharing

Many companies face facility management issues by using manual procedures or software solutions that fail to integrate each other. It may happen that team members, while working together, use duplicated or outdated data references. Infocad^{FM}, together with the reliable and scalable Oracle database, is the ideal platform for keeping data archives always up to date and aligned to the latest deployment, providing an effective solution for team work and user collaboration.



Distributing knowledge

One software, many solutions

Thanks to the web based architecture, Infocad^{FM} provides solutions and support to collateral activities that operate outside the main office, like surveillance teams, concierge and hauling services, cleaning companies, etc.

Daily activities like searching available rooms, locate an asset or employee, open a maintenance ticket or survey areas and costs will no longer require specialized personnel: each operation can be easily performed, allowing managers to better focus on strategic and management activities.

Reducing management costs

Immediate return on investment

Infocad^{FM} is the perfect software for managers willing to reduce costs and optimize available resources. Infocad^{FM} provides quick solutions to allocate unused spaces, assign activities to moved employees or temporary workers, track outsourced and global services, compile contracts and tenders relying on updated area data, create simulations and scenarios, manage personnel mass movements, manage registers and maintenance schedules, survey assets and facilities for immediate or future use. User friendly operations and integration of floor plans with existing data allow an effective production procedure and quick return on investment: facility management solutions like Infocad^{FM} have the peculiarity of self financing with the resulting savings.

Safe and customizable

Secure access based on profiles

Each user is provided with a login profile allowing access to the system with a personal password.

System admin assigns access rights according to members activities and competencies: users can be allowed to operate only a defined and targeted set of tasks.

Infocad^{FM} can be customized to allow a selective access to data, documents and visual contents: while using the same floorplans, different users will act differently on assets, facilities and personnel.



Standard software and formats

Oracle and Autodesk

Infocad^{FM} natively supports integration of powerful CAD technologies from Autodesk (Autocad, Revit, Autocad Architecture) with the reliability of Oracle databases, providing user friendly operating interfaces based on Adobe Flash.

Interfaces and interactive dashboards are already known to users, who are required to learn only new components and commands in case they are implemented to the system. Thanks to standard software and formats training session for final users are extremely reduced: access to database is straightforward and doesn't require specific skills for managing data.

Infocad^{FM} is a standard solution with lot of customizable features: dynamic structure of data access can be configured according to client needs without requiring specific software development, giving complete freedom from proprietary solutions and making updates easily accessible.

Fast deployment

Reuse existing data

Loading data and documents is one of the most critical step in implementing a CAFM system. Infocad^{FM} provides specific functions to reuse data already owned by the company, making it easy to generate asset surveys, load existing plans, connect to various database systems or use exchange files for the most common formats (csv, xls, mdb, xml, etc.).

Real estate registry, document management and web sharing

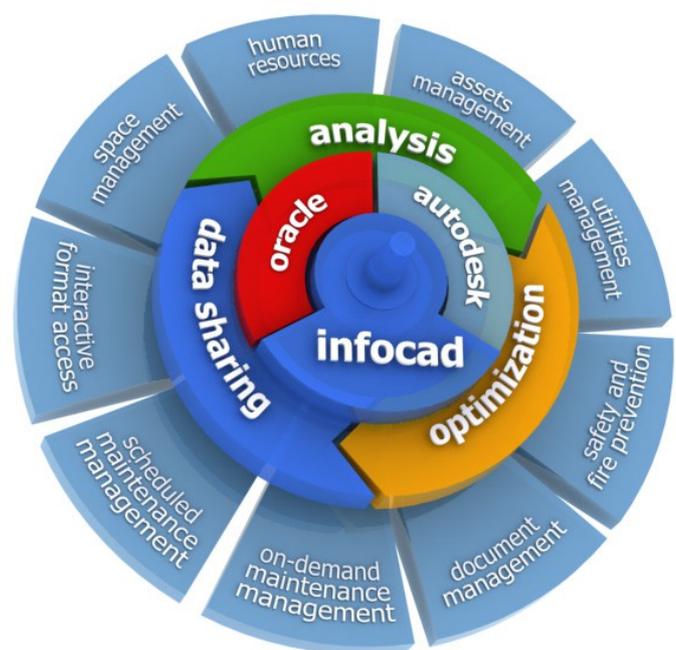
Data and expertise are the essential assets of a company: knowing property usage and condition while relying on real time updated documentation are essential elements to any facility manager.

Infocad^{FM} lets users create a real estate registry where all available data and managing processes are stored and shared. The core of Infocad.FM solution is the combination of CAD/GIS technology from Autodesk for the delivery of graphic environment, and the relational database system from Oracle for creating the analytical data structure.

Infocad^{FM} natively supports Autodesk Autocad and related software such as Autocad Architecture, Autocad Map, Autocad Revit and Architecture Suite. Web access to maps and documents is achieved through interactive Flash modules with real time functions capable querying plans, areas, assets, utilities, etc.

Real estate registry

This service allows the generation of detailed report of technical, administrative and cost effective condition for each property: users can query the registry for a quick overview of usage status and issues of any nature (non-compliant facilities, failure to meet minimum space standards, missing certifications, etc.) and provide needed documentation to submit to administrative offices for meeting standards and regulatory compliance requirements.





Properties can be stored and sorted by placement (region, city, district, zone, compartment, building, unit, room, floor, etc.) or by administrative status (usage, cost, organizational unit, occupants, etc.). Each item carries his own customizable data report with detailed information (id, net and gross area, height, destination, flooring, activities, occupants, facilities, furniture, etc.).

Document repository management

Storing and retrieving information has never been easier with multilevel categories for linking documents (user manuals, procedural lists, etc.) to spatial elements like buildings, rooms, facilities, assets, people and more.

Users can retrieve any document linked to an object or list all documents related to a category, applying filters to narrow the final result (i.e. showing only document concerning fire safety issues related to a particular building).

Online data sharing

Easy access to information is the first requirement for an effective management. Technical data generated in Autocad are easily accessible through common web browsers: real estate registry can be published together with maps and floorplans without the assistance of skilled personnel.

After the registry has been compiled and populated by data, users from authorized departments can access it and retrieve needed information with a simple and user friendly interface that, although professional, doesn't require specific technical skills.

All management modules, even if not directly related to CAD data, are accessible through the same interactive dashboard, allowing users to operate on scheduled maintenance lists as well as call center requests, service quality control, contract management and more.

Assets and equipment

With Infocad^{FM} is easy to organize, track, move and maintain any equipment, utility or furniture that your real estate infrastructure requires.

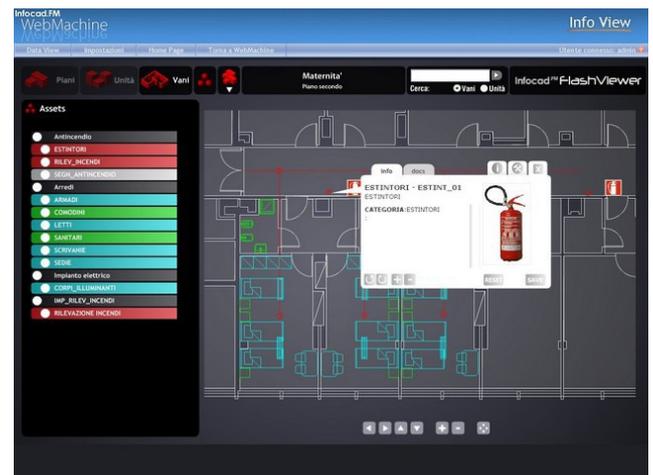
Efficient management

Managing assets with efficient procedures is essential when administering real estate: high investments are required when acquiring equipment and ensuring their maintenance. Efficiency and availability of assets directly influence performance of employees in doing their job. When companies grow is essential to track properties and possessions, their features, location and usage status.

Organize and categorize

Each piece of equipment or furniture can be located on a interactive map and carries a detailed report with data like its id number, type, model, brand, components, requirements, efficiency, etc. Users can append pictures to each report as well as documental files, making them object specific or related to the entire category. Infocad^{FM} can track a single asset during its entire life cycle, from acquisition to disposal, providing accurate updates on performance, cost and maintenance.

Through powerful reporting modules Infocad^{FM} provides precise summaries about any item assigned to a building, floor or room as well as any assets controlled by a team or single employee.



Tools

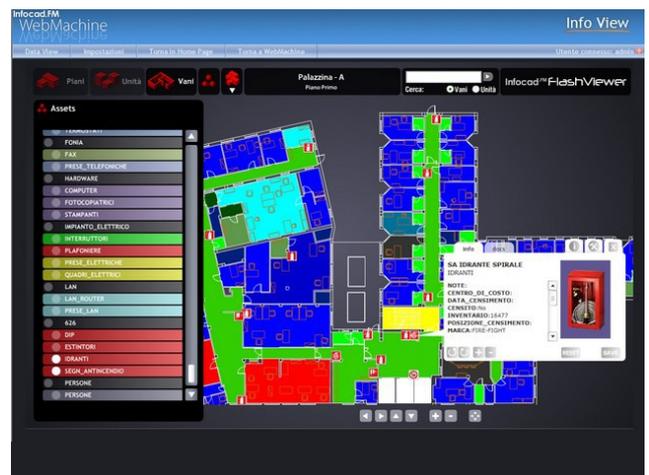
Infocad^{FM} provides useful tools to assist the facility manager in performing desired tasks:

- α **Simulate new scenarios and plan mass movements**
- α Search, filter and sort assets by technical features or location
- α Map based localization of assets and bidirectional interaction between graphics and data

- α Assign assets to employees and automate movements
- α Create reports and lists
- α Load Autocad files with blocks and attributes using batch functions
- α Import data from Excel, Access, CSV files and more
- α Integrate data with preexistent databases or management solutions
- α Use preloaded symbol libraries

Centralized database

Asset management with Infocad^{FM} is performed on databases and maps created with the space management module. Sharing data becomes straightforward with a scalable system that allows authorized users access with full or read-only credentials: customized maps with any kind of information stored in the database (assets, furniture, etc.) can be easily created using data provided by the technical office.



Safe and dynamic management

Keeping data and maps synchronized is the most important requirement of a GIS/CAFM system: using a CAD software just for updating assets on a plan is no longer profitable. For the same reason is not acceptable to simply erase object with Autocad, while they are still referenced into a database.

Relying on full integration with Autocad and Oracle, **Infocad^{FM} assures consistency of data during management operations**: assets are database objects, thus they follow data safety rules. Visual elements are read from maps, saved to database and hidden from the view of unauthorized users. There are no frozen layers of blocks with attributes that can break the linkage to their database record. Infocad^{FM} saves graphic objects to database and retrieves them only when authorized users request visual content.

One of the most important features of Infocad^{FM} is the ability of working and updating database directly through the Autocad interface, without any further step.

Web based fruition and management

Thanks to **Infocad^{FM} FlashServer** technology, users can access data on interactive maps using a common internet browser with FlashTM plugin. Querying assets, showing their documents and images and updating their position are tasks that can be **easily accomplished through the web browser**. Web based operations are automatically stored to the database and synchronized with **.dwg drawings**, allowing people lacking CAD skills to update maps and objects even if they are working from remote places.

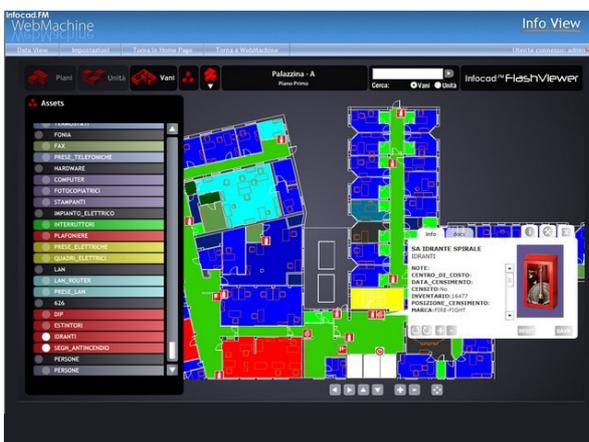
Space and human resources

Infocad^{FM} provides accurate data about space management and usage, allowing Facility Managers to reduce costs while ensuring safer, better and more effective workplaces.

Space management

Space management module is the core of the entire system. Building features, such as plans and data, can be stored to the database through powerful analytic functions. Each single plan will instantly provide useful data about net and gross area, rented units, etc.

Drawings can be integrated with any data needed by the Facility Manager: space type and usage, function allocation, flooring and ceiling type, wall finishes and their condition, availability of workplaces, etc. Any information recorded to the database is used to perform bidirectional queries between floor plans and data, create colored layouts and reports, analyze and control requirements, etc.



Simulation

Infocad^{FM} provides tools to simulate hypothetical scenarios like real estate acquisition, mass movements, moving assets between different buildings, distribution redesign (changing a divided floor to an open space), etc.

Through simulation tools, Infocad^{FM} generates analysis **on cost variation between different scenarios**, according

to changes in distribution of spaces and employee reallocation, and provides **analysis, reports and to-do lists** to help managing the approval process for the new scenario.

Application fields

Infocad.^{FM} tools give solutions to common needs and questions that arise when “living” and “managing” physical spaces:

- α List spaces and their use (Where is room X? How many meeting rooms are in this building? How much office space is available in this building, and what is its percentage compared to service areas?)
- α Show how employees and corporate functions use assigned spaces (How many square meters are allocated to executive offices? How many square meters per employee? How many per cost unit?)
- α Find available areas to allocate new employees (Is there any room with available workplaces? Where? Which organizational unit do they belong to? Can we increase workplaces if we switch to an open space?)
- α Optimize cost units, manage rental fees and financial fulfillment
- α Determine usage factors and area costs (cost per area, workplace or heating unit; occupancy factor; crowding index; etc.)
- α Verify which spaces are subject to taxation or maintenance/cleaning services
- α Identify failures to conform to regulations and company quality standards

Human resources management

Human resources are one of the most important aspects of **cost management**: as the company engine, their effectiveness, motivation and involvement are the main ingredients for any successful project or activity. Any company should know and assess its patrimony in order to use it effectively. Facility Managers want to preserve value and building efficiency as well as **optimize available resources** to achieve company goals. Today’s dynamic market and increasing number of temporary workers requires fast adaptation and a simple tool to check and organize company resources.

Managing human resources with Infocad.FM is possible through the data structure created with the space module. Each person is identified on a plan with symbols and text, together with a data sheet showing images and custom attributes. CAD drawings with occupancy factor can be generated on the fly while any operation can be performed through the graphic environment as well as the database structure: changes are automatically updated in both directions.

Infocad^{FM} can be interfaced to preexisting human resources management software, like SAP HR module as well as any paycheck or attendance application, making a whole set of administrative data quickly visible and georeferenced.

Emergency plan and risk profiling

Infocad^{FM} provides graphical modules for designing emergency procedures, managing key items (REI fireproof doors, signposting, fire extinguishers, escape routes, space partitioning, hazardous items storage location, etc.) and calculating fire load on rooms and compartments according to current regulations.

Facilities and maintenance services

Infocad^{FM} integrates specific tools to catalog, locate and maintain facilities and building components.

Knowledge is the basis of management and maintenance

A proper knowledge of buildings and their facilities is a necessity for many professional roles within the company. Each manager or single employee interacts at different levels with the property and its facilities. Their functional status directly affects staff members in performing their jobs properly and safely.

More than other building components, technical facilities require **routine maintenance and repairs** to remain operational: they can be expanded or upgraded and must conform to standard regulation. Infocad^{FM} maintenance

module, entirely web based, allows an integrated and shared management of the complex network of activities, communications, planning strategies, documentation, analysis and controls required to correctly conduct maintenance services, whether they are performed by internal resources or outsourced to specialized companies. Infocad^{FM} is the solution for real estate managers who want to measure the performance of their suppliers as

well as the ideal tool for suppliers (like Global Service) who want to equip their clients with a tool to effectively manage the services they are providing.



Maintenance registry

Infocad^{FM} provides tools to create a shared database of all building elements and systems that have been recorded and georeferenced on maps, like:

- α Items and fixtures (fan coil units, lights, extinguishers, furniture, etc.)
- α Systems (wiring, piping, conditioning, data and communication, medical gas, plumbing, etc.)

Once building elements and systems have been recorded and located, they can be turned into “maintenance items” and organized with various classification and aggregation methods. Such items are:

- α Items already recorded to the registry (i.e. a single fan-coil unit)
- α A group of items (i.e. all building fan-coil units)
- α Items not recorded to the registry or not identified on floor plans (signage, glass façade, external green areas, etc.)

Each “maintenance item” can be divided into components and sub-components through limitless hierarchical structures based on elements typology.

Maintenance management

Infocad^{FM} web based maintenance module provides:

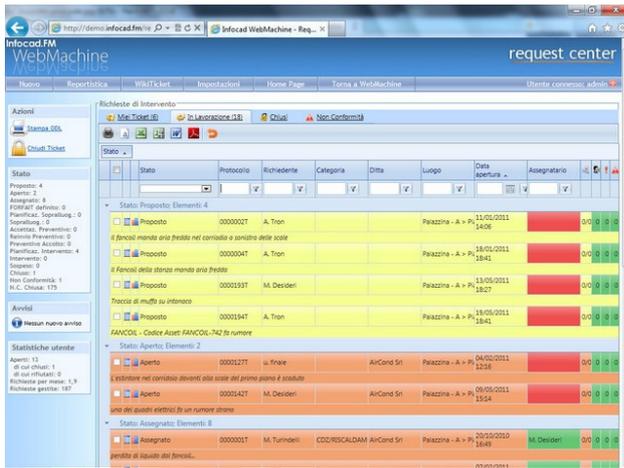
- α Users and suppliers registry
- α Contract and budget management
- α Scheduled maintenance
- α On-demand maintenance (call center)
- α Extraordinary maintenance
- α Services control and management
- α Performance reporting

On-demand maintenance

A customizable workflow with different levels of users (operator, property leader, service leader, maintainer, etc.) helps maintenance managers to open requests, approve costs, close work orders and locate requests on interactive maps through the Flash based interface.

Scheduled maintenance

Each “maintenance item” can be assigned with a maintenance schedule: a “proactive” light dashboard tracks upcoming and expired operations, allowing the creation of printed worksheets.



Stato	Protocollo	Richiedente	Categoria	Ditta	Luogo	Data apertura	Assegnatario			
Proposto	00000027	A. Tron			Palazzina - A > P	11/05/2011		1406	0	0
Proposto	00000047	A. Tron			Palazzina - A > P	18/05/2011		1941	0	0
Proposto	00001937	M. Desideri			Palazzina - A > P	13/05/2011		1927	0	0
Proposto	00001947	A. Tron			Palazzina - A > P	18/05/2011		1941	0	0
Aperto	00001277	su finire	AirCond Sr		Palazzina - A > P	04/02/2011		1228	0	0
Aperto	00001427	M. Desideri	AirCond Sr		Palazzina - A > P	09/05/2011		1954	0	0
Assegnato	00000017	M. Turnaturi	CCD/RISCALDAM	AirCond Sr	Palazzina - A > P	10/05/2011	M. Desideri	1649	0	0

Integrated services control (CSI module)

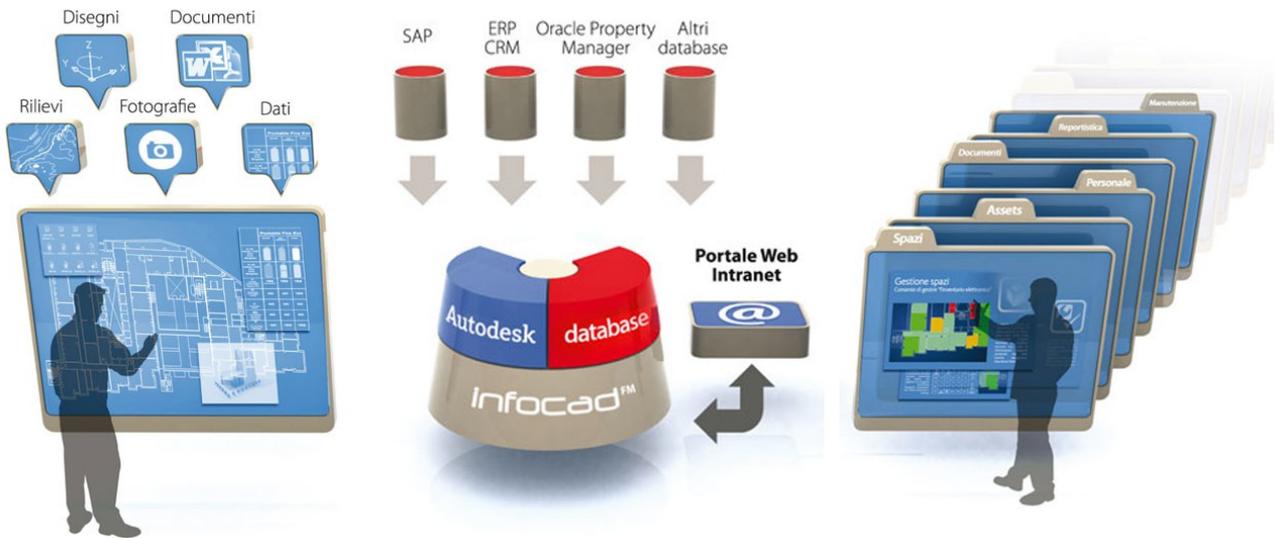
Controls integrated services (cleaning services, special waste handling, etc.) with the following features:

- α Assign schedules to spaces and elements
- α Define sorting priorities (mandatory operations, waiting times according to typology, etc.)
- α ISO standards sampling: create

printable checklist cards and export them to tablet PC

- α Export drawings to tablet PC for a quick overview of maintenance requests locations
- α Define IGV (Performance Indicator for spaces and services) and IGS (Service Indicator) and compare them to anticipated or contracted values
- α Create control reports
- α Track services progress

Software architecture and functional layout



Infocad^{FM} architecture allows aggregation of data, documents, plans, images, decision making workflows and maintenance activities organized into a single shared database: Infocad^{FM} solution focuses on the concept of a **single and safe archive of data**.

We believe that data are the actual wealth of an information system, since hardware and software tools will rapidly change over time: that's because Infocad^{FM} pays the maximum attention to data, their origin, consistency and safety.

The application is structured around a central Oracle database, strictly connected to the management modules. Since data and drawings are saved to the database, the whole system has a high level of aggregation and integration: any single change is automatically updated in all modules, including CAD drawings.

Technology

Infocad^{FM} is based on industry standard technologies such as AutoCAD, Oracle, Adobe Flash, Microsoft and can be easily integrated with existing information systems like SAP, Oracle Property Manager, ERP, etc.

CAD environment is designed to work client-side, while web-based modules are based on a n-tier technology. Oracle database is queried by a Microsoft.NET server connected through TCP/IP protocols.

Front-end user interface is designed for maximum usability and ergonomics, working with Ajax, Adobe Flash, and Microsoft Silverlight technologies. All modules are able to import and export data to the most common office automation products, such as Microsoft Office and OpenOffice.

Infocad^{FM} provides a range of “environments” in which each operator is given the tools that mostly fit its skills and the assigned work:

- α **A production CAD environment** where the data archive is structured and populated, consisting in :
 - **Infocad.FM CAD** module for managing drawings and plans, fully integrated with AutoCAD, that allows database updates directly through the graphical interface
 - **Infoview Module**, for data analysis, creation of reports and visualization of alphanumeric data
- α **A server environment** where the archive resides, designed for publishing and data integration, even when interfaced to preexisting information systems
- α **A web environment** for management, consultation and analysis, where users log through internet or intranet networks. It consists of:
 - **Infocad.FM FlashServer**, an exclusive technology for real time publication of interactive drawings using Flash technology
 - **Infocad.FM Webmachine**, the application environment where user can search, report, analyze, use management functions for scheduled and on-demand maintenance, manage documentation, contracts, etc.
 - **Infocad.FM Mapguide Edition**, the application environment based on Autodesk Mapguide GIS technology for georeferencing map data.



Contacts:

Descor s.r.l.

Via F. Zambonini 26, 00158 Roma, Italy

tel. (+39) 06 9826.4400

fax (+39) 06 4173.2038

p.iva. 03929361008

C.C.I.A.A. 712177

www.infocad.fm