

## Intelligent buildings need intelligent solutions

RaumComputer AG concentrates on the development of technology for building automation, with special focus on open, universal information and communication platforms for integrated building services. Its innovative product RaumComputer® (RC) creates the technological basis for so-called computer-integrated buildings (CIB).

### The Challenge

The IT-Port / Unterschleißheim, Germany, consists of nine buildings which had to include 25,000 square meters of space for offices, a casino and underground parking. Special features include exterior lighting and the remote control of advertisement banners. The challenge for this project was two-fold: on the one hand the function spectrum of the building automation system had to be enhanced to an open, facilities-management-oriented service platform. On the other hand, the control system had to be software-based, implementing innovative data base-, PC and Internet techniques.

This assignment is a successor of the Microsoft-Project that was finished in October 2000. At Microsoft / Unterschleißheim, Germany, the services air-conditioning, lighting and blinds are controlled locally from about 1,400 workplaces/PCs via web-pages; blinds monitoring, window contact and access control services are administered centrally and completely via Intranet probably for the first time on such a scale.

### The Solution

RaumComputer is an integrated, Internet-oriented management and automation software suite, with which building installations can be easily and rapidly set up and reconfigured, keeping pace with the daily change of modern work arrangements.

The management component consists of a specific application of the facilities-management software Byron/BIS and includes complete area management with CAD as well as service order management.

The automation software integrates ProSyst's OSGi-certified mBedded Server. Possible control engines (User Interfaces) include a PDA, a PC and mobile web-enabled devices that can access the requested building services.

Dipl.-Ing. Eric Giese, RaumComputer AG: "This complete and complex solution is only a next step on our way to a range of CIB projects that will keep the progress in this area going. ProSyst's effort means a lot to us and we are glad that this cooperation is so fruitful."

### Intelligent Facility Management via PDA



### The Applications

The IT-Port office building complex was equipped with ProSyst's OSGi software technology and numerous services and devices, such as:

- 2,527 sun-blind motors
- 1,047 light units
- 988 light switches
- 958 temperature sensors
- 253 alarm contacts

**ProSyst and RaumComputer****Success Story**

The user can control and administer the automation system via web-interfaces that he/she can access from any place in the building. These interfaces can be called up from web-browsers, using standard PC hardware (e.g. office or pocket PC). The authorization for the web-interfaces can be customized for different rooms or persons.

**The RaumComputer Automation Software**

The automation software integrates the OSGi-certified mBedded Server. The innovative computer-integrated building product acts as an intelligent handler of information and dynamic software-updates between networked devices and the user, enabling a new level of comfort and convenience. mBedded Server is an open, modular and scalable Java-based software platform that is used for the flexible dynamic adaptation of room constellations at the field level. The field level of the RC remains open for the integration of any device and bus-system – an invitation to all manufacturers to make their products interoperable with the RaumComputer.

All installed devices are necessary for building automation and are grouped together in so called RCboxes. Together with the RCserver, these RCboxes form the IP based RaumComputer network. The centrally based RCserver hosts the ProSyst mBedded server, the database and an xml transformation pipeline. It handles user authentication, UI rendering and the interaction with the installed devices. Another processor is responsible for facilities management tasks and the visual configuration of the system.

**Advantages of the Solution**

- Due to its object orientation, it is easily customizable.
- Connections to other systems such as SAP R3 are available.
- The operator can configure the RaumComputer without any support of a technical expert.
- Any kind of switch, pda or even the cisco ip-phone can be used for access or controlling.

- The automation system can autonomously update without any programming.
- The systems allow RC functionalities to be easily modified by editing the digital building plans, e.g. if room sizes change or new devices are installed.

**Why ProSyst?**

RaumComputer chose to partner with ProSyst Software due to the following advantages:

- Highly stable standardized solution
- Stacks, drivers and services upgradeable on-the-fly
- Modular and scalable integration platform
- Compliance and openness to 3<sup>rd</sup> party solutions
- Fast and local customer support

Dipl.-Ing. Peter Guinand, RaumComputer AG: „With ProSyst’s mBedded Server we have made the right decision for our automation software. This OSGi-certified product is not only stable and scalable but also offers easy integration and dynamic configuration ability.”

**The Conclusion**

The IT-Port in Munich is completed in early summer 2003. The installation of ProSyst’s mBedded server into RaumComputer’s software has helped to meet the time frame. With the future-proof mBedded Server, ProSyst again shows that its products are making visions reality. Computer-integrated buildings will increasingly benefit everyone’s life and ProSyst Software AG is proud to be a part of this change.

For more information and to learn more about what ProSyst can do to make your project a success, please contact ProSyst at [sales@prosyst.com](mailto:sales@prosyst.com) or Phone +49-221-6604-0.

**ProSyst Software AG**

Dürener Str. 405  
50858 Cologne  
Germany

Tel. +49 221 6604-0  
Fax +49 221 6604-660  
[www.prosyst.com](http://www.prosyst.com)  
[info@prosyst.com](mailto:info@prosyst.com)

Copyright© 1999-2002  
ProSyst Software AG  
All rights reserved.