

D.E. Felt: The first calculating machine with keyboard input



→ The Comptometer



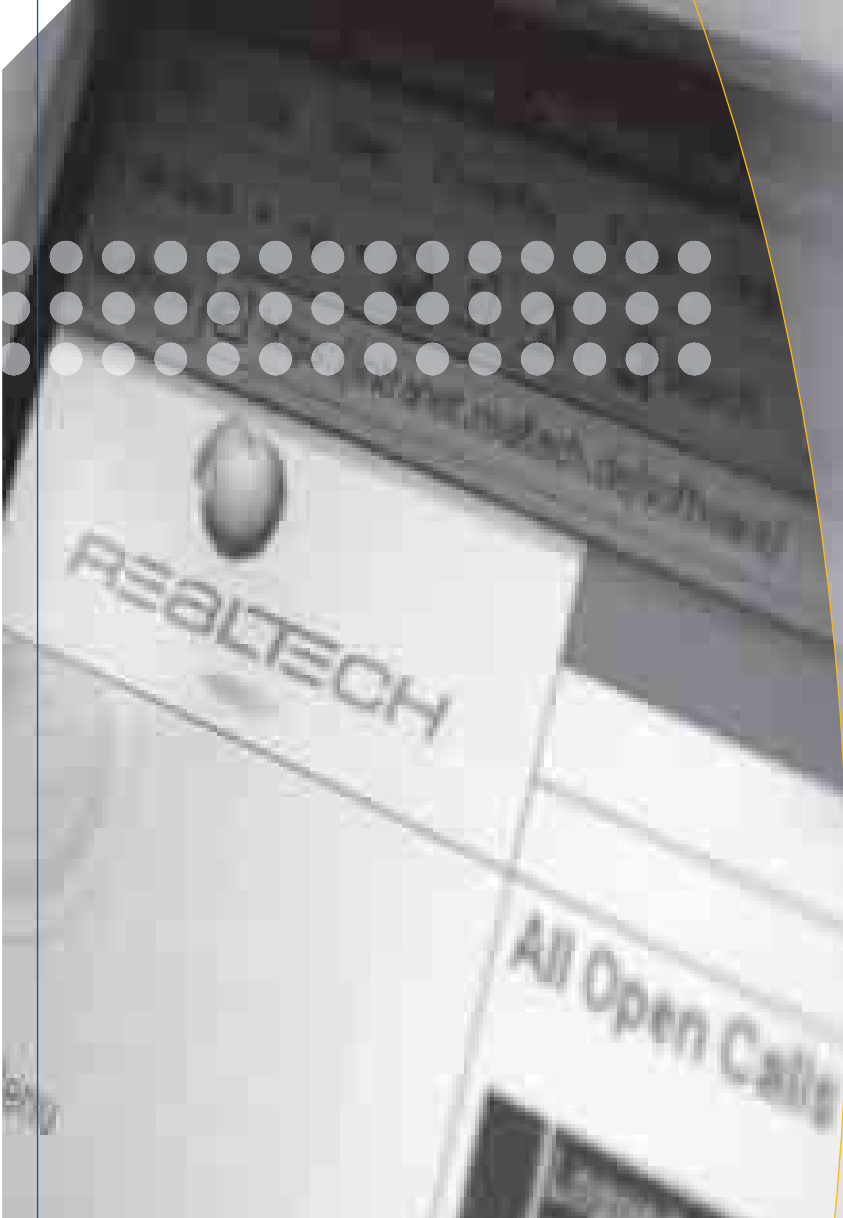
REALTECH AG	
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- Further facilitation in the operation of calculating machines and an important initial step towards achieving user friendliness and enhanced efficiency was constituted by the Comptometer, developed by the American Dorr Eugene Felt. His computer, fitted with a keyboard that he developed himself and patented, was developed industrially into the 1950s. This keyboard made the task of operating the computer a great deal easier and, most importantly, allowed operators to work at speeds previously unimaginable.
- The machine, created in 1885 as a prototype, allows a number to be entered by pressing a key and simultaneously adds it to the register unit. The lever on the right is merely used to activate the deletion mechanism and reset the machine.
- Technically, the Comptometer more or less represents the final stage in the development of mechanical calculating machines. The only additional improvements to be made allowed the output from the result unit to be printed on paper rolls for checking purposes.

1885 Solutions



The Idea – Business Model



Customer orientation is the key to success

Dynamic and fundamental are probably the best words to describe the transformation in the meaning of information technology in companies over the past few years. Lionized and generously provided with ample budgets until very recently, IT organizations now appear to have metamorphosed into cost-driving headaches for many companies. Suppliers in this sector are consequently facing hard times and software producers, hardware manufacturers, and IT service providers have to overcome a great deal more skepticism than before when it comes to convincing customers of the necessity of their products.

At the same time, the crisis presents a great opportunity for all suppliers who, like REALTECH, succeed in meeting changed customer requirements. There is still a demand for IT solutions. It is simply the focus that has altered – from enthusiasm for presumed trend areas to elementary business values, and from the hectic system expansion in numerous individual projects to the purposeful, result-oriented maintenance and consolidation of IT infrastructures.



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Recent studies confirm this new pragmatism in the use of information technology. To take one example, management consultancy Cap Gemini Ernst & Young has reached the conclusion that the following five areas are currently right at the top of the IT agenda: portals, memory systems, business intelligence, the harmonization of electronic business processes, and infrastructure services. At first glance, these sub-areas may not appear particularly spectacular and are not apparently connected with one another. If you look again, though, you will see that companies are beginning to pay increased attention to all five areas for the same reason. These areas all help promote the end-to-end automation of processes – with the ultimate goal of achieving a lasting decrease in operating costs. What’s more, they have proven to be useful instruments for maintaining, and even enhancing, the value of system infrastructures purchased and developed in the past.

There is one more thing that the current IT priorities all have in common: most of them reflect the core competencies of REALTECH. This is no coincidence. It is quite simply the result of an intense customer orientation – a customer

orientation that is deeply rooted in our business strategy and that involves REALTECH employees persistently recording the acute IT needs of companies in detail at an early stage.

Current IT requirements

Corporate IT personnel are currently wrestling with a number of interrelated issues – including coping with reduced budgets and ironing out the consequences of bad planning in the past. A persistently difficult economic climate has led to an overwhelming reluctance to invest in all sectors of industry, all over the world. Moreover, IT budgets are currently not standing on the sidelines in enterprise-wide cost-cutting agendas but are frequently right in the middle of it all as numerous managers have reached the conclusion that software projects launched during the e-business euphoria have only rarely actually lived up to expectations. As a result, IT bosses are now finding themselves in the role of supplicant. Without being able to prove a speedy return on investment they no longer stand much chance of obtaining permission from their managing boards to purchase or develop a new business application. Even an amortization schedule of 15 to 18 months is now often considered unacceptable.

On top of this, company IT systems have constantly grown over the last few decades – coupled with an exponential increase in their complexity. Typical systems today are veritable patchworks of applications and hardware from various manufacturers and cost huge amounts of time and money to master. More often than not the costs involved in managing and maintaining heterogeneous system infrastructures eat up part of the efficiency gains and service advantages which the software-supported automation of processes was originally intended to generate. Up to 80 per cent of stagnating IT budgets are spent just on maintaining the status quo of systems.

Companies are putting huge pressure on IT managers to take constructive action. After all, no company can afford to risk having its system environment succumb to deficits in availability and performance. It doesn’t necessarily take a complete failure to endanger sales, productivity, employee motivation, and customer satisfaction. Even long response times for applications, for instance, can be enough to have a detrimental effect on competitive process efficiency or the quality of customer service. Moreover, while the variety of tasks involved in managing IT systems expands in

1941



Zuse's Z3
Konrad Zuse designs the world's first freely programmable computer. See page 36.

1944



Harvard Mark 1
Howard H. Aiken constructs his version of a freely programmable computer in America – the Harvard Mark 1 (or IBM-ASCC)



conjunction with system complexity, measures to cut costs mean that there is a lack of human resources everywhere. Employees in computer centers frequently have more work than they can cope with from routine tasks. Implementation projects are subject to constant pressure on time.

Achieving savings by restructuring budgets

The only way for companies to escape this dilemma is to consistently consolidate their IT. The simple and yet challenging maxim is "doing more with less". All cost drivers – be they oversized computer capacities, incorrectly configured software applications, or the personnel expenditure for system monitoring – need to be systematically pinpointed and removed. If companies achieve this, they will be able to redirect their IT budgets towards solutions that generate added value, with cash previously spent on routine tasks being freed for strategic projects that give them a real competitive edge.

There is no doubt about it that IT environments are undergoing sweeping changes. Isolated software applications are giving way to integrated solutions that can be used throughout enterprises. Companies are paying increasing attention to new technologies and cost-cutting potential is becoming increasingly apparent. This ongoing process of transformation poses a challenge even for an IT service provider like REALTECH, forcing the company to make regular changes to accommodate new market developments.

REALTECH is in an excellent position to support companies with regard to this recent challenge. Since being formed in 1994, the company has progressively established itself as a competent supplier of top-quality solutions. With the aid of REALTECH, companies are able to implement customized IT environments and optimize operation. Major companies round the globe, not to mention medium-sized businesses from a wide range of industries, confirm that REALTECH's innovative solutions make IT infrastructures reliable, highly available, and efficient.

Strategic partner rather than crisis management group

REALTECH strives to be a reliable partner available to aid customers at all times – with regard to all activities that aim to draw maximum commercial benefit from IT investments. In order to achieve this, REALTECH presents itself on the market as a service provider offering customers advice concerning the design, implementation, and efficient operation of IT environments. In Germany, moreover, the company develops an extensive system and network management solution which, largely automatically, takes preventive measures to safeguard the constant availability of medium-sized and large IT infrastructures.

Manufacturer-neutral consulting with superior knowledge

Today's companies have the choice between countless different hardware and software systems. It is therefore easy to imagine how difficult it is to set up suitable IT environments to meet the various demands. This situation has long since made collaboration with a professional consulting partner a critical factor for a company's success.

1946



The ENIAC
The ENIAC was the first computer based on the new electron tube technology and increased computing speed by a factor of 10³. Complete with a gate buffer, and flip-flop circuit, it became the prototype for all modern computers.



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As an IT service provider, REALTECH has gained a global reputation for its skill in identifying the specific opportunities that individual companies can seize by utilizing new technologies. Moreover, the company is also renowned for its ability to make such prospects a reality – from determining requirements, planning, and designing a concept to making individual adjustments, implementing software applications, and providing support during live operation.

REALTECH acts completely independently of manufacturers, meaning that the solutions it recommends to a customer are based solely on the customer's specific needs and corporate goals. At the same time, however, REALTECH has partnerships and cooperates with various dominant players in the IT sector – including SAP, Microsoft, Dell, Unisys, and Hewlett Packard. This significantly increases REALTECH's market presence while ensuring that its consultants are always among the first to obtain detailed information regarding the latest product innovations and new trends.

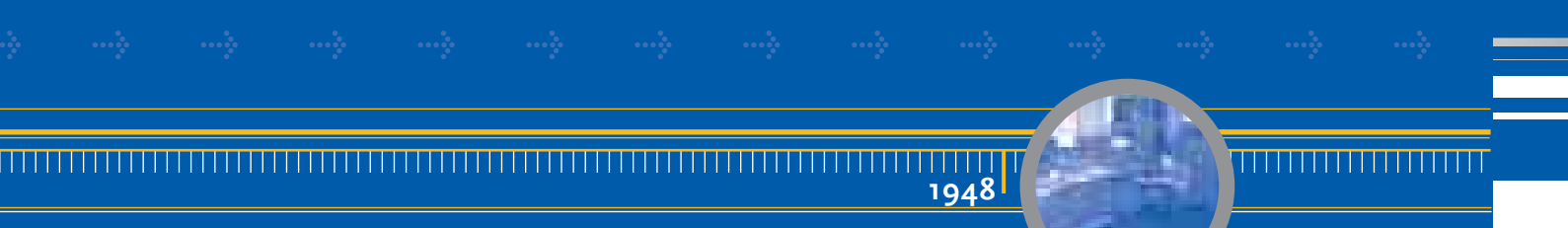
REALTECH focuses its consulting business on the areas in which the company is able to play off its core competencies and superior knowledge against competitors and can point to numerous successful reference projects. In analyzing and optimizing IT processes, consultants have made sensible simplifications to complex system infrastructures and as a result have enabled customers to achieve a lasting reduction in operating costs. This is done, for instance, by migrating business applications to different platforms, consolidating servers, improving storage and data concepts, and finding ways to reduce downtime.

The task of optimizing customer IT environments will be one of REALTECH's focus areas in 2004. This essentially comprises the traditional project business which entails REALTECH assisting customers to implement or update software solutions. The IT service provider has a particularly good reputation for the in-depth practical knowledge utilized by consultants to ensure that SAP systems are implemented smoothly. Other important areas include portal technologies and application integration based on modern Web technologies – areas in which REALTECH enjoys close

collaboration with SAP. This means that the consultants have a detailed knowledge of the various integration scenarios involved in recently developed SAP NetWeaver solutions such as Enterprise Portal, Exchange Infrastructure, and Business Intelligence.

REALTECH software based on everyday experience, for everyday tasks

In developing theGuard! System Management Suite, REALTECH has created an end-to-end solution to support companies in all essential system management tasks. The product family is particularly useful in that it automates precisely those time-consuming monitoring functions that still eat up a large part of the IT budget in many companies. As a result, theGuard! enables companies to free themselves of the risks posed by system downtime and performance deficits – while actually reducing rather than increasing costs. This is because, even in highly complex system environments, theGuard! acts as an effective early warning system, independently detecting all pending bottlenecks well in advance.



1948



IBM 604
 IBM introduces the IBM 604, a punch-card computer based on the electron tube technology and the first computer using this technique to go into serial production.



Thanks to its streamlined architecture, theGuard! is especially easy to implement and operate. The modular principle has also proven to be very useful as it allows customers to select precisely the functionality that they require and expand on it as and when they choose. Six modules are available and can be combined with one another in a flexible manner. To begin with, theGuard! ApplicationManager autonomously monitors the performance behavior of operating systems, databases, and business applications. Another, manufacturer-independent, solution is theGuard! NetworkManager, which enables companies to keep track of and control all network components in heterogeneous system environments. The purpose of theGuard! InventoryManager is to automatically keep records of the entire hardware and software held by a company. theGuard! Helpdesk draws on a knowledge database, regularly fed with know-how from REALTECH consultants, and facilitates the work of the department responsible for answering user queries. theGuard! ServiceLevelAnalyzer provides the tools needed in order to guarantee the adherence to all agreements with customers regarding the performance and availability of IT-supported processes. Finally, the central instance is theGuard!

SystemManagementPortal. Based on Web technologies, this solution combines all theGuard! components in such a way that the information from each component can be viewed at a glance. In addition, the portal makes it possible to evaluate all messages and data together by mouse-click. This is the key to speedily locating and rectifying sources of error.

REALTECH's product range also includes two more solutions that automate the time-consuming, error-prone steps involved in looking after SAP systems. InterfaceManager IM/3 integrates SAP and non-SAP solutions to ensure that data is exchanged securely and transparently between applications while TransportManager allows the implementation of new software components in mySAP environments to be controlled, monitored, and documented centrally.

Autonomous studies confirm that REALTECH products for system and network management are absolutely competitive – despite competition from numerous major global players in this market segment. One study, conducted by market analysts from the Giga Group, awards theGuard! top grades in the two categories of customer acceptance and

ease of installation, while Gartner Research particularly emphasizes the range of functions offered by theGuard! for monitoring mySAP environments.

At home all over the world

REALTECH offers an end-to-end range of solutions with which customers from all sectors of industry can maximize their return on IT investments. Moreover, when it comes to transforming these investments into effective competitive advantages, REALTECH supplies tried and tested recipes. This will also be true, in fact especially so, once the current phase of consolidation has been completed and a recovering economy gives IT budgets more leeway for new acquisitions. After all, striving for process efficiency in computer centers and optimized IT-supported business processes is set to remain a key component of every corporate strategy in the long term.

With a view to utilizing these strengths and competencies even more effectively to boost business growth, REALTECH successively expanded its sales and distribution in 2003. The company's network of sales and distribution partners is becoming progressively denser, just as that of its own branches round the globe. REALTECH is now represented in eleven

1949



*The magnetic-core memory
Jay Forrester uses magnetic-core
memory as a storage medium
for the first time as part of
the "Whirlwind" project.*

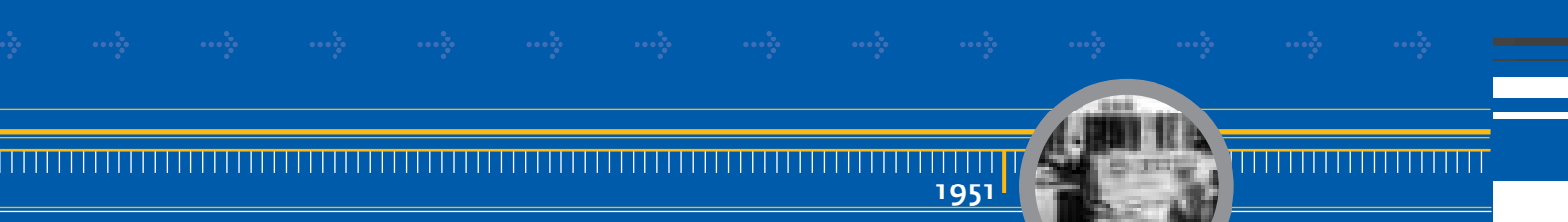


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countries on four continents. This, too, is due to the special customer orientation ensuring that useful solutions to acute business requirements are always created in good time. Moreover, thanks to its international nature, the company benefits from the opportunity to also provide an optimum service for customers with global operations and to transfer know-how between its offices in the various countries. This minimizes dependence on economic developments in individual target markets.

REALTECH's particular closeness to customers is also giving rise to changes within the company. Today, more than ever before, consultants need to focus on customer processes because a knowledge of each specific sector of industry as well as of customer-specific processes makes it possible to retain customers in the long term and provides the company with a vital competitive edge. Flexibility in terms of business models and potential savings from process optimization are therefore two other areas on which REALTECH intends to concentrate this year.

Business figures show that the strategy is working as the company has so far achieved a positive income from operations every year without exception. One aspect that should not be underestimated is the part that sound, transparent company management plays in creating loyal, trusting customer relations. Ultimately, the crucial factor for the company's success is how customers all over the world experience REALTECH's services, products, and employees. The next few pages describe examples of recent projects carried out in fiscal year 2003, demonstrating that REALTECH is on the right track.



1951



The LEO
 Of all companies, it is a food product company – Lyons & Co. from England – which creates the world's first commercial computer, LEO, aiming to realize their vision of a "paperless office".




The world's first freely programmable computer



◆ | Konrad Zuse and the Zuse Z3



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- While work continued throughout the 1930s and 1940s at several state and university institutions in America and England on the problem of developing a programmable computer, i.e. one that could be used for freely specified tasks, a young construction engineer in Berlin called Konrad Zuse developed a programmable, mechanical calculating machine – the Z1 – which never actually worked properly.
- Zuse had got it into his head to construct a “calculating-plan-controlled calculating machine” because, as he later admitted, he was “too lazy” for endless statistical calculations. He continued constructing, without any aid from the state, exclusively using private funds and in his spare time. To begin with, in fact, he worked in his parents’ living room. In 1941 he was then able to present his fully functional Z3 to a group of scientists at a German aeronautical research organization. This machine – soldered together out of old relays and switches from telephone systems – was the first electronic computer in the world that could be freely programmed. It was not until 1943 that a comparable machine, the Harvard Mark 1, ran in the IBM laboratory in Endicott. Unfortunately, the Z3 was completely destroyed during the air raids on Berlin.
- His Z4, developed in a Berlin cellar starting in 1942, continued to work until 1959. Zuse described his legacy as follows: “It took lots of inventors in addition to me to develop the computer, I wish the next generation all the best in working with the computer. I hope the instrument will help people deal with the problems in this world that we old-timers have left behind.”

Solutions 1941



The Implementation – Customer Projects



Poste Italiane S.p.A.

Posteitaliane

Exemplary reliable delivery


More and more companies all over the world are putting their trust in REALTECH's TransportManager. The solution is a valuable aid in the process of importing and distributing new program modules, especially in cross-company SAP installations. The Italian postal service, Poste Italiane, also benefits from this and has chosen TransportManager to achieve a huge reduction in the risks associated with system failures.

Since being privatized, Poste Italiane has been one of the largest companies in Italy, with a national network of 13,700 post offices. The company's 158,000 employees perform not only letter and parcel services but also a wide range of financial services for both corporate and private customers.

In order to ensure that its business processes run smoothly and efficiently, Poste Italiane relies on a modern SAP environment that is in continuous development. Software changes that lead to enhanced system performance and that provide ideal support for Poste Italiane latest business requirements can be implemented speedily without the occurrence of any downtime.



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In the past, the process of distributing program modules at Poste Italiane was dealt a manual process, leaving the responsibility of implementing the changes with a particular employee. In practice, this procedure was just as time-consuming as it was prone to errors. The company therefore began looking for a solution that could be integrated seamlessly into its existing SAP system and that would automate the distribution of software components based on electronic workflows.

The solution chosen was REALTECH's TransportManager. In addition to the supplier's consulting expertise, the Italian postal service was particularly impressed by the range of functions provided by the solution, which represents a guarantee for efficiency and production data integrity and security. One aspect that was particularly important for Poste Italiane



was that REALTECH's solution automatically checks all critical software modules, therefore preventing any clashes between individual change requests. If any errors occur during data transmission, the relevant employees are instantly sent warning messages. According to Paolo Di Martino, Poste Italiane's SAP Competence Center Manager, "The TransportManager now plays a key role for us by ensuring a quick and effective IT infrastructure optimization plan and all at a minimum cost – all without having a detrimental effect on availability."

 **Lufthansa CityLine**



Flying high thanks to proficient SAP consulting

For more than one and a half years, REALTECH assisted Lufthansa CityLine on site as part of a demanding major project. Together, the two companies successfully implemented the SAP A&D (Aerospace and Defense) industry solution. The system went live on schedule in June 2003, since when it has been ensuring consistent, IT-supported workflows for the airline, specializing in European flights, and its 2,400-odd employees.



Within the Lufthansa Group, Lufthansa CityLine specializes in flights in Europe. In 2002 alone, the company carried more than 6.2 million passengers to European metropolises such as Paris, London, Barcelona, and Prague.

In order to ensure that the challenge of implementing a standard SAP software solution tailored to the needs of the aviation industry was carried out successfully and reliably within a short space of time, Lufthansa CityLine took two consulting partners on board. Lufthansa Systems – the Group's own IT service provider – customized SAP A&D to meet the company's specific business processes, while REALTECH AG was responsible for configuring the hardware and helping to implement the new software. "What impressed us about REALTECH was the company's dedication and implementation skills. Moreover, in addition to being familiar with SAP applications, the consultants also had specialized knowledge of our established system platform, IBM AS/400 – something that is rather rare in Germany," explains project manager Mark Nowak.

1951



The UNIVAC
The first commercial American computer is introduced to the market the same year. The UNIVAC mastered 45 different functions, already used dual processors, and was able to save intermediate results and recall them as required.

1955



Silicon Valley
William Shockley sets up the "Semiconductor Laboratory" in Palo Alto, signifying the starting point and birth of the legendary "Silicon Valley".



The first task for REALTECH was to choose a suitable server platform. Having carried out a performance check at an early stage, the technology consultants from Walldorf established that the company's existing hardware would not be able to meet the new requirements. In this way, they therefore eliminated the risk of extremely costly performance deficits emerging later once SAP A&D was up and running. "Using their outstanding knowledge of the market and various technologies, REALTECH consultants helped us find the ideal server platform in no time at all," reports Mark Nowak.

REALTECH also played a decisive role in the critical project phase after SAP A&D had gone live punctually in the summer of 2003. Mark Nowak explains: "During the four-week stabilization phase, REALTECH worked round the clock. Just as in traditional shift work, four consultants took it in turns to look after our SAP system. Any user problems were solved without delay, making it much easier for us to get used to working with the new software as well as ensuring that it was quickly accepted by employees."

Even after the project, REALTECH consultants are continuing to work for

Lufthansa CityLine. Three permanent contact persons are at hand whenever the airline has any questions regarding its SAP systems. Now, in 2004, the plan is for REALTECH to aid the Lufthansa subsidiary as it upgrades to a new version of the solution. Stephan Berger, responsible for looking after the basics of the SAP system, accounts for the company's huge satisfaction as follows: "REALTECH enables us to work efficiently with the new SAP system and ensures that all workflows and business processes run smoothly. Although it is not always immediately obvious to many users what the Walldorf consultants do, they are often performing vital functions."

Bauer Verlagsgruppe



The only thing that is constant is change
Anyone who operates complex application infrastructures will know only too well from their everyday work that the system-wide distribution of software changes has become a tough and time-consuming challenge. This is especially true for companies operating in fast-moving markets. The Bauer Verlagsgruppe has




therefore decided to automate this aspect of ongoing change management using TransportManager, a software solution from REALTECH. The result is a clear increase in efficiency, control, and quality in the maintenance of all SAP systems – and therefore a valuable enhancement of flexibility.

There's no question about it. The Bauer Verlagsgruppe is one of the major players in the European media sector. In its core market of Germany alone, where the enterprise employs almost three quarters of its 6,300-odd employees, it publishes 33 magazines with a total circulation of 19 million copies per publishing interval.



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With a view to supporting and automating the diverse, interlinked business processes of its various enterprise units, Bauer uses SAP systems – systems which the media enterprise’s own 35 software engineers continue to develop. One of the main challenges in the process has turned out to be change management because all modifications to the software must first be thoroughly scrutinized and then distributed in a controlled manner. This is the only way to circumvent the risk of databases or even entire systems failing.

For a long time, the IT team of the Verlagsgruppe carried out this application transfer primarily using manual methods. "This not only took up a lot of time and resources but was also associated with a lack of coordination and transparency," recalls Holger Böhn, SAP Basis group manager at Bauer. The Verlagsgruppe therefore decided to implement REALTECH’s TransportManager – a user-friendly software solution for change management that is completely and utterly integrated into the SAP system, that can do without additional hardware and clients, and that runs independently of operating systems and databases.

As soon as change requests are received today, TransportManager independently takes care of the distribution, while a standardized overview makes the modification processes transparent. The REALTECH solution automatically examines all critical objects before distributing them. "Thanks to TransportManager, all changes to our SAP systems can be made correctly and in line with audit requirements. On the one hand, we have the opportunity to apply special treatment to critical objects such as reports containing personal data. On the other hand, the REALTECH solution is enabling us to consistently implement the principle of dual control. In this way, we can prevent uncontrolled change requests, which are frequently the reason for system downtime," explains Holger Böhn.

TransportManager therefore plays an essential role in making sure that no software modifications are able to encroach upon the production operation of Bauer’s SAP systems. Another user-friendly solution from REALTECH, theGuard! ApplicationManager, has now also come to play a part in achieving this high performance. It reinforces the Verlagsgruppe’s IT organization with regard to forward-looking, central administration for the entire application landscape.

Carl Zeiss Japan

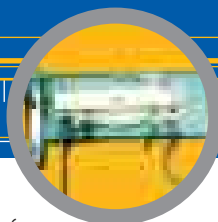


Migration with perspective

At the beginning of 2003, the Japanese subsidiary of the Carl Zeiss Group decided to change over its hardware. The plan was to transfer its existing SAP R/3 systems to new platforms. REALTECH Japan put this plan into practice within a remarkably short space of time. In fact, the project was a resounding success as the German optics group’s Asian offices now benefit from a substantial increase in system performance, coupled with reduced operating costs.

All over the world, the name Carl Zeiss stands for first-class products in the optical and optoelectronic sector. The international corporate group, based in Oberkochen, Baden-Württemberg, has over 14,000 employees and is represented in more than 100 countries round the globe. Since 1961, the company has also had a Japanese subsidiary with 180 employees.

1959



The "integrated circuit"
Jack S. Kilby from Texas Instruments obtains a patent for the integrated circuit, set to revolutionize computer technology.

1960



The floppy disk
The first 5.25-inch diskette, the "floppy disk", begins to be used – making it possible to carry and exchange data.



At the beginning of 2003, Carl Zeiss Japan began to tackle an ambitious migration project with the aim of migrating two SAP R/3 systems from a Unix platform to Dell servers under the Microsoft Windows 2000 operating system. This scheme was not without risk as any extended system downtime would have directly endangered sales flows and employee productivity.

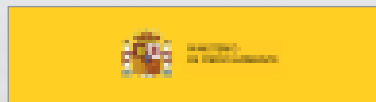
Carl Zeiss Japan therefore required an experienced consulting partner with proven knowledge of the hardware and software technologies used. Having convinced the optic specialist that they were the ones for the job, REALTECH Japan energetically helped with the changeover. The consultants planned the details of the undertaking, carried out the necessary tests, and ultimately took care of the actual migration of the SAP R/3 systems.

The specialists performed an amazing feat, transferring a database with a volume of 100 gigabytes to the new platform in a single day. All necessary adjustments had already been completed by the following day. The downtime of the live system was reduced to an absolute minimum. This fast and reliable project success was the logical consequence of meticulous

planning and painstaking tests. The team from REALTECH Japan had detected and dealt with all potential problems right during the run-up to the migration.

For Carl Zeiss Japan, this hardware changeover has now led to important advantages. Operating costs have been cut drastically and the SAP R/3 systems demonstrate greatly improved performance. In the case of critical business processes, in particular, software response times have been reduced. It is therefore no surprise that Carl Zeiss Japan has already engaged the consulting partner for additional projects – for instance to implement SAP Solution Manager and update SAP Business Information Warehouse.

Ministerio de Medio Ambiente – Spanish ministry of the environment



Maintaining a balance

The Spanish ministry of the environment was on the lookout for a means of shortening the login procedures for its Windows and SAP systems. REALTECH Spain was commissioned to develop a reliable, user-friendly solution for this purpose.

The main task of the ministry for the environment in Spain is to maintain a reasonable balance between economy and ecology in an industrialized country. Day in day out, the authority's employees are faced with diverse, often complex challenges. Laws and initiatives for the conservation of nature need to be fleshed out and measures need to be taken to sensitize the general public to environmental issues. The ministry employs around 10,000 people, half of whom work outside major cities.

With a view to further optimizing the flow of information within this extensive network, the Spanish ministry of the environment decided to implement what is known as a single-sign-on solution. This means that employees will in future only have to log in once to their authority's IT system and will then be able to use all the different application components. Before now, they had been forced to log in again and again, for instance when they wanted to switch from a Windows application to an SAP application. This was unproductive and wasted valuable working time.


1960



Hypertext
In Harvard, Theodor Nelson creates a software solution for non-sequential reading and writing, with cross-references and links, which he christens hypertext. It becomes the foundation for the design of the "Hypertext Markup Language" (HTML).



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The ministry engaged REALTECH Spain as the consulting and development partner for this project, assigning the company the task of adding a sturdy and user-friendly solution to the ministry's IT environment within a very short space of time. When employees log into a Windows system today, they automatically also obtain direct access to the SAP application relevant to them. The chore of repeatedly entering user names and passwords has therefore become a thing of the past. On top of this, the consultants also installed a tried and tested encryption mechanism on the ministry's servers to reliably protect all transmitted data against misuse and unauthorized access. As REALTECH used a free software solution for this, the customer was able to save a fair amount of money.

"Thanks to REALTECH we have greatly simplified the process of logging into our systems. No-one has to remember additional user names and passwords to access the SAP system any more. This increases not only efficiency but also the acceptance of our software solutions – both among employees in our various offices and among the IT staff in our computer center," stresses the SAP Service Manager at the Spanish ministry of the environment. He also points out the path-breaking character of the project,

explaining that, following this speedy success, REALTECH Spain has now proceeded to actively market the single-sign-on solution that it has implemented, offering the system to companies and authorities alike.

Bayer Polimeri S.r.l.

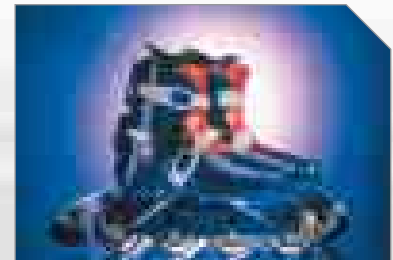


Successful training units

Bayer, a chemicals and pharmaceuticals group, has changed over to SAP R/3 Version 4.6C in all its offices throughout Europe. In parallel to the SAP system upgrade, users at Bayer Polimeri in Italy required fast, effective training for the new solution – a task which REALTECH Italia performed with outstanding results.

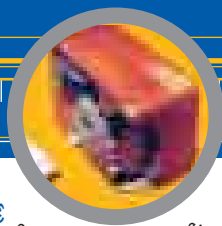
The Bayer chemicals and pharmaceuticals group employs more than 2,500 staff in Italy. Since 2003, the corporate group has had a new subsidiary as, in the context of its POINT project, Bayer spun off the development and production of polymers at its European sites. This gave rise to Bayer Polimeri S.r.l. in Filago, Italy, which has since specialized in products such as plastics, rubber, and polyurethane.

One of the aims of the POINT project was to harmonize IT-supported business processes at all polymer production sites throughout Europe. Now, since the parallel upgrade to SAP R/3 4.6C, Bayer Polimeri has been accessing the same standard system as all other European affiliates. In order for these extensive changes to be implemented smoothly, the company needed to provide 70 SAP users from the Italian Bayer subsidiary with suitable training for the SAP modules of Logistics and Sales and Distribution without delay.



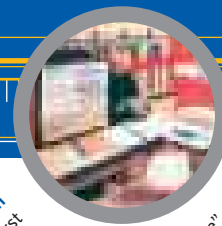
Bayer Italia had already had excellent experience with the training expertise of Italian REALTECH consultants while changing over from SAP R/2 to SAP R/3. It was therefore the obvious thing to do to engage the consultants again for the SAP training needed at Bayer Polimeri. The particular challenge involved for REALTECH Italia was to meet all

1962



Engelbart's "mouse"
Douglas Engelbart designs a large number of user-oriented input devices for the computer – including light pens, joysticks, and the "X-Y position indicator for a display system": the mouse.

1964



The IBM 360 system
IBM announces System 360, the first family of hardware-compatible and software-compatible IBM computers. This computer marks the beginning of the hegemony of "IBM-compatible" machines and the origins of the "electronic age".



requirements of the central training program of Bayer AG and add further consulting services – for instance as part of assistance with change management.

During the course of the project, the REALTECH consultants analyzed existing implementation documentation, assumed responsibility for having the documents translated accurately into Italian, and also conveyed a wide range of information based specifically on the needs of the Italian users. In addition, all learning elements were adjusted to accommodate the roles and tasks of individual employees.

"A really open, productive dialog with employees from REALTECH was developed during the training phase. For example, REALTECH was also a big help to us when it came to communicating the upcoming changes," concludes Silvana Ciceri, who is responsible for the POINT project at Bayer Polimeri, stressing that all requirements defined in the run-up to the project were met in their entirety: "Today, SAP users at Bayer Polimeri have the skills they need in order to draw maximum benefit from the new enterprise software."

Osram GmbH



Enlightening market knowledge

High-performance computers are the centerpiece of all IT landscapes running critical business applications. As SAP consolidation throughout Europe got underway at Osram, the lighting manufacturer started to think about which hardware supplier it should rely on in the future. The traditional company therefore appointed REALTECH as an external consultant to provide advice and help it reach decisions regarding the pending IT investment.

Osram GmbH has around 35,000 employees and supplies light for all sorts of situations. Today, the manufacturer markets its luminaries – from light bulbs to light-emitting diodes and car lights – in more than 140 different countries. Wanting to obtain an ideal overview of the market before procuring a new server environment, Osram engaged technology consultants from REALTECH. Their task was to illuminate the market and provide a recommendation for the purchase of a powerful overall system on which an SAP solution could then be installed and run.


REALTECH promptly provided the answer, with the consultants assuming responsibility for the entire bid invitation process involved in procuring new servers for the SAP applications. In cooperation with Osram, REALTECH drew up detailed bid invitation documents, scrutinized manufacturer data, and systematically restricted the selection of suppliers. "In addition to having technical expertise, consultants also need to be able to think in business terms. Only in this way can they judge, for instance, the extent of operating costs for the servers," explains Robert Blattenberger, Senior Director IT at OSRAM GmbH.



Osram installed an extensive SAP environment on its powerful new computers, using amongst other things applications for Customer Relationship Management, Supply Chain Management, Business Intelligence, and Strategic Enterprise Management. With a view to



REALTECH AG	
Price	4,55
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SID	700 890



also teaching its 1,700-odd SAP users all over Europe how to use the new systems, the company required a suitable training specialist. What the company wanted was a supplier that had training logistics throughout Europe as well as the necessary IT infrastructure in its own offices. All technical aspects of the bid invitation were organized by REALTECH, with the result that a decision was made after just one month.

The SAP users were trained in parallel to the development of the SAP landscape. For more than a year, REALTECH was at the company's disposal to provide know-how, advice, and the implementation skills that were needed.

"In REALTECH, we had a competent and, most importantly, neutral advisor at hand whose recommendations we could trust," sums up Robert Blattenberger. Not only from a commercial viewpoint but also from a technological viewpoint the analyses carried out by REALTECH form an important decision-making basis for choosing and integrating software and hardware solutions.

Lighting Direct



Successful system changeover

Lighting Direct is one of the established players in New Zealand's lighting market. With a view to getting ready for further expansion, the retail chain recently implemented an SAP software solution for medium-sized companies. During this project, consultants from REALTECH New Zealand provided valuable assistance.

Lighting Direct, formed in 1973, has made a name for itself throughout New Zealand – from Whangarei to Invercargill. Over the past 30 years, the company has expanded to become the largest lighting retail chain in the country – with 140 employees and 22 branches. In order to satisfy the demand of a million customers per year, Lighting Direct imports its goods from all over the world, with containers full of lamps and bulbs from Europe and the Far East regularly arriving at Auckland harbor.

With the intention of securing a bright future for its growing lighting business, Lighting Direct decided to fundamentally modernize its key software technologies. The retail company therefore became the first medium-sized company in New Zealand to go for mySAP All-in-One.

This made-to-measure application package from SAP provides small and medium-sized companies with a fast and low-cost means of gaining control over complex business processes – from financial accounting and human resources to logistics and the management of customer relationships.

"We examined our entire IT environment from top to bottom and decided to begin by establishing a sound basis in the form of a hardware and network infrastructure. Then came the bid invitation phase, in which we looked for a suitable software solution for our new system," is how Geoff Pike, IT Manager at Lighting Direct explains the initial situation. The SAP solution won due to its scalability because in implementing SAP All-in-One alone, Lighting Direct was able to rest assured that the company would be able to grow flexibly in line with requirements.



1964



The first supercomputer
In the form of the CDC 6600, the American engineer Seymour Roger Gray develops the first so-called "supercomputer". It's clock frequency of 10 MHz is extremely impressive at the time.

1966



The pocket calculator
Texas Instruments markets the first pocket calculator. The computer is reduced to pocket-size for the first time.



Various consulting partners were involved in the implementation project – including REALTECH as one of the only two resellers to work with SAP in New Zealand. The technology consultants were assigned the important task of transferring mySAP All-in-One to the new, already pre-configured HP hardware and implementing it. In addition, REALTECH New Zealand developed an interface that completely links the new application package with Lighting Direct's existing sales system. As a result, the retail chain has been able to make its warehousing much more efficient and is now in a position to procure more goods in the framework of a "just-in-time" model. So, as the company's stocks of goods diminish, so do operating costs.

"Thanks to the support of REALTECH, the implementation of mySAP All-in-One on a pre-configured HP platform was carried out quickly and efficiently. In practice, our new software has also proven itself to be the ideal solution for medium-sized companies," is Geoff Pike's highly satisfied conclusion.

Interdiscount



As reliable as Swiss clockwork

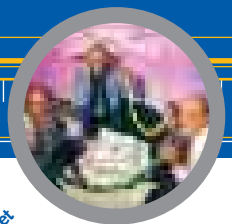
The head office of Interdiscount, an electronics retail chain, exchanges huge quantities of critical business data with its various branches every day. With a view to automating its communications, the company was on the lookout for a flexible, cost-effective solution for integrating the software applications that it uses. In the end, those responsible for choosing a solution decided on IM/3, an integration solution from REALTECH.

With its latest annual sales figure amounting to more than 800 million Swiss francs and a market share of 20 per cent, Interdiscount is clearly the leading specialist supplier of entertainment electronics in Switzerland. The company, which belongs to the Coop Group, offers products ranging from televisions, hi-fi systems, cameras, and computers to household appliances and assorted services.

Interdiscount's 200-odd branches need to be supplied each day with updated master data such as material groups, price specifications, article numbers, and cash desk data. At the same time, the company's central accounting department relies on sales figures, revenues, and purchase orders being transmitted speedily. The task of synchronizing data between the cash desk systems of the various branches and the centralized SAP system often required duplicate manual entry – even though a supportive software solution was used. "As manual data input is a frequent source of errors, it was extremely difficult to work efficiently," stresses Ingo Schuchardt, SAP Basis manager at Interdiscount, and goes on to explain: "Even the most minor changes to the cash desk systems at the branches gave rise to the need for the costly involvement of programmers, for instance in order to update conversion rules."



1968



ARPA-Net
ARPA-Net – the forerunner of the Internet – goes into experimental operation, financed by the US Department of Defense.



REALTECH AG

Price
4,84

Date
22.05.03

SID
700 890



With this in mind, those responsible at Interdiscount decided to change over their data exchange to IM/3 InterfaceManager. The main reasons for this choice were the fact that the REALTECH solution allows centralized interface management and can be implemented without the need for additional hardware. Since implementing IM/3 the company soon began to recognize additional advantages. To take one example, the new software enables the company to process several data exchange processes in parallel and, in this way, complete branch communication reliably within a short space of time.

"Investment in the REALTECH solution paid off after just a year and half," concludes Ingo Schuchardt with obvious satisfaction. He goes on to explain: "Using IM/3, we have been able to connect our branches efficiently so that we can exchange critical corporate data quickly and precisely. All master data is now maintained in the centralized SAP system. Overall, we now work much more efficiently, with the result of substantial cost savings in areas such as system administration."

Two employees at Interdiscount are currently working with IM/3 and monitoring data exchange centrally during production operation – while in the process enjoying a clear increase in user-friendliness and transparency compared to the previous solution. Master data errors have also ceased to pose a problem for Interdiscount as IM/3 enables the company to update sales prices during operation without blocking the cash desk.



1971



E-mail
The company BBN develops a file transfer protocol (CPYNet) for ARPA Net and a Mr. Tomlinson uses it to send the first e-mail (to himself) with the content QWERTYUIOP.




The age of "supercomputers"



◆ The Cray-2



REALTECH AG	
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SID	700 890



- One highly specified field of computing involves “supercomputers”, or high-performance computers. The term supercomputer is generally used to describe the most powerful category of computers at any given time, the dimensions of which are in no way inferior to the calculating giants of the first generation of computers. Compared to those huge computers, however, today’s supercomputers achieve computing powers that would have been thought impossible just a few years ago and are currently able to perform a billion operations per second.
- Supercomputers are usually used for tasks for which the computing power of conventional microcomputers or workstations is insufficient – such as for aircraft construction simulations, in the area of medicine, biology, and chemistry, as well as for extremely computing-intensive applications such as climate research and the simulation of atomic bomb tests. They therefore provide the solution to problems that would otherwise have been completely impossible to solve or eliminate the need for costly, time-consuming, and sometimes even extremely dangerous practical tests.
- The father of the supercomputer is commonly considered to be Seymour Cray, a hardware designer whose CDC 1604, developed as early as 1964, was the first fully-fledged mainframe computer designed for scientific applications. Later, with his “Cray” computers, he set the standards for subsequent generations of high-performance computers.

Solutions 1964

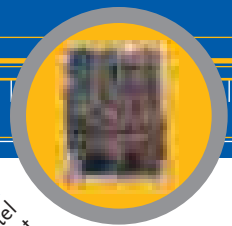


The Feedback – a Selection

Our customers ...

- "Thanks to the exemplary support of REALTECH employees we were able to complete the upgrade securely, speedily, and reliably despite the huge pressure on time,"
Sabine Petarius, responsible for basic SAP technology at AIRSYS, Hamburg.
- "REALTECH stands for in-depth, tried and tested specialist knowledge of the hardware and software technologies relating to SAP R/3 and mySAP.com,"
Adam Molenda, ERP & Application Services team manager, GZS, Frankfurt.
- "Thanks to the support of REALTECH, the implementation of mySAP All-in-One on a pre-configured HP platform was carried out quickly and efficiently,"
Geoff Pike, IT Manager, Lighting Direct, New Zealand.
- "What impressed us about REALTECH was the company's dedication and implementation skills,"
Mark Nowak, project manager, Lufthansa CityLine, Cologne.
- "In REALTECH, we had a competent and, most importantly, neutral advisor at hand whose recommendations we could trust,"
Robert Blattenberger, Senior Director IT, OSRAM, Munich.
- "The TransportManager now plays a key role for us by ensuring a quick and effective IT infrastructure optimization plan and all at a minimum cost ...,"
Paolo Di Martino, SAP Competence Center Manager, Poste Italiane, Italy.
- "The committed and highly motivated manner of the REALTECH consultants and the excellent price-performance ratio of the software say it all,"
Ralf Masa, System Management manager, SIG IT, Linnich/Germany.
- "We chose REALTECH because, being a founding member of the SAP LinuxLab, the company also has access to the latest information regarding open source projects,"
Gudrun Speck, responsible for basic SAP issues, Fujisawa Germany, Munich.


1971



The microprocessor
Creating its model 4004, Intel succeeds in creating the first microprocessor in the world to combine the electronic switches of a computer on a single component, called the "chip".



REALTECH AG	
Price	4,70
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SID	700 890



... and the press

When it comes to system management software, most people immediately think of the four major players: Hewlett-Packard, IBM, Computer Associates, and BMC. Yet there is also a German company that is perfectly able to keep up with these giants – namely Realtech AG. According to market observers from the Giga Group, "theGuard!" system management suite covers more than 80 per cent of requirements expected to be met by a complete network and system management tool ...

ComputerPartner, 03/40, 2003

Comparing various systems for monitoring mySAP, market researcher Gartner established that Realtech outshines all competitors – including companies such as CA, HP, BMC and IBM. The analysts recommend that customers choose Realtech when they need to monitor complex SAP applications and when they require expert knowledge of SAP.... One of the main advantages of Realtech's products is that they are more affordable and not as complex as those

from the company's main competitors. Yet another reason for purchasing the suite is its rapid implementation, which takes around ten days on average.

Computer Reseller News 03/39, 2003

Intelligent job scheduling Cronacle, Redwood's process control and job scheduling software, has been fully integrated into Realtech's theGuard! ApplicationManager. This combination of products enables users to carry out a real-time stock check of all SAP processes that are due for background processing ...

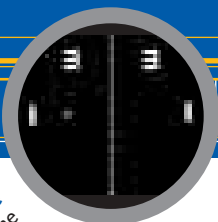
iX 2/2003

A full cash box makes Realtech attractive As always, the IT service provider – which concentrates primarily on consulting but also develops software solutions – enjoys an excellent reputation among analysts.... Despite the numerous problems in the IT sector, Realtech has reported a modest improvement in profits.

Handelsblatt, April 16, 2003

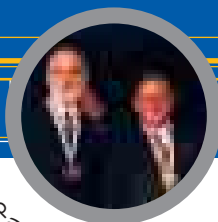


1972



The first computer game
The company Atari markets the first computer game – a table tennis simulation called "pong".

1973



The Internet
Robert Kahn and Vinton Cerf develop a new network protocol (TCP/IP) able to connect all sorts of different computer platforms and networks to form a "network of networks", the so-called INTERNET.