



**ix** Cost Reductions in the  
Development and Operation  
of Enterprise Portals

UNITED PLANET INTREXX XTREME  
RELEASE 4.5

**Table of Contents**

<b>1. Introduction</b> .....	<b>2</b>
<b>2. The Enterprise Portal as an Information and Integration Platform</b> .....	<b>3</b>
<b>3. Challenges to the Successful Implementation of a Portal</b> .....	<b>4</b>
<b>4. Reduction of the Total Cost of Ownership (TCO)</b> .....	<b>4</b>
4.1. Saving 90% of Time by Accelerated Development .....	4
4.2. Savings by simple handling.....	6
4.3. Faster Availability of Applications by Outsourcing of Development to Specialist Departments .....	7
4.4. Optimization of Company Processes and Procedures .....	7
4.5. Saving License Costs by Using Open Source Programs .....	8
4.6. Saving of Software Licenses by EAI .....	9
4.7. Reduction of the Portal License Costs and the Operating Costs .....	9
<b>5. Conclusion</b> .....	<b>10</b>
<b>6. About the author</b> .....	<b>10</b>
<b>7. About Intrex Xtreme</b> .....	<b>10</b>
<b>8. About United Planet</b> .....	<b>12</b>

**1. Introduction**

This White Paper describes how portal projects can be accelerated by using the standard Intrex Xtreme software and how companies can reduce operating costs by integrating data from the ERP system, for example. High saving potentials are revealed and presented such as Deutsche Wertpapierbank AG, the Swiss Hospital Consortium AR, the tool manufacturer LUX or the Robert-Bosch Hospital who developed and introduced their portal in a fraction of the time usually required and considerably accelerated in-house procedures by using Intrex Xtreme. See for yourselves how these techniques can be used in your own company.

Information is a major prerequisite for business success nowadays. However, many companies have a surplus of unstructured information content scattered over several different departments. This can be remedied by an Enterprise Portal which, as an information and integration platform, enables uniform access for all authorized parties.

An Enterprise Portal is introduced and operated in a complex environment. Those responsible for the planning and execution have to consider a number of organizational and technical aspects on the one hand and also have to take the costs into account in their choice of a suitable software on the other hand.

This White Paper is intended to support companies with this. It describes how the requirements for a modern Enterprise Portal can be implemented efficiently and at low-cost and therefore offers an orientation aid.

The White Paper first outlines the functions and potentials of an Enterprise Portal in chapter 2. In chapter 3 the challenges which go hand in hand with the successful implementation of a modern Enterprise Portals are explained.

Chapter 4 shows companies how they can reduce the costs and resources in the development and operation of Enterprise Portals with the platform-independent software solution Intrex Xtreme:

- Reduction of the development time for portal projects by 90%
- Reduction of the soft skills of the portal developer
- Relief of the IT department by 40%
- Saving of license costs by using open source databases
- Saving by optimizing company processes and procedures of 60%
- Reduction of software license costs by up to 95%
- Reduction of portal license costs

At Deutsche WertpapierService Bank AG a uniform information platform was created for more than 1,300 employees at six locations with the Intrex Xtreme standard software. "Necessary properties such as security, state-of-the-art technologies or functionalities were just as present in Intrex Xtreme as in IBM or SAP for example," Michael Rech, IT Manager of the dwp Bank explains. "Decisive for me was the fact that we only need 10% of the normal time required for creating an application at the most," says Rech.

**2. The Enterprise Portal as an Information and Integration Platform**

Enterprise Portals have their origin in company Intranets but represent a further development of these. Enterprise Portals enable a uniform, fast, personalized access to information and contents. The respective user can access all internal and external information, resources, applications and services which are relevant for his area of activity (Single Point of Access) via the portal independently of time and place. The Enterprise Portal therefore simplifies co-operation within the company. It contributes towards optimizing processes and work procedures and improving internal communication.

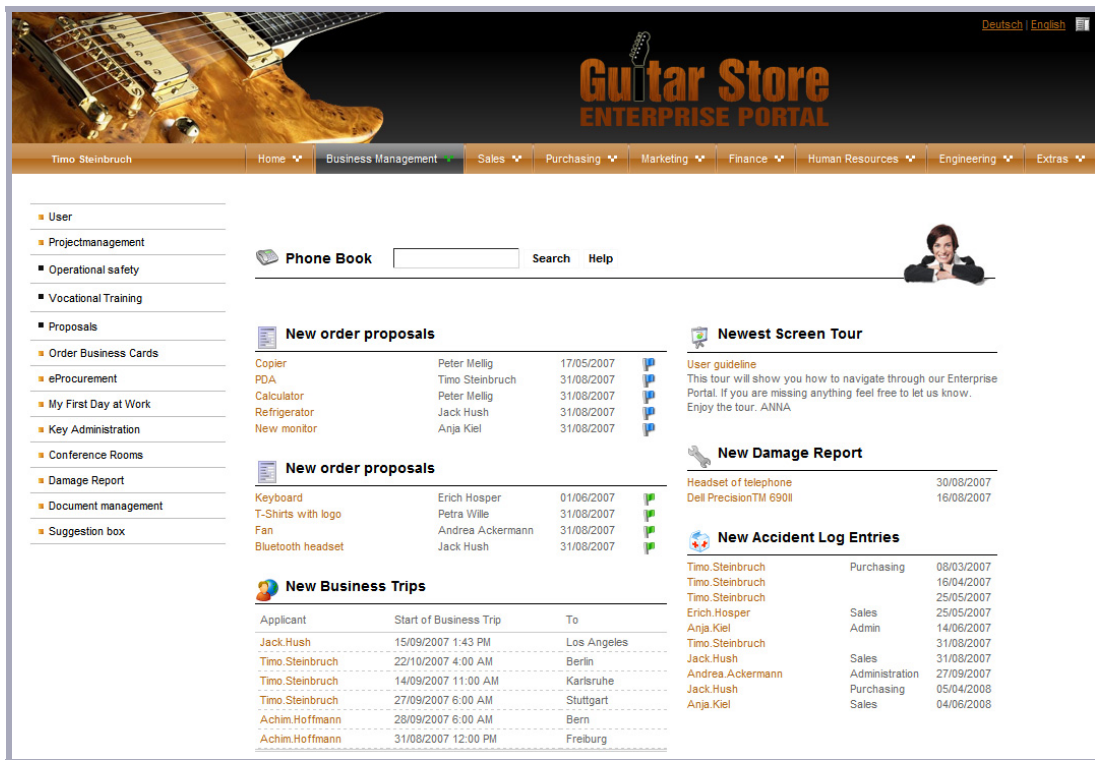


Fig. 1 A modern Enterprise Portal with integrated ERP data. A traffic light shows the current sales situation clearly and indicates urgent need for action.

The tool specialist Emil Lux from Wermelskirchen also recognized these advantages. In co-operation with QuinScape, a specialist for Web applications in Dortmund, a forum was created based on the Intrex Xtreme software that optimizes internal development processes. "At Lux this means that the knowledge which was formerly spread over many individual employees in the company is now integrated more efficiently in a development

process," Dr. Gero Presser, Managing Director of QuinScape explains. "The result is competent solutions which can be implemented quickly and therefore improve Lux's range of services."

In addition, Enterprise Portals create the necessary preconditions to integrate business partners into the company infrastructure. With the integration of customers, suppliers and partners, e-business applications such as the electronic handling of payments, quality data exchange, calling of material stocks, order processes or electronic freight tracking can be implemented conveniently. In this way the Enterprise Portal makes an important contribution to improving the communication with business partners and optimizing intercompany business processes.

In many branches the technical and organizational conditions of an Enterprise Portal are already an assumption. Companies who do not have these prerequisites must expect considerable disadvantages in competition with direct effects on market shares, sales and growth opportunities.

### **3. Challenges to the Successful Implementation of a Portal**

As with many investments the question of "make or buy" was also asked for the introduction of an Enterprise Portal. Companies have the choice of programming their own portal with PHP for example or using proven standard software. The development of an Enterprise Portal is a demanding integration project. Companies often estimate the project risks such as susceptibility of the system to errors, time scale for implementation and costs are often too optimistically when developing the portals themselves. This can lead to the project becoming a tiresome, time-intensive affair that generates higher costs than originally calculated. The project can also fail due to excessive adaptation to the individual conditions (customizing).

The decision in favor of a standard software, on the other hand, offers the advantages of a mature, practice-proven technology in connection with a clear cost structure as well as a fixed time scale for the implementation. At the same time there is still enough freedom and flexibility for creating individual business processes. When choosing a platform-independent standard software such as Intrex Xtreme there is also a guarantee of simple integration of the existing infrastructure into the Enterprise Portal.

"We see the platform independence of Intrex Xtreme as a great advantage," Johannes Dörler, Head of Information Technology and Organization at the Hospital Consortium AR. "Neither a certain server operating system nor a certain database or the office applications of a certain manufacturer have to be used to provide the full scope of functions of Intrex Xtreme". The Swiss Hospital Consortium AR consists of the two active hospitals Herisau and Heiden and the Psychiatric Center in Herisau. A common Intranet for the interdisciplinary workflow and interactive workflow applications was implemented based on Intrex Xtreme for the facilities combined in the consortium.

In addition Enterprise Portals are subject to constant change. Intrex Xtreme offers companies the opportunity to make adaptations of the portal to changes within the company or at business partners independently and autonomously instead of having to enlist expensive, external developers.

Enterprise Portals are developing rapidly. In addition to the classic output medium of the PC, access to the Enterprise Portal by mobile devices such as notebooks, PDAs or UMTS/WAP-capable devices will become an important factor in the future. The open architecture of Intrex Xtreme is capable of implementing future developments simply and therefore guarantees the future capability of the Enterprise Portal.

### **4. Reduction of the Total Cost of Ownership (TCO)**

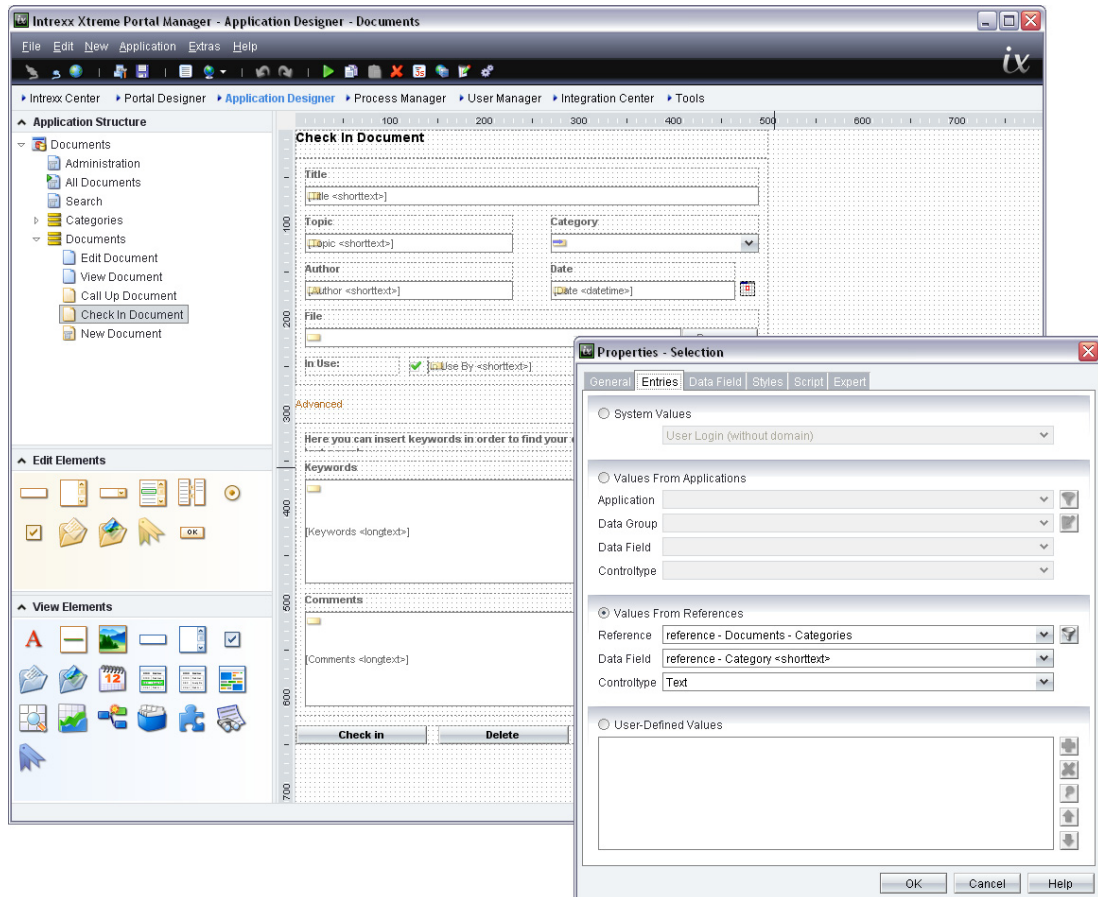
Intrex Xtreme reduces the total cost of ownership (TCO) for the development of Enterprise Portals considerably:

#### **4.1. Saving 90% of Time by Accelerated Development**

The development of a portal is always divided into the steps: strategy, analysis of requirements and economic potential, conception, implementation and introduction.

Whilst the phases of strategy, analysis of requirements and economic potential and introduction all involve the same amount of effort and expense in all portal projects, the great advantage of Intrexx Xtreme is in the conception and implementation.

Intrexx Xtreme offers the possibility of immediately implementing requirements by drag & drop of elements, automatic creation of database schemes, quick setup of navigation structures and linking to LDAP/ADS. This means that implementation of a specific application can already begin during its conception. In addition, conceptual weaknesses can be detected immediately and optimized without delay by the possibility of Rapid Prototyping.



*Fig. 2 The visual Application Designer of Intrexx. Clear property dialogs allow efficient settings.*

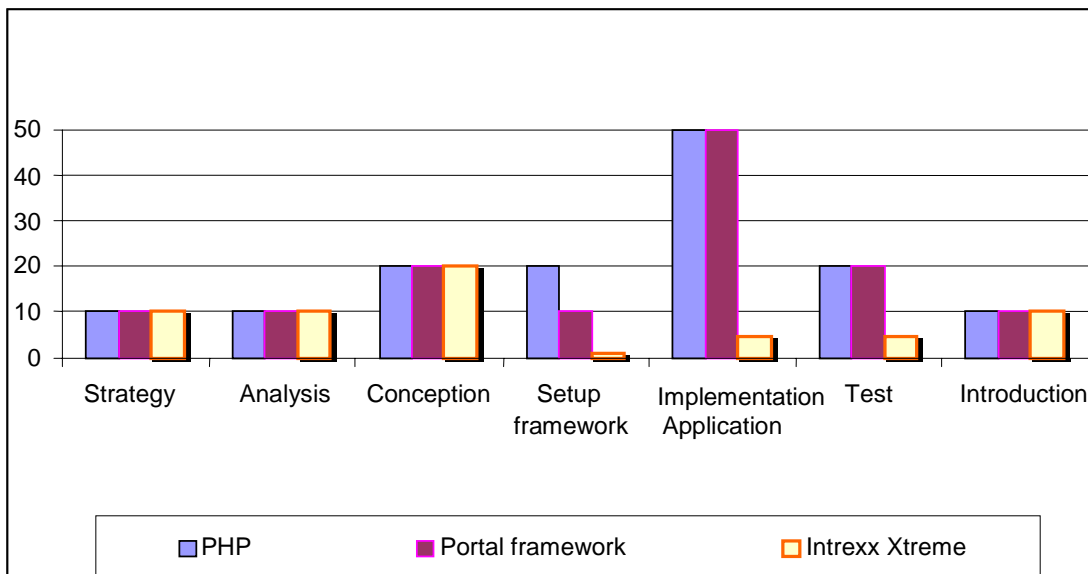
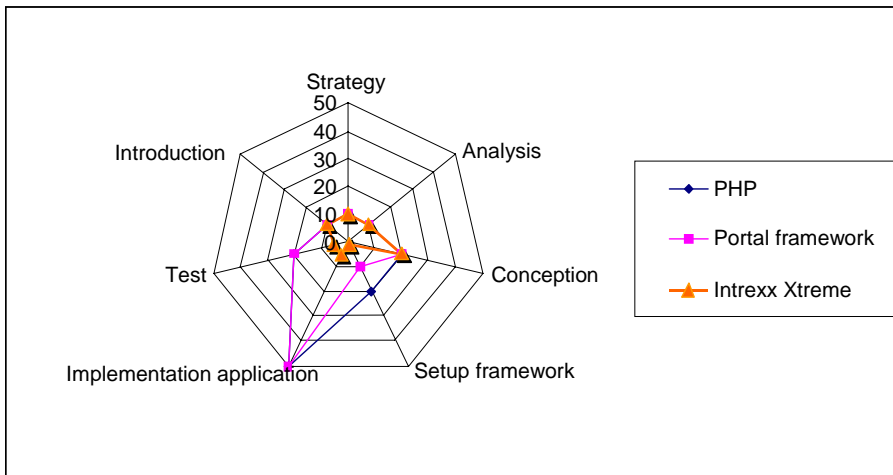
When using a PHP framework, basic requirements of the portal such as the user management, the synchronization with the existing LDAP directory, the setting up of a menu structure and the design and creation of databases, tables etc. usually have to be implemented first. The developer of a portal under Intrexx Xtreme is already performing the fine tuning of the applications and technical procedures at this time.

Even when using portal frameworks such as SAP Netweaver, IBM Websphere or Microsoft Sharepoint which can already largely project the basic tasks such as authentication and authorization, the creation of applications and the implementation of technical procedures is always the programmer's job and, for this reason, always demands a completed conception phase.

Since the development platforms only provide rudimentary support, the implementation depends greatly on the skills and experience of the developer. Tasks such as the ensuring of interaction of different browsers and standards (cross-browser compatibility), the robustness of the application, operational reliability and data storage as well as the quality assurance of every created application involve an enormous additional effort in terms of time.

When using Intrex Xtreme these requirements are already met by the standard framework. Central topics such as data security or personalized and secure access to applications or the application data are guaranteed.

In most cases the effort to test the security of the Enterprise Portal against attack and unauthorized access to information is not possible or very difficult in an own development. Intrex Xtreme already offers this security in the creation of a prototype. The following graphics illustrate this advantage of speed:



*(Figures in days)*

**4.2. Savings by simple handling**

Thanks to the transparent application structure, Intrex Xtreme allows even persons without basic programming knowledge to take over the tasks of a portal administrator and application designer in a very short time.

With Intrex Xtreme the projection of technical procedures requires less the knowledge "how" something is implemented and more the knowledge "what" is to be implemented. This means that employees from departments who already have an affinity for IT can become application designers by specific training (for example at the United Planet Academy).

In this way the dependence on individual internal developers and external service providers is reduced. This concept also increases the operational reliability and the mainte-

nance friendliness of the portal because the program code of an individual solution is hard to maintain. If the responsible developer leaves the company after long years of service, all changes have to be integrated into the existing code. Intrex Xtreme does not have this problem because the application structures are shown clearly in the Application Designer and employees are soon able to adapt the application structure to new requirements.

**4.3. Faster Availability of Applications by Outsourcing of Development to Specialist Departments**

A portal also covers the entire department-specific requirements including tasks such as the product life cycle management, the guarantee management or leasing management in addition to the interdepartmental applications (investment proposal application, application for leave) and purely information applications (newsletters, forums, FAQs). These tasks usually account for 80% of a portal.

Whilst these applications are developed conceptionally in the department, their implementation is covered by external service providers or the software specialists from the IT department when a non-Intrex portal is used.

In addition to the disadvantages of this method already described in 4.1, a longer development time is the result. In addition, the implementation of the applications is not a priority but has to take its place in the total tasks queue of the IT department.

The use of Intrex Xtreme and the fast learning of the Application Designer enables the specialist departments to implement their requirements autarchically and to adapt the applications to changing requirements quickly even in the future. In addition to an increased level of acceptance, the future safety of the technical applications is also ensured. The introduction of a portal based on Intrex Xtreme relieves the IT department by about 40 %.

20 % basic applications by IT
40 % special applications by IT
<u>40 % special applications by specialist department</u>
100 % applications

The simultaneous development in the specialist departments and IT means that the planned portal project is also completed much quicker. And the faster possibility for the employees of using the finished portal also creates a faster ROI.

**4.4. Optimization of Company Processes and Procedures**

Modern process-oriented portals such as Intrex Xtreme increase the efficiency of company processes by up to 60%. Existing business processes are largely automated and outsourced to the user. Using Intrex Xtreme's integrated process manager, workflows are modeled quickly and easily by events, decisions and actions which automatically trigger messages, monitors or distribution of business processes.

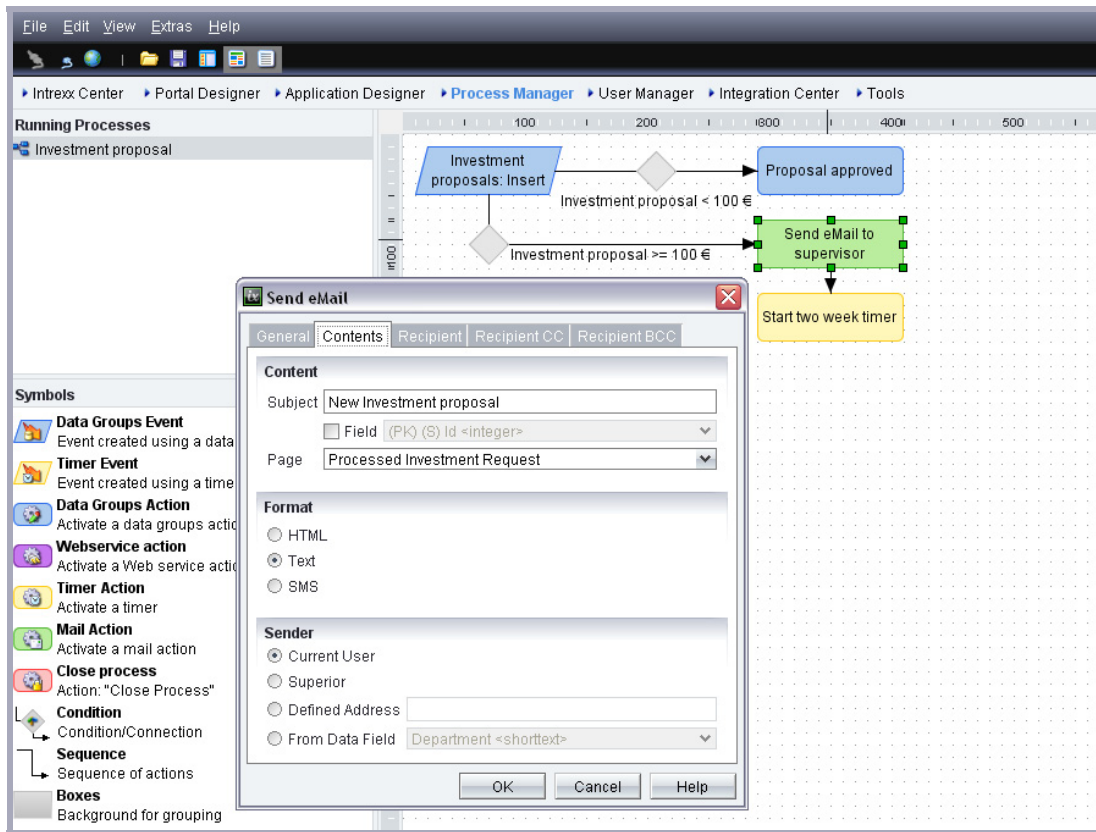


Fig. 3 The integrated Process Manager is just as easy to operate as the other modules of Intrex and allows fast results.

Almost all technical procedures and administrative activities can be created more reliably and quickly by automatic processes. The agility of the company is increased considerably.

The Robert-Bosch Hospital (RBK) in Stuttgart also made this discovery. In § 135 of the Social Code (SGB) health facilities are required to introduce an internal quality management. In order to meet these requirements and at the same time speed up the process of creating a quality management manual, the Robert-Bosch Hospital chose the Intrex Xtreme portal development software. "The auditor group was absolutely delighted with our quality management manual developed under Intrex Xtreme which successfully passed the supervision audit", Dr. Andreas Gerteis, Senior Doctor / QMB Thorax Center, Robert-Bosch Hospital Stuttgart.

**4.5. Saving License Costs by Using Open Source Programs**

Thanks to the large number of supported hardware and software platforms, IT can select the exact target platform for the portal for which the greatest know-how exists.

Intrex Xtreme also supports all common Linux distributions as well as Sun Solaris in addition to Microsoft Windows operating systems.

Existing databases in the company such as MS SQL Server, Oracle or e.g. an IBM DB2 can be used for the necessary database under the Web applications or the portals. Efficient open source databases are also available like PostgreSQL. This saves relatively high license costs in some cases. It makes no difference which operating system is used for running the actual portal.

The support of a large number of databases also increases the operational reliability and the fail safety because the optimum platform can be selected individually by the company and is not specified by the manufacturer of the portal environment. There is therefore no need to build up additional know-how for a specific database system.

“A pleasing and not always obvious fact in information technology applications is that the costs for operating Intrex Xtreme are relatively low,”, Johannes Dörler, Head of Information Technology and Organization at the Hospital Consortium AR confirms. “The server runs practically without intervention, the user management causes no additional expense thanks to the integration in the Active Directory, copying updates has been extremely simple so far.”

#### **4.6. Saving of Software Licenses by EAI**

Enterprise Application Integration (EAI) is the most important task of a portal next to Employee Self Services and the projection of technical procedures. Only the integration of existing applications such as ERP, CRM or HRM supplies the portal with the vital information of a company and creates the transparency demanded today.

The Business Adapter of Intrex Xtreme allows SAP Business Suite and Business One to be integrated into the portal for example. The external data integration also offers the possibility of accessing all database-supported software products. This provides all employees with personalized and role-related information. For example, sales staff has article information in real time at their disposal, employees in Support or Customer Service have access to all customer-relevant information, and service technicians can view and print out pending repair orders from their homes and write up the service report in the evening.

Another central aspect is the saving potential on costs for software licenses: The integration of external applications by external data integration is unbelievably simple and can save up to 70% in license costs.

Instead of equipping all employees with ERP licenses and holding expensive training courses, all employees can access important customer information with the external data integration of Intrex Xtreme. The departments have masks at their disposal which are adapted exactly to the specific application. This ensures optimum usability in connection with minimum training expenses and, above all, without further license costs. However, the license conditions of the ERP manufacturers and the implemented ERP database may have to be taken into consideration.

If average license costs of an ERP client of 2,000 Euros are assumed, a saving in comparison with Intrex of 1,895 Euros or almost 95% is achieved!

#### **4.7. Reduction of the Portal License Costs and the Operating Costs**

Whereas almost all providers of portal environments such as Microsoft Sharepoint or IBM Websphere exhibit an obscure variety of additional modules and little transparency in the license policy for the pure license costs of a portal, United Planet pursues a course of offensive, clear licensing. Every user who receives personalized access to the portal will need an Intrex license for 105,- EUR. A processor license for unrestricted access costs 44.100,- EUR. In addition the operation of a backup and test system is already contained in the license prices.

The most important difference to other manufacturers, however, is in the operating costs of the portal: There, adaptations resulting, for example, from a change in a technical procedure, generate additional costs. A software specialist has to be contracted with the job for every simple extension of a form mask by two new input boxes, for example.

This incurs the following expenses for the portal operator:

- Creation of a specification with the desired changes
- Securing offers
- Finding a time slot for performing the action
- Making the adaptation
- Acceptance process for the adaptation
- Settling the costs for the adaptation

Intrex Xtreme on the other hand enables a simple adaptation of existing applications. The adaptation process can be reduced to about 5 minutes and is performed within the department. The operating costs for the portal are therefore reduced considerably.

The possibility of creating one's own demanding applications with Intrex Xtreme flexibly and at low costs was an important factor, in addition to the platform independence, for the regional authorities in Belzig (Potsdam-Mittelmark district) in the selection of the software solution for setting up an employee and communal portal. "The price and performance of Intrex Xtreme are in a very good ratio", Dietmar Thalmann, Regional Manager ADV in the Potsdam-Mittelmark district confirms.

**5. Conclusion**

With the platform-independent, open software solution Intrex Xtreme the costs for the development and operation of Enterprise Portals can be reduced considerably. Basic requirements can quickly be met by extensive functions in the standard framework and the development phase accelerated on the whole.

Other time and cost savings result from the simple, transparent handling with which employees are able to take over the tasks of a portal administrator or application designer in a very short time even without special programming knowledge.

In addition, the simple creation and maintenance of applications in the specialist departments relieves the workload on the IT department, reduces the costs for operating the Enterprise Portal and prevents dependence on individual developers or external service providers. Companies therefore have a low-cost and effective solution with which to implement Enterprise Portals conveniently and successfully.

**6. About the author**

Tanja Möhler studied Communications Sciences in Münster and Mainz. After gathering experience in the support of technology companies in various PR agencies, she decided to go independent in 2001. Since then she has worked intensively with IT and technology topics as a text & communications freelancer. Her main interest is in software solutions for company use and all matters concerning IT security. She also has special know-how in Document Related Technologies (Business Process Management, Portal Technologies, EAI) and the legal aspects of IT. Publishers and companies admire her sound technical expertise and her ability to present complex technical contents comprehensibly to a broad public.

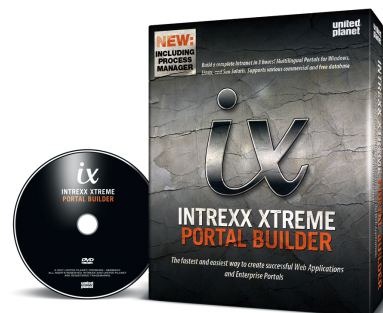
Her clients include the IDG Publishing House in Munich.

**Contact:**

[tanja.moehler@t-online.de](mailto:tanja.moehler@t-online.de)

**7. About Intrex Xtreme**

Intrex Xtreme is an **integrated platform-independent development environment** for fast, simple creation and management of, for example, multi-lingual **Enterprise Portals, Customer Portals or Web Applications**. Intrex is **easy to learn** and requires no programming knowledge. A portal is created according to the drag and drop principle. Anyone who can create an Excel spreadsheet can also create applications and forms such as a an application for leave.



Intrex can be **set up quickly** thanks to countless ready-made templates and allows a complete portal or intranet to be set up in no time.

Intrex is **complete**. It has everything you need to develop and successfully operate an efficient portal.

**Intrex Xtreme contains (excerpt):**

- Application Designer for application and form creation
- Layout and menu designer
- Business Process Manager
- Web Service orchestration
- Complete user management with LDAP link
- Data Integration Center for integration of external data sources
- Full text search engine
- Link integration for integrating external Web sites
- Various tools for convenient administration of the portal

Intrex is a **standard software**, very frequently installed and therefore very **favorably priced**. The system basically consists of two parts:

**Intrex Xtreme Portal Manager:** It is installed on any client or on the server and possesses all the components for developing and managing layout, menu or applications. The setup of the users with the rights to the respective applications of a portal also takes place in the Portal Manager of Intrex Xtreme.

**Intrex Xtreme Portal Server:** It is installed on a server and controls all transactions of the created web applications and portals. It monitors the rights of the users within the transactions, controls the entire business logic operations and governs access to the data sources.

**The Intrex Xtreme Portal Manager is basically available free of charge for downloading.** It can already be used for developing any Web applications and portals without license costs being incurred. The download also contains the full Intrex Xtreme Portal Server for test purposes. All the functions of Intrex Xtreme can be tested without restrictions with the Intrex Xtreme Portal Server. The Portal Server runs in demo mode without a valid user license and creates the appropriate messages in the browser. A maximum of five users can be created in the user database in the demo mode.

The appropriate user licenses for the Intrex Xtreme Portal Server are necessary for using in a productive environment for operating the application or the portal.

Different license sizes including a processor license are available. Intrex Xtreme adapts to the transparent licensing of all sizes of company.

Complete solutions for the management of company processes are also available. These complex Web Applications are called Studio Solutions. They are usually already contained as application templates in the Intrex Xtreme Portal Manager but require a separate license in case they are used productively. This is granted by a single server license regardless of the number of users.

An optional service and maintenance contract constantly guarantees state-of-the-art technologies and releases and offers efficient support by United Planet.

**The Intrex Xtreme Portal Manager is available as free download at**

[www.unitedplanet.com](http://www.unitedplanet.com).

**8. About United Planet**

With Intrex Xtreme, the software vendor United Planet is counted among the market leaders in the segment of private mid-size companies, public administrations, and organizations in Germany. With this sector-neutral standard software, intranets, enterprise portals, and web applications can be created and run with the most modern of functions extremely quickly. Creating a portal with Intrex Xtreme can be made to exact specifications and can be constructed from already existing components. Several thousand businesses worldwide already run their business processes via an Intrex portal and profit thereby from immense cost savings.

United Planet is one of the few software firms that specialize exclusively on the development of portal software. In addition to development at the head office at Freiburg, Germany, a wide-reaching network of partners and consultants stand ready to develop individual solutions to optimize business processes for customers.

As one of the founding members of the market segment of complete, "out-of-the-box" and inexpensive intranets, the now internationally active company is a technological leader with its Intrex Xtreme software. This Java-based software is delivered completely on one DVD and runs on Windows, Linux, and Sun Solaris. Intrex portals make it possible to integrate third-party data from ERP solutions from almost any vendor (SAP, Microsoft, Sage, etc.); a Business Adapter assumes control of data modelling and user management for the corresponding software.

The integration of a Process Manager as well as a module for the orchestration of web services into the newest version of Intrex Xtreme software shows the central role that the portal software plays in an organization: out of the intranet of the past, the central processing hub of a business has developed. Out of the plain-looking browser interface with static contents, a living interface for all kinds of business applications and processes has sprung up. Quality, knowledge, and process management, as well as data administration, is just some of the many solutions ready today.

Intrex and United Planet have received more than 15 awards and innovation prizes internationally.

**Contact**

**Head Office**

United Planet GmbH  
Heinrich-von-Stephan-Straße 25  
79100 Freiburg  
Germany

Phone: +49 (0)761-20703-0  
Fax: +49 (0)761-20703-570

E-Mail: [info@unitedplanet.com](mailto:info@unitedplanet.com)  
Internet: [www.unitedplanet.com](http://www.unitedplanet.com)

**UK Sales Office**

United Planet Limited  
New Lodge, Drift Road  
Windsor SL4 4RR  
United Kingdom

Phone: +44 (0)845 003 9226  
Fax: +44 (0)1344 724 669

© January 2008. United Planet, Freiburg. All right reserved.