

CHRONOS SYSTEMS SOLUTIONS

Intranet Portal and Application development



Chronos Systems completed an intranet development project for a client active in the automotive industry. The project included the intranet framework and bespoke application development.

BUSINESS OBJECTIVES OF THE PROJECT

The business objective of the project was to create an intranet site for the IT department, which can be rolled out to the entire organization.

The maintenance of the site should be minimized; full-time Webmaster is not available.

The site should contain several non-business critical applications like:

- Employee register
- Project tracker
- Organization chart
- IT Inventory
- Resource Reservation
- News
- Survey

Some dynamically generated pages should be downloadable in PDF format.

THE PROJECT

The intranet site is considered a **portal site**, applications are running in distinct windows called as **portlets**.

Users are able to customize the look and feel of the site, put the most important applications on the main page of the portal.

Most of applications implemented within this project are based on **XML/XSLT** technology.

Employee register

This application lists all employees of the organization based on the on-line connection to the corporate LDAP directory. Search and filtering capabilities are also implemented.

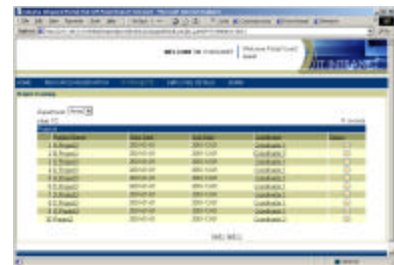


The picture of the employees and all other details are stored in the LDAP source, the application

collects these data and displays within an employee register portlet.

Project Tracker

The Project Tracker makes it possible to overview on-going and finished projects, the details and resource allocation of each project (objectives, milestones, etc) and the list of subprojects if available.



The displayed information is exported from a 3rd party tool in XML format.

IT Inventory

Simple inventory application for maintaining IT assets. List of inventory items are displayed with details of each item.

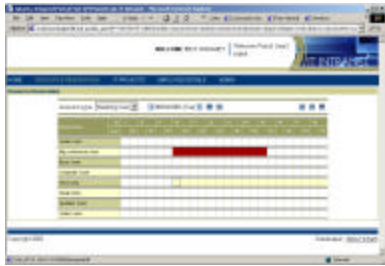
Search and filtering capabilities are also implemented.



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Resource Reservation

Complete resource reservation application, which makes possible to overview of the available resources and their availabilities and initiate new reservations.



An authorized user can administer the list of resources and their details. The type of resources is not restricted it can be a meeting room, pool car, pool laptop, mobile phone or other resource.

Single and recurring reservations are possible. Recurring reservations can be daily or weekly.

In case of a reservation conflict, a workflow process is started and an authorized user is notified automatically. Based on the decision, the selected resource will be reserved while the other(s) will be rejected.

Organization chart

Organization charts are generated dynamically based on the organization hierarchy stored in the corporate LDAP store.

The navigation in the chart up and down in the hierarchy is possible.

News

This application displays corporate internal news stored in XML format.

News stories are structured, each news has a Title, Abstract, Details, Publication date, related link and optional a related picture, which can be uploaded using the news administration portlet.

Survey

This application supports arrangements of surveys within the organization. Survey questions, answers and publication period can be administered on the site.

The results are available for the users upon completion of the survey form.

System architecture

The overall system architecture is based on Apache **Jetspeed** portal extension and **J2EE** standard, using JSP, JDBC, JNDI and servlets technology.

For XML rendering **Apache Cocoon** extension is used.

Operational Environment

The project was implemented on the following platform based on the following Software Architecture.

Operating system: SUN Solaris 7.0

Application server: SUN iPlanet

Java Runtime: j2sdk-1_3_1

Database engine: Oracle 9i

LDAP server: SUN iPlanet Directory Server

Portal engine: Apache Jetspeed

XML/XSLT rendering: Apache Cocoon extension

Browser compatibility: Internet Explorer 5.0 and above, Netscape 5.0 and above

User/group management

The system is integrated with the corporate LDAP directory; users, roles and access rights are managed in a centralized place.