USoft Product Information
USoft Web Designer

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Smart Web Page Design for User Interaction with Data

The Problem with Data-Intensive Web Pages
Creating web pages designed for users to interact directly with back office data can be a challenge. You need to connect two different worlds:

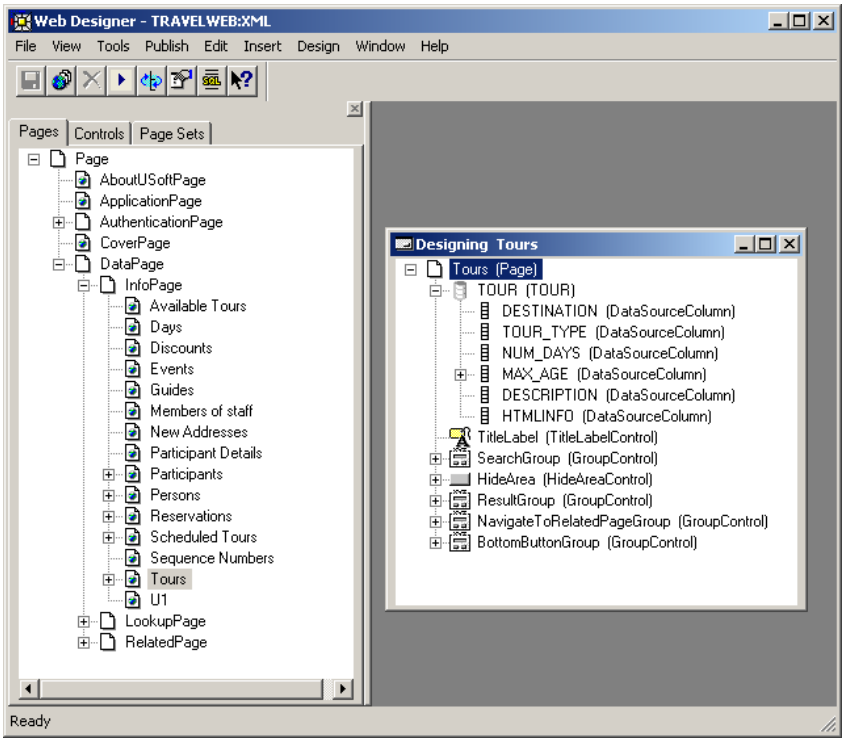
- Web page design is part of multi-media interface design and requires artwork and content management. Connection to data sources is typically achieved through fairly low-level programming and hence is labor-intensive, especially in maintenance phases.
- Back office data management is governed by legacy databases and applications, by standard ERP or CRM packages, and by 4GL application development tools. For most of these, browser technology is not a central concern.

The USoft Web Designer Solution
With USoft, back office data and applications are declared and combined to form a layer describing business logic.

On this basis, richly functional web pages are generated. In these pages, users can directly access, enter or change data from various back office data sources, or feed data to back office applications.

In USoft Web Designer, you point-and-click to customize user interaction with data. You change data sets, prompts, buttons and navigation structures to match typical user group tasks.

Finally of course, USoft pages are embedded in your web sites with the help of CSS style sheets, design tools, and runtime contents management.



Web Page Generation
Even in state-of-the-art web site design today, too much time is spent programming the interaction with back office data at web page programming level (in ASP or JSP code for example).

The main drawback of this approach is that data interaction does not really depend on web page or web site design. More fundamentally, it depends on the logic governing your back office data and applications.

USoft allows you to concentrate on data logic, and automatically generate web pages that have all the access, query, data entry and change functionality connected to that data logic.

All data transfer is XML-based. USoft web pages can be customized using XSLT transformations and CSS style sheets

Back Office Integration
USoft has specialized design tools that are able to present back office data in ERP applications (such as SAP) or legacy databases (such as CICS) as if it were data stored in a new relational database table. This approach offers great flexibility to those who wish to disclose, re-use and re-combine existing data or applications without dismantling them. It also creates a clean mid-office layer from which it is easy to generate new default web pages.

Data integrity can be tightly coupled (transaction-based) or loosely coupled (message-based or enforced by a batch scheduler).

Far from being superficial low-level “glueware”, USoft allows you to achieve a high level of independence between web site design and back office architecture.

Technical Description
Browsers
Supported browsers are Microsoft Internet Explorer 5.5 and FireFox 1.5 onwards. A client-server MS Windows 9x/NT option is also available (for a client, at least 32 MB of RAM is required).

Web Server
USoft runs on MS Internet Information Server (IIS) and (tomcat) JSP Server).
The solution is minimally dependent on ASP and JSP technology and uses the USoft Page Engine to handle the browser requests. This component can run under Microsoft Transaction Server (MTS), or an Enterprise Java Beans (EJB) platform and uses Rules Engines running under the USoft Application Server. High scalability is achieved by using Rules Engine pooling and component pooling under MTS or EJB.

Application Server
The USoft web application server runs on Windows 2000, Windows XP, Windows 2003, RS6000/AIX, Sun/Solaris 6, Sequent, and HP UX. Linux is forthcoming. Supported databases are Oracle versions 10 and 11, MS SQL Server up to and including SQL Server 2008 are supported by USoft 8, Sybase 11 to 12.5, Solid Flow Engine 3.7 to 4.5, IBM DB2 and ODBC compliant data sources.

Design-time workstations
For design-time workstations, PCs with, Windows 2000, Windows XP, or Windows 2003 are recommended. USoft supports multi-user concurrent access by default. Each workstation should be equipped with at least 200 MB of disk space for USoft software and at least 512 MB of RAM for design-time processing.

Third-party connectivity
USoft connects with:

- Any MS automation server, Java-based (e.g., EJB) or COM+ object layer, or Tuxedo server for rules-based interoperability with components (OO method invocation).
- JMS message server / MSMQ message queue handler / BizTalk for XML-based data exchange.
- Any MS Office and ODBC/JDBC Level 1 compliant additional data sources for direct (active) data access.

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- Low-effort, generated web pages for user interaction with back office data.
- Disclosure of SAP, ERP, legacy data to the web.
- Solution open to XML-based web design and content management.
- Interoperates with Microsoft products and components and with J2EE.