



s.a. OFFIS n.v.

Example project: Région Wallonne DGEE site

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The Région Wallonne DGEE site

- n Ministère de la Région Wallonne (DGEE)
 - site with continuously updated information on the Walloon economy
- n Background documents + factual data from 3 databases:
 - **Midas**
 - public incentives available to firms located in the Walloon Region
 - **Industrie**
 - contact details of Walloon manufacturing companies (> 4 workers)
 - **Sous-traitance Métal**
 - contact details of Walloon metal subcontracting companies (> 4 workers)
- n Goals:
 - **reuse data** from existing databases (WinDev on CD-ROM)
 - **more frequent update** and better availability of database contents
 - **document-like interface** for accessing databases+legacy documents



The Région Wallonne DGEE site

- n The challenge: to seamlessly integrate
 - **factual data** from 3 existing databases
 - **background documents** from a file-based document store
- n Requirements:
 - displaying query results with background documents
 - easy end-user control over legacy document conversion
 - interactive conversion scheduling and site production cycle
- n The solution:
 - û “classical” CGI scripts (ODBC)
 - û Web server APIs (NSAPI, ISAPI)
 - û server-side embedded VBscript (ASP)
 - ü Java servlets

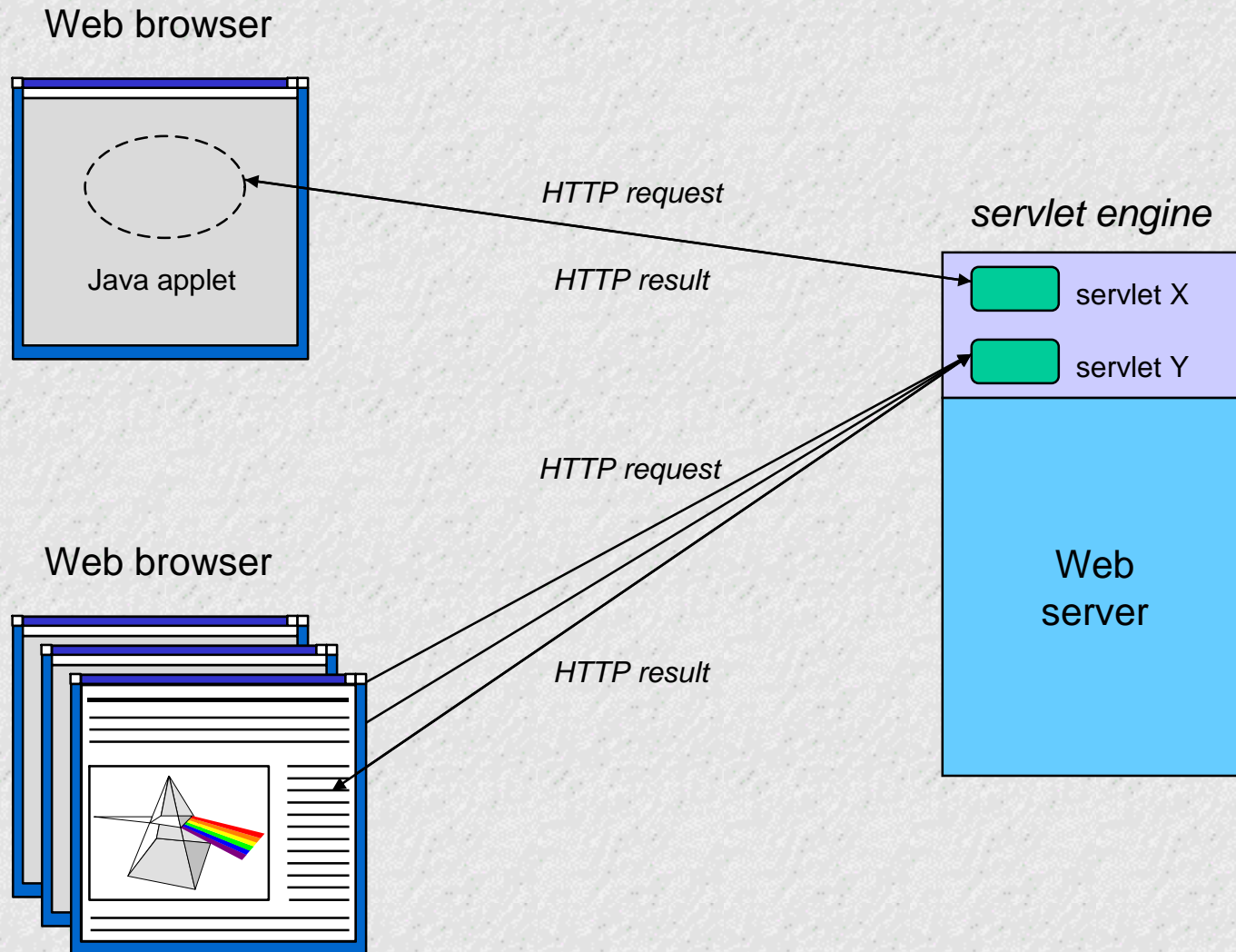


What are Java servlets?

- n Java programs which extend the functionality of Web servers
- n Applet is to client as servlet is to server
 - platform-independent
 - reusable, object-oriented code
- n Standard extension to JDK 1.2
 - part of the core Java API
 - development support in all major Java IDEs
- n Replacement for CGI scripts and programs
 - does not run in a separate process
 - stays in memory between handling of requests
 - only one single instance which handles all request concurrently
 - can be run securely by a servlet engine in a restrictive sandbox



How do Java servlets work?





Benefits of using Java servlets

n **Open solution**

- not limited to a proprietary technology
- based on an official standard (Java Servlet API 2.1)
- works with any Unix or NT-based Web server (IIS, Netscape, Apache)

n **Extensible solution**

- built-in complete programming language: Java
- integrates tightly with client-side (talk to applet, <SERVLET> tag, ...)
- capable of working with all present/future Java APIs (JDBC, EJB, ...)

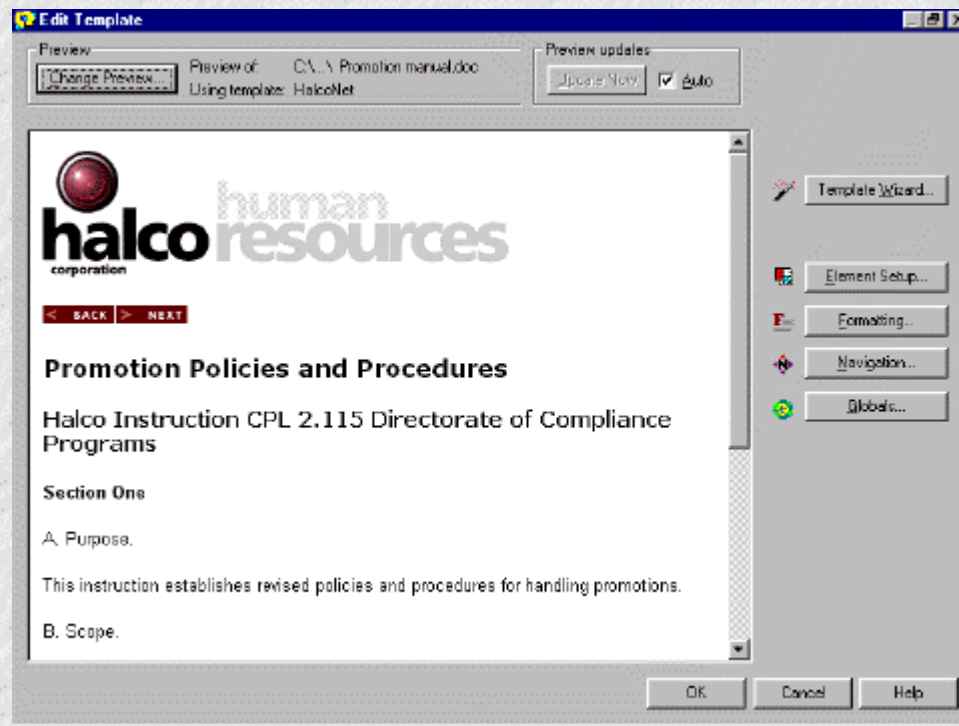
n **Cost-effective solution**

- easier to develop, debug and test
- faster prototyping, shorter development cycle
- side-effect: the development of reusable application logic



Conversion of legacy documents to HTML

- n HTML Transit Central: server-based version
 - template-based conversion
 - scheduled updates transparent to end-user



n conversion to HTML

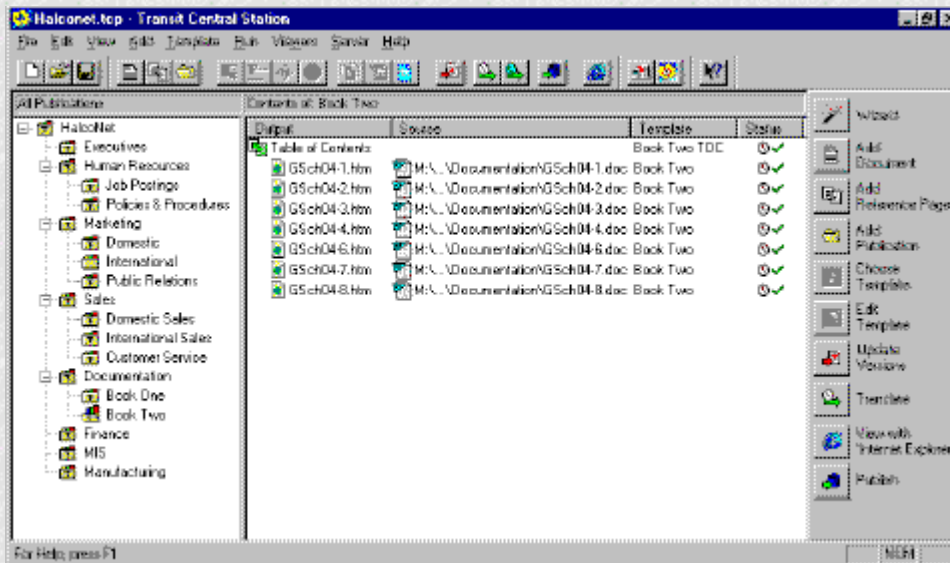
- wordprocessor
- spreadsheet
- graphics

n template-based

- WYSIWYG
- TOCs & indexes
- chunking & linking



Conversion of legacy documents to HTML



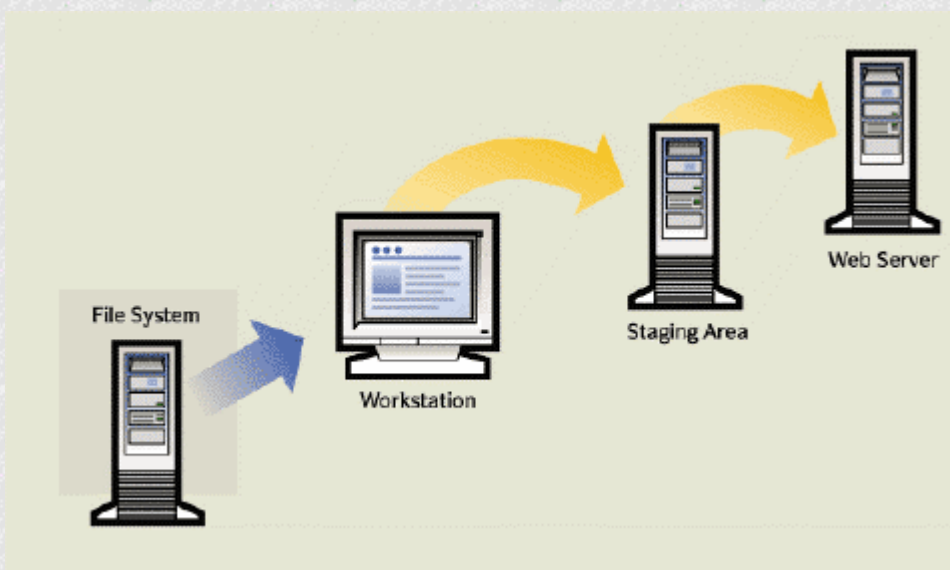
n document management

- schedule conversion of newly added documents
- perform post-processing on converted documents
- integrate documents into file-based document store

custom user interface on top of HTML Transit Central developed using SDK

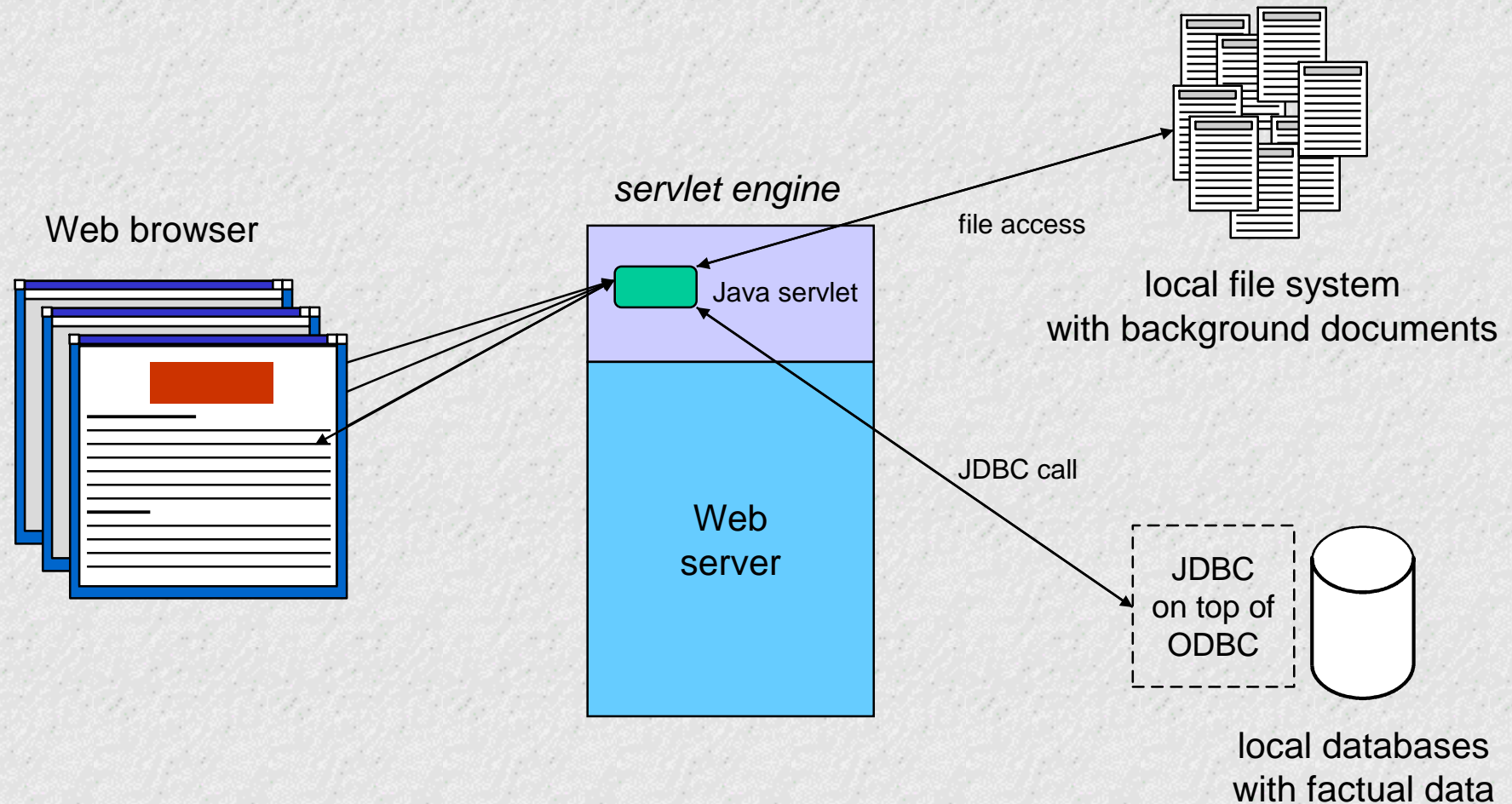
n site production cycle

- workstation:
document management
- staging server:
document verification
- production server:
document deploying





Intelligently combining data and documents





Intelligently combining data and documents

MIDAS - Search for public incentives in Wallonia

Incentive Number: **9**
Awarded by: **Walloon Region**
Category: **Research**
Validity: **15/07/1998**
Incentive Title: **Technological innovation support**

[1. Summary](#) | [2. Incompatibilities of](#) | [3. Timing of](#) | [4. Location restrictions](#) | [5. Industry restrictions](#) | [6. Size restrictions](#) | [7. Other restrictions](#) | [8. Rate of](#) | [9. Eligible expenditure](#) | [10. Application procedure](#) | [11. Points to](#) | [12. Useful addresses](#)

Section 1. Summary

To help mitigate the technical and financial risks run by SMEs seeking to innovate, the Walloon Region has devised an assistance scheme consisting in feasibility studies available as technical support: exploratory technical services provided with a view to testing hypotheses and working out a structured research or development.

Assistance is granted to enable a firm to conduct a feasibility study into new products, processes or services with the help from an external agency which provides technical services.

Dynamic table
of contents

Factual data
from database

Converted
Word document



Conclusions

n Document stores

- simpler document management, easier site production cycle
- legacy documents can be more easily integrated with legacy data

n Server-side Java: Java servlets

- superior performance and better scalability than (Fast)CGI
- cheaper, lighter solution than a full-blown application server
- a toolkit for building next-generation networked data systems

n Prerequisites for a successful use of *Java servlets*:

- a class library with reliable, well-tested support servlets
- choice of the appropriate computer platform and Web server
- experience with basic programming in Java, with HTML editors
- understanding how data and documents can be effectively combined