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Training

ANSAwise - Course Roundup [to (2-day) Building Applications with Distributed Objects]

Chris Mayers

Abstract

This is the “goodbye speech” to the 2-day variant of the course “Building Applications with Distributed Objects”. As well as a summary of the key points, it gives information for finding out more.

[Since different course presentations offer a choice of modules, this presentation may need to be adjusted to cover different key points.

This session also covers commercial products briefly under ‘finding out more’. This should be expanded as we build up experience, possibly into separate modules.]

APM.1661.01

Approved
Briefing Note

20th November 1995

Distribution:

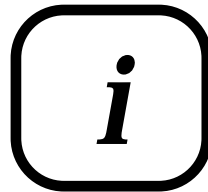
Supersedes:

Superseded by:



Building Applications with Distributed Objects

Course Roundup



...and Learning More...



About this course

- *This course has covered a lot of ground*
 - technical topics
 - open standards and products
 - applications
- *First, let us summarize some experiences from CORBA users*



Lessons learned from a typical project

- *Wrapping legacy systems does work*
- *It requires a detailed analysis to determine whether products are genuinely compatible*
 - even when they are specifically marketed as such
- *There is little support within products for system administration and application management*
 - few tools
 - few interfaces
- *Similarly, there is little support for testing distributed applications*



Tools and methods for CORBA

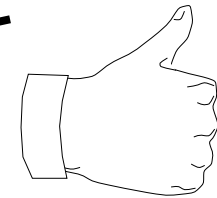
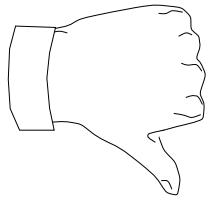
- *CORBA needs support throughout the development life-cycle...*
 - object analysis and design methods
 - development tools
 - performance and testing tools
 - applications management tools
- *... all conforming to open standards, allowing interoperability*



Object analysis and design methods today

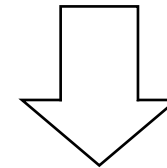
- *There are well over 20 object analysis and design methods...*
 - ...see survey reports produced by the Object Analysis and Design Special Interest Group of OMG
- *Many methods ignore distributed systems issues*

Development tools today



- tools limit size of application
- communications libraries out-dated (DCE support emerging)
- no agreed way to describe interfaces
- no support for application properties
- browsing limited
- tools are (still) closed applications

- some complexities transparent
- late binding and early type checking



Challenge



Performance and testing tools today

- *The database community takes performance very seriously...*
 - performance prediction and monitoring tools are improving all the time
- *...equivalent tools do not yet exist for CORBA*
- *The test department has always been ill-served with tools*
 - tools are appearing, but focus mainly on the user interface...
 - ...not on the server



Development tools tomorrow

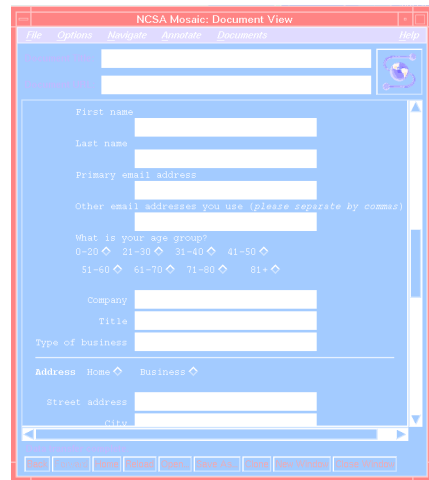
- *The situation is improving*
 - keep watching for product announcements
 - consider striking up an early relationship, and evaluating one or more tools in depth



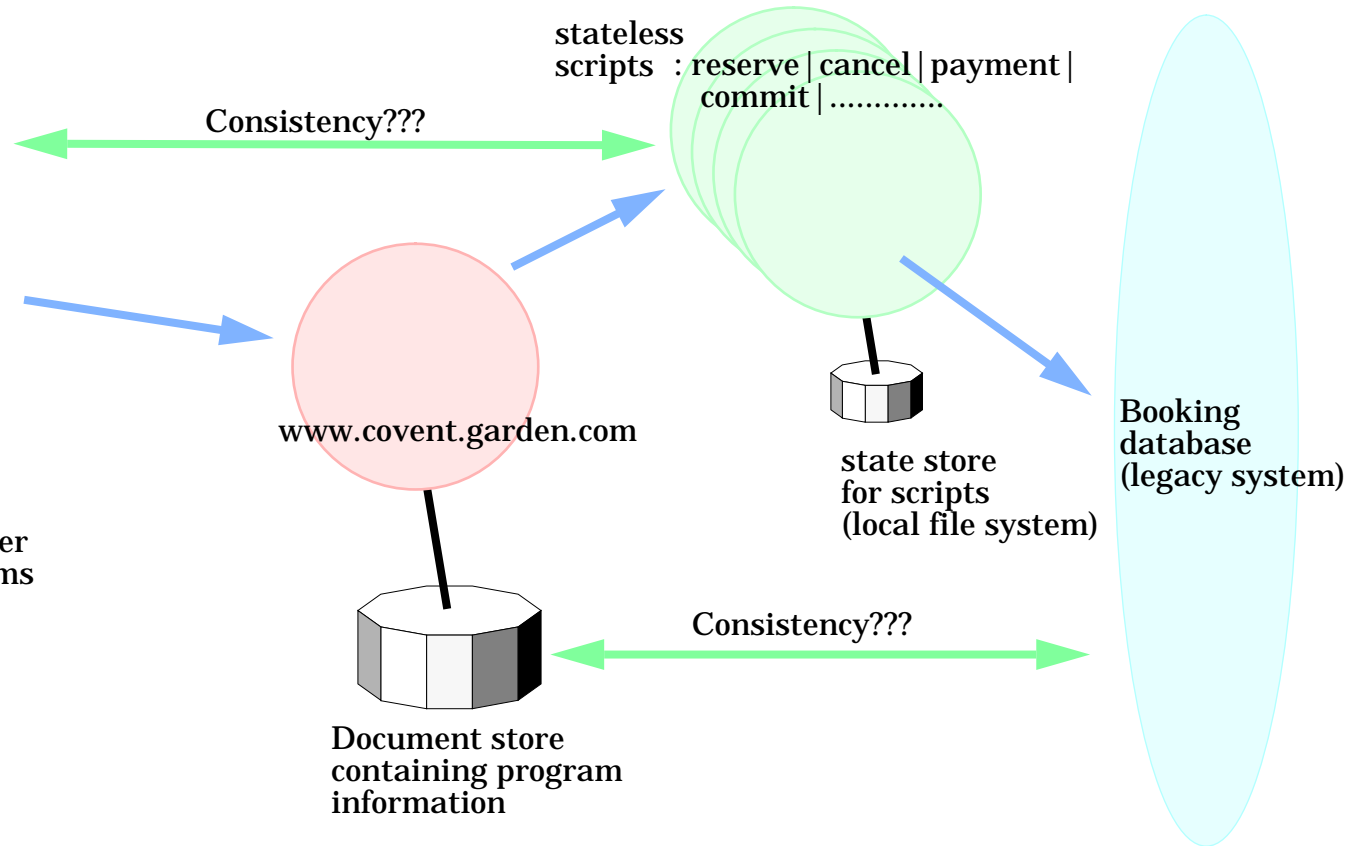
CORBA and the World Wide Web

- *The World Wide Web is ubiquitous*
 - accessing information is easy
- *The World Wide Web is difficult to program*
 - to manage information
 - to add new information services - essential for service differentiation
- *CORBA technology can help solve this problem*
 - exploiting encapsulation and distributed objects

Entertainment booking application



User interface: a web browser (e.g. Mosaic) using html forms





Supporting the entertainment booking application

- *For browsing forthcoming attractions, it is straightforward*
- *For booking tickets, it is much harder*
- *Managing the marketing material is also difficult*



Using the ANSA CORBA CGI IDL compiler

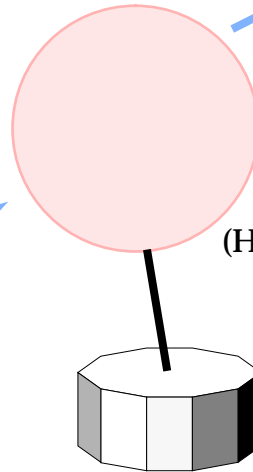


HTML forms automatically generated from IDL for script by stub compiler

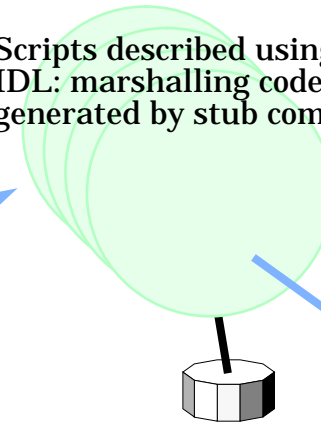
Scripts described using IDL: marshalling code generated by stub compiler



Bespoke user interface
Stubs generated from IDL
by stub compiler



(HTTP server)



(booking database)



ANSA Phase 3 and the World Wide Web

- *The World Wide Web uses its own HyperText Transfer Protocol (HTTP)*
 - built on TCP/IP
- *ANSA is building protocol gateways for both directions*
 - IIOp to HTTP: enables CORBA applications to access information on the World Wide Web
 - HTTP to IIOp: enables CORBA applications to be accessed directly from the World Wide Web
- *ANSA is also building a World Wide Web browser that uses IIOp as a native protocol*



More about CORBA?

- *For a general overview*
 - see *Object Management Architecture Guide (OMG)*
- *For a technical overview*
 - see *CORBA* by the Object Management Group
- *For Object Services*
 - see *CORBA services* by the Object Management Group
- *For a survey of object analysis and design methods*
 - see *Object Analysis and Design: Description of Methods* and *Object Analysis and Design: Comparison of Methods* ed. Andrew Hutt (OMG/Wiley)



More about distributed systems?

- *If you want one introductory book on both business and technical issues:*
 - *Client/Server Strategies*, by David Vaskevitch (IDG Books)
- *If you want one introductory book on both technical issues and products:*
 - *Distributed Computing: A Practical Synthesis*, by Amjad Umar (Prentice Hall)
- *If you want one introductory book on the technical issues only:*
 - *Distributed Systems Concepts and Design*, by Coulouris, Dollimore, and Kindberg (Addison-Wesley)
- *If you prefer a more theoretical approach:*
 - *Distributed Systems*, edited by Sape Mullender (Addison-Wesley)



Conferences and exhibitions?

- ***Object World UK***
 - organized by the **Object Management Group**
- ***ANSAworks***
 - the ANSA conference, organized by **APM**
- ***Object Expo Europe***
 - organized by **SIGS Conferences**



Latest state of play?

- ***Magazines***
 - ***First Class*** from the Object Management Group (OMG)
 - ***Software Futures*** from APT Data Services
 - ...and the general computer press

- ***Internet newsgroups***
 - **comp.client-server**
 - **comp.object**
 - **comp.soft-sys.dce**

- ***Internet ftp sites***
 - **ftp.omg.org**



How we can help

- ***ANSAware***
 - **technical support**

- ***ANSAworks***
 - **the ANSA conference**

- ***ANSAwise***
 - **training in distributed systems**

- ***ANSAweb***
 - **consultancy and advice**



Contacting APM

- *We are online on the World Wide Web!*
 - our URL is <http://www.ansa.co.uk/>
 - ... note the final /
- *E-mail address is apm@ansa.co.uk*

Stay in touch with APM