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Training

OO Technology (Intro to ANSA)

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Abstract

The business problem addressed is...

The technical problem created by that business problem is ...

The solution being offered is....

APM.1649.00.01

Draft

2nd November 1995

Briefing Note

Distribution:

Supersedes:

Superseded by:



OO Products and Technologies

- *Some are proprietary interfaces with standards-based lower layers*
- *Some are direct implementations of standards*
- *Some are products, with bundled services which may be proprietary or not proprietary*



Microsoft's Object Linking and Embedding (OLE) - user features

- ***Compound documents***
 - for example, spreadsheet tables inside word processor documents...
- ***Drag and drop***
 - ...select part of a spreadsheet table and drop into the workspace of another application
- ***Visual editing (in-place activation)***
 - ...edit the embedded spreadsheet table without leaving the word processor

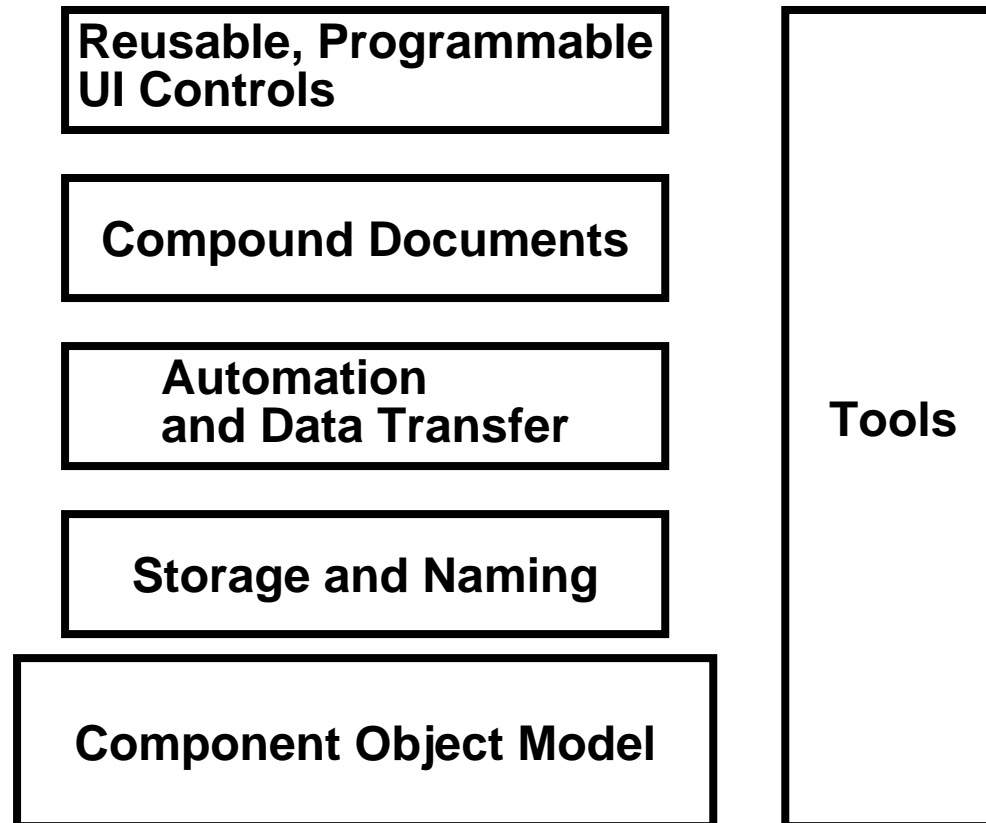


Microsoft OLE - application features

- ***Structured storage***
 - standard interfaces for applications to store and retrieve compound documents
- ***Automation***
 - applications and documents can be controlled by Visual Basic for Applications (VBA)
- ***Component object model (COM)***
- ***Uniform data transfer***



OLE Services





Microsoft COM and distributed systems

- *OLE 2 does not have support for distribution*
 - it uses LRPC (lightweight RPC) for communications; not networkable
- *OLE 2 has 'clients' and 'servers'*
 - but these are not networked
- *The Component Object Model (COM) underpins OLE 2*
 - COM will support heterogeneous networking
- *Microsoft and DEC are cooperating to allow their object systems to interwork*
 - using a specification called the Common Object Model...
 - ... helpfully, this is also called COM!
- *Distributed OLE will bring these technologies together (in 1995?)*



Component Integration Labs (CIL) OpenDoc

- *Originally developed by Apple*
- *Not tied to a specific user interface technology*
- *Based on CORBA*
- *Will interoperate with OLE 2*



Summary

- *The key concepts are encapsulation and type conformance*
- *Distributed systems allow you choose freely the front-end and tools technology*
 - Programming language
 - User interface/toolkit
 - Database
- *You can use object systems without an object programming language*
- *Distributed systems development is possible without objects*
 - but is harder work
- *For more on this topic*
 - see *Distributing Objects (TR.018)*