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# Retail Standards Update

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# Agenda

- **Device Drivers**
  - ▶ **OPOS**
  - ▶ **JavaPOS**
  - ▶ **UnifiedPOS**
- **ActiveStore**
- **ARTS**
- **XML -- the new kid on the block !**





# OLE for Point of Sale (OPOS) an update

- **Devices services using the MS Common Object Model (COM) . Current release is 1.4**
  - **Newest device is Credit Authorization Terminal**
- **Potential Future devices**
  - **USB**
  - **intelligent gas pumps**
  - **smart cards**





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# JavaPOS

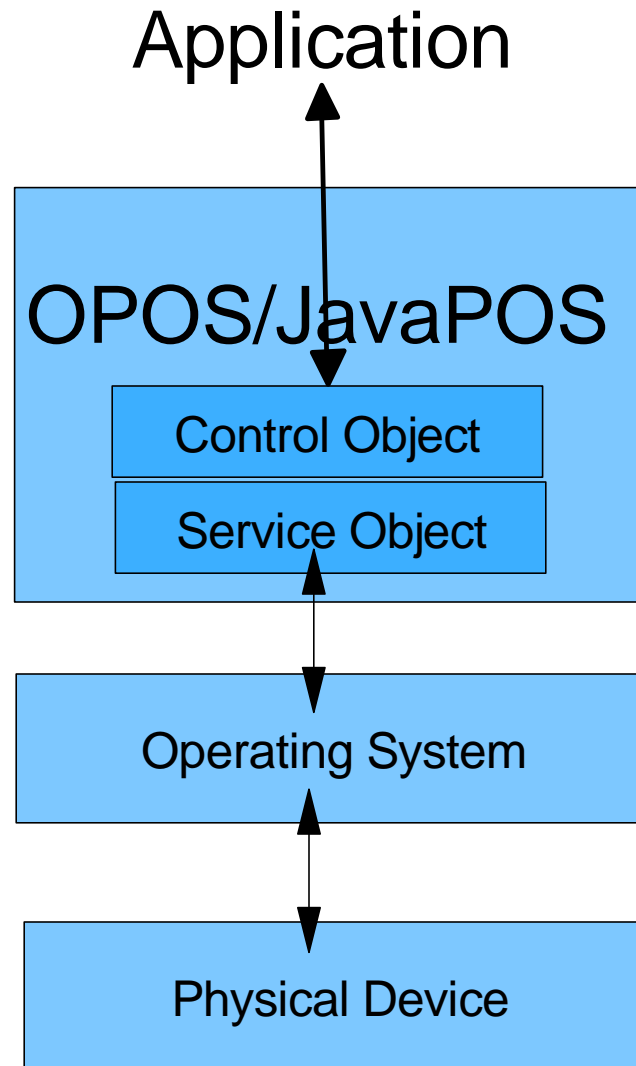
- **Yes, it's real !**
- **IBM is providing leadership on this committee**
- **IBM JavaPOS drivers available from IBM Web Site**





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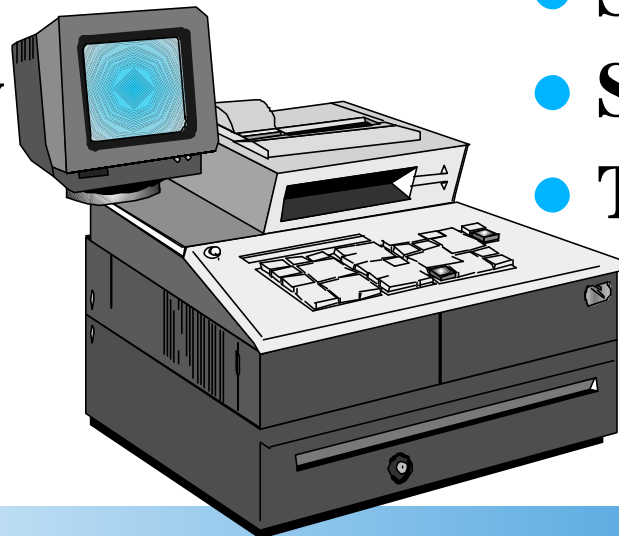
# Common Device Driver Architecture





## V 1.4 OPOS/ JavaPOS devices

- **Bump Bar**
- **Cash Changer**
- **Cash Drawer**
- **CAT**
- **Coin Dispenser**
- **Fiscal Printer**
- **Hard Totals**
- **Keylock**
- **Line Display**
- **MICR**
- **MSR**
- **PIN Pad**
- **POS Keyboard**
- **POS Printer**
- **Remote Order Display**
- **Scale**
- **Scanner**
- **Signature Captur**
- **Tone Indicator**





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## And now the latest -- UnifiedPOS !

- **Overseen by NRF ARTS Council**
- **Mission - Produce an application interface standard for peripheral devices that:**
  - ▶ **Defines a standard set of behaviors supporting retail usage**
  - ▶ **Is operating system independent and language neutral**
  - ▶ **Encompasses the OPOS and JavaPOS standards**
  - ▶ **Is international and extends across vendors, platforms, and retail formats**
- **IBM is providing leadership on this committee**

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# What was ActiveStore supposed to do ?

**Develop a framework for retail application integration in the Microsoft environment.**

## Core

## Team

- Campbell Software
- Fujitsu
- IBM
- ICL Retail Systems
- Microsoft
- NCR
- Ols y-Olivetti
- Com p ris
- JDA Software Group
- M atra Sys tem s
- Rad iant Sys tem s

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# United States Customer Advisory Board (CAB)



- ~~Penney International~~
- Coles Myer
- The Limited
- London Drugs
- Marks & Spencer
- McDonalds
- Morissons
- ~~Penney~~
- Nike Retail
- Starbucks Coffee
- Tricon Global Restaurants
- Whitbread

Reorganization of US CAB starting March 1, 2000





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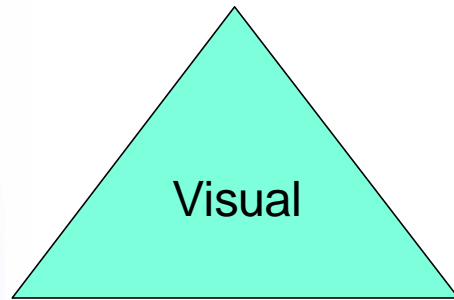
# ActiveStore 1999 Achievements

- **Charter document approved**
- **First RBI team completed work**
  - ▶ **rework needed**
- **Base System Services released in May 1999**
- **Position statement with ARTS established**
- **6 new RBI teams formed**
  - ▶ **room left for more volunteers !**
- **International Team members (UK, Japan)**
- **Strong European CAB team**

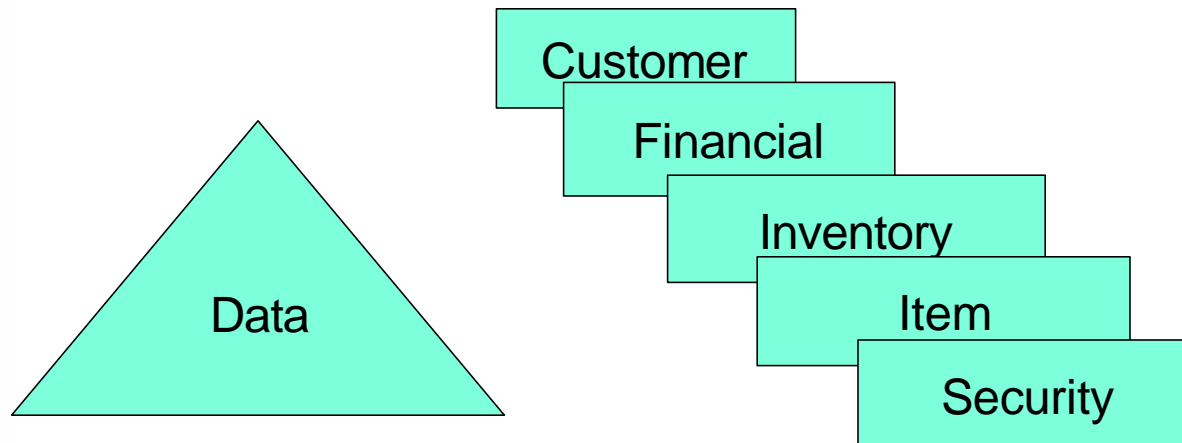
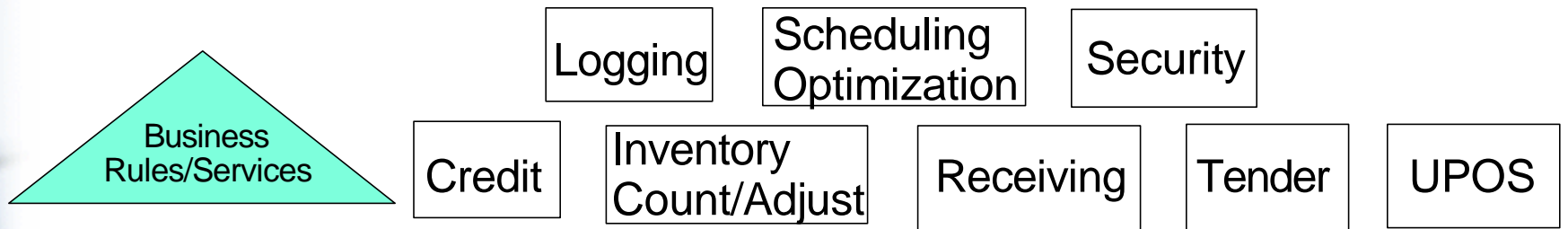


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# Previously Defined Architectural Building Blocks

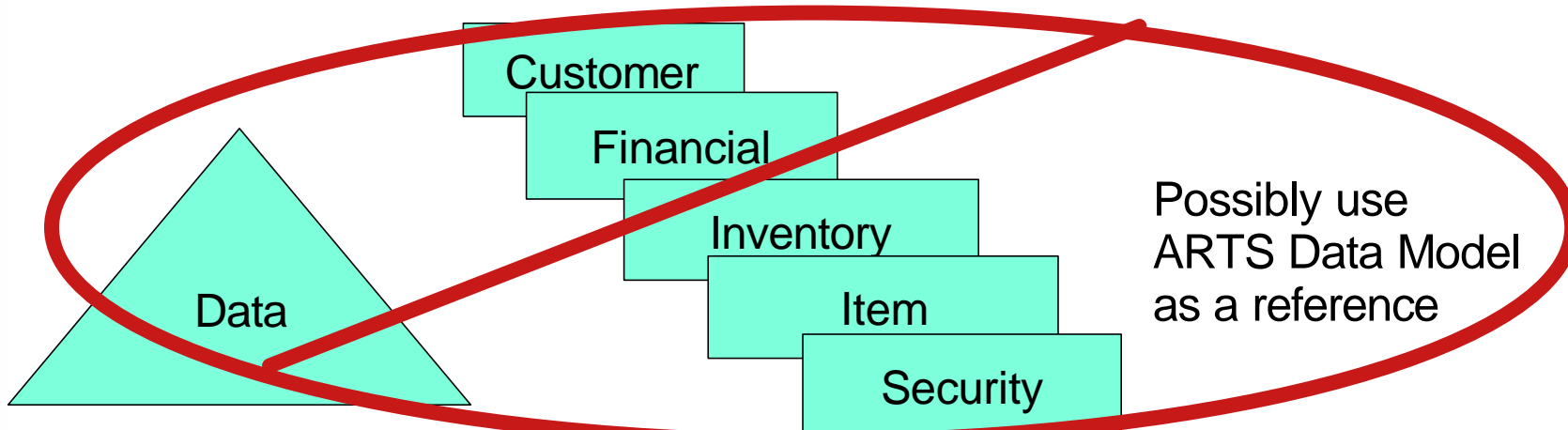
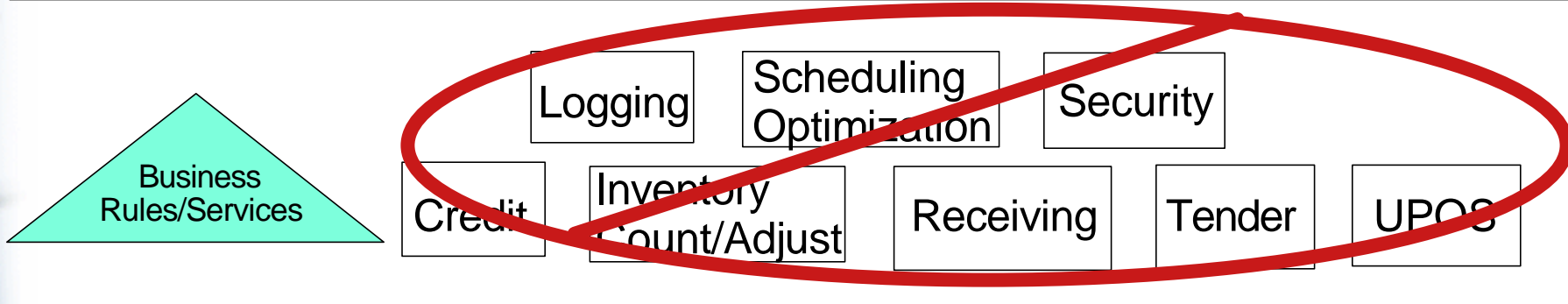
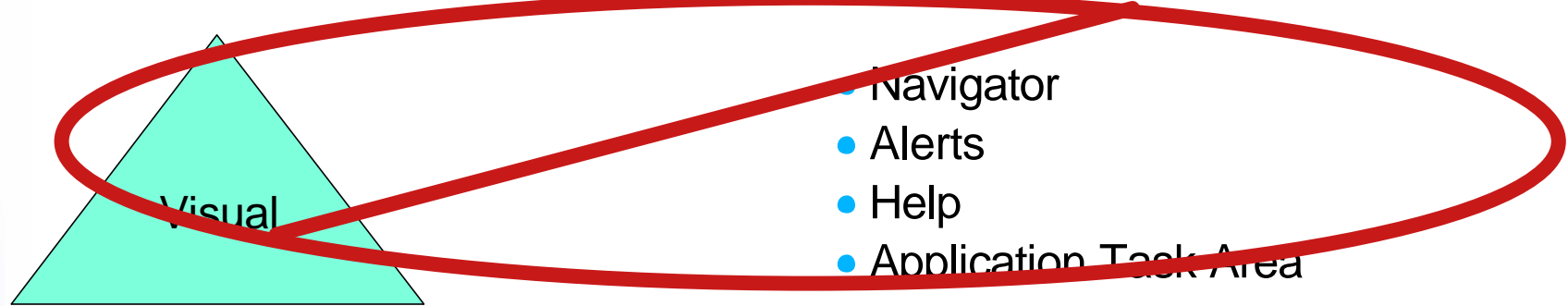


- Navigator
- Alerts
- Help
- Application Task Area



Possibly use ARTS Data Model as a reference

# Current Status of Architectural Building Blocks





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# User Interface Services

- The reference implementation is provided as a way for developers to see how the UI components can be used
- Emphasizes a common look and feel across all applications
- Rework needed as no one likes it

**Don't hold your breath waiting  
for this to show up !**





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## Base System Services

- Released May 1999
- Required Premier Software Development Support Contract
- WinNT only, not WinCE, Embedded NT
- No plans to enhance or make Win2000 certified -- however it may run on W2K
- Lots of bugs
- MS Consulting not recommending it

**Non-replaceable, non-portable**





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## ActiveStore -- Data Access

- Originally to be Data Objects - give common access to data that is shared between applications.
- Data Access is now TBD and a focus of MS Product division
- XML and ARTS offers more hope in this area

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# ActiveStore - Retail Business Interface Teams

- **Transaction - completed, rework via XML started**
- **Electronic Payment Systems**
- **Pricing**
- **Petrol Forecourt**
- **Customer**
- **Employee**
- **Financial**

**All RBIs to be done in XML !**  
**Portable APIs**





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# To get Current Status on RBI Teams

- Free to anyone
- [www.onelist.com](http://www.onelist.com)
  - ▶ ActiveStore is the subject Area
  - ▶ Anyone can subscribe

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# ActiveStore compliance

- **Still not defined -- no work in progress either**
- **MSFT not interested in administering compliance program**
- **Self-certification may be possible**

**However, with XML in the picture for the RBI's, compliance may be as simple as running an XML parser with the RBI DTDs !**

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# Association for Retail Technology Standards (ARTS)

- **A retailer led industry organization**
- **Part of National Retail Federation**
- **Operating System Independent**
- **Device Model for POS**
- **Data Model for in-store operations**
- **Recently hosted ForeCourt Standards Meeting**
- **Launching XML initiative called REDX**





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# ARTS Data Model - What's New ?

- **Release 2.0 - November 1999**
- **Updates include**
  - **Update to Party entity**
    - **abstract - Person, or an Organization**
    - **Party role updated**
  - **Documentation Cleanup**
  - **Attribute cleanup**
- **Compliance being defined**

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# ARTS - REDX

- **Retail Enterprise Data in XML (REDX)**
  - **Implement the ARTS Retail Data Model as XML schemas**
  - **Identify key retail business processes, their supporting systems and the messages that pass between them defined in XML.**
  - **Vendor certification**
- **Some overlap with ActiveStore**
  - **Same interests as Microsofts RBIs**
- **Currently participating: IBM, Sun, DataFit ...**





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# XML

# I told you so !







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# XML

- **Defines what data means**
- **Create your own tags**
- **Middle Tier server required**
- **Designed for internet technologies**
- **Documents MAY have a short life span**
- **XML Elements have attributes**
- **XML documents resemble traditional relational and object database data.**

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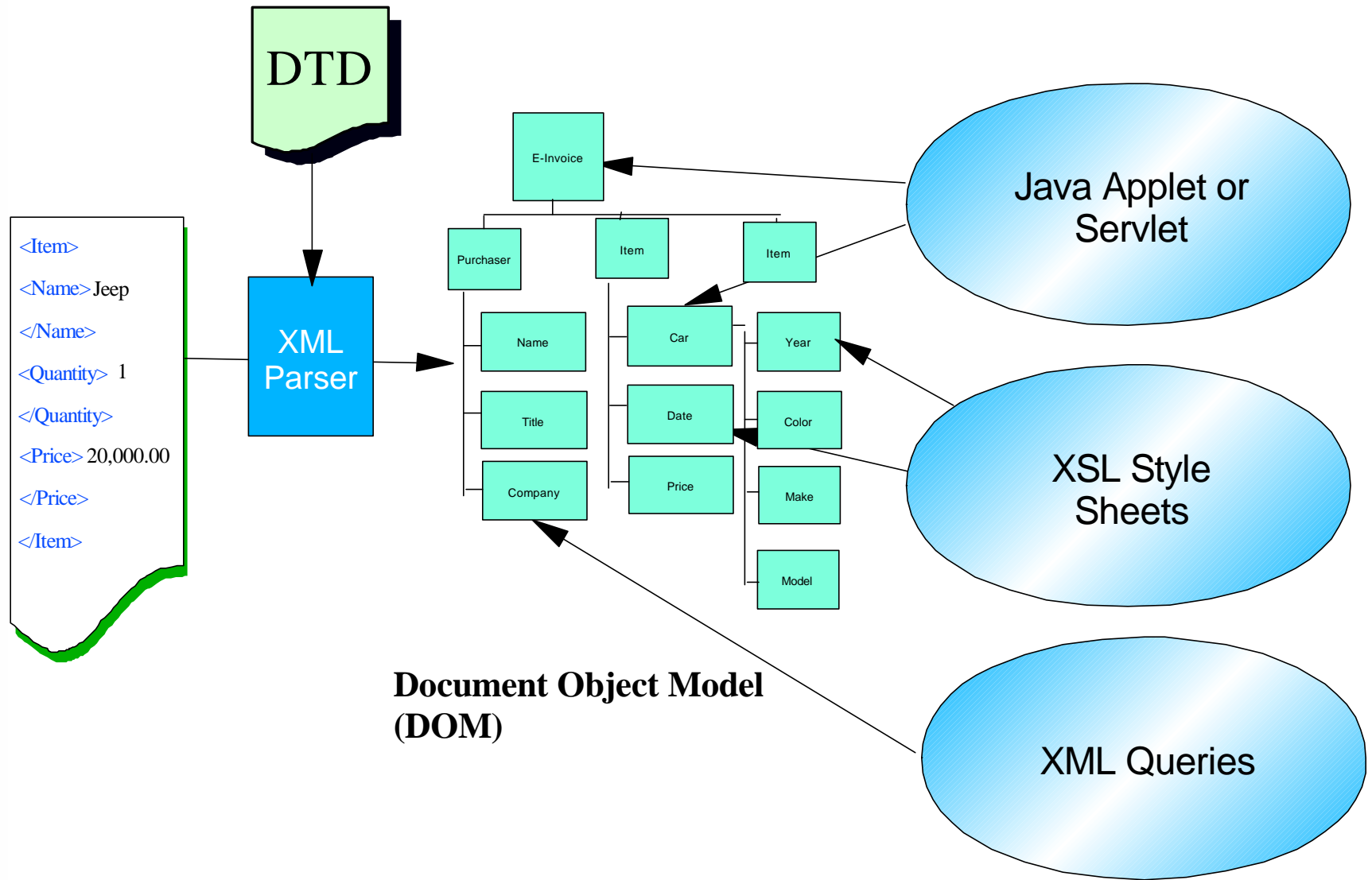
# XML

- Preserves abstract data
- Prevents data from getting mixed up with presentation layer
- Proposed data interchange format for web data

**KEY POINT - XML treats web documents as data, not just format**



# Accessible to Java, Stylesheets, and Queries





# Java and XML Work Together

- **Java is the means to produce portable code**
- **XML is the means to produce portable data**





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# Standards Groups Involving XML

- [W3C](#)
- [XML.ORG](#)
- [BizTalk](#)
- [SAX](#)
- [OMG](#)
- [OASIS](#)
- [IETF](#)
- [DISA](#)
- [HL7](#)
- [ANSI](#)
- [OBI](#)
- [ACORD](#)
- [ECML](#)
- [VICS](#)
- [FpML](#)
- [XFRML](#)
- [RosettaNet](#)
- [Dublin Core](#)
- [VXML Forum](#)
- [CommerceNet](#)
- [OpenApplications](#)
- [ebXML](#)
- **ActiveStore**





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# IBM & Apache Support XML Standards

- IBM contributes key XML technologies (9-Nov-99)
  - ▶ IBM XML Parsers for Java & C++ and LotusXSL processor form code base
  - ▶ Formation of Apache open source project - <http://xml.apache.org/>
- Open source accelerates vendor-neutral XML standards
  - ▶ Openness of the Internet supported by public standards
  - ▶ Non-proprietary implementation of W3C recommendations
  - ▶ Public participation through code contribution
  - ▶ Strong leadership: Apache, IBM, Lotus, DataChannel, ExOffice, Sun, and Textuality
- Ongoing demonstration of IBM's dedicated support of industry standards
  - ▶ W3C, OASIS, XML.org
  - ▶ XML, Java, Linux
- [www.apache.org](http://www.apache.org)





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**Thank you !**

