THE Open GROUP

Architecture Description Markup Language (ADML)

What does it mean?

Why should a tools vendor care?

There is a Big Problem

THE Open GROUP

- Software development no longer the big issue
  - Software design and development tools no longer key issue
    - many good rapid application development tools
- Today's problem: aligning IT solutions with business / mission
  - Architecture the key issue (business / technology mapping)
    - developers < $100k / architects > $100k
    - major product problems come in the architecture
  - Architects deal in the entire life-cycle
    - yet have no tool to support them throughout that life-cycle
- Existing Tools Don't Meet the Need
  - UML intended for high level software design, not architecture

There is Value in a Solution

THE Open GROUP

- This problem is well understood by customers
  - Architectural modeling market much larger than normally perceived
  - Customers WILL recognize the value of architectural tools that interoperate with development cycle & analysis tools
- ADML enables you to provide a solution in <u>your</u> tool
  - Don't, and someone else will
  - Do, and you can enable a whole new value proposition

Remember SQL…

THE Open GROUP

- SQL created a market for relational databases
  - ADML creates a market opportunity for tools
- SQL drove costs down for database vendors
  - Didn't have to invest in creating a language
  - Didn't have to bear the cost of defending a proprietary language
- Open standard SQL attracted attention
  - SQL attracted consumers through
    - promise of single database language
    - new "open" tools that enable better data management and access
  - SQL attracted academics in areas such as
    - optimization
    - distributed relational databases
    - parallelism

Your Customer's Business Incentives

THE Open GROUP

- Increased Architect Effectiveness
  - Highly Compensated
  - Difficult To Hire
- High Quality Transfer to Designers
  - No Lost Requirements
  - Better Understanding of Vision
- Reuse of Architectures & Product
  - Economies of Scale
  - Cleaner Reference Architecture
- Reduced Deployment Risk

The Current Environment

THE Open GROUP

- Popular Drawing Tools are Tools of Choice
  - Architect Reluctance to Learn New Tools
- Architect Unwillingness to Share Models
  - Intellectual Hoarding
  - Concern for Misuse
    - Model Insufficient / Architect Has No Time
- Visual Capability of Highest Priority
  - As Important As Semantics
- Ergo we need mechanisms to
  - Work with and between existing tools
  - Capture architecture unambiguously for easy re-use
  - Combine excellent visualization capability with the capture of semantics
- ADML is the answer

Architect Incentives

THE Open GROUP

- Faster Model Creation
  - Image Repository
  - Building Block Repository
- Enhanced Visual Representation
  - Richer Models (Greater Depth)
  - Drill-Down Capability
- Higher Model Quality
  - Reuse of Validated Architectures

So – Create an ADML Plan for Your Tool

THE Open GROUP

- The Open Group has defined a roadmap for vendor support of ADML
- Develop your own plan for following this Roadmap
- Each level in roadmap takes a minimum effort
- You can judge ADML progress (and alternatives) at each step
- Can implement an aggressive or cautious approach

- A minimal investment now enables leverage of
  - Academic community
  - OMG work (UML, etc)
  - Open Group ADML work
  - and more

Various Levels of ADML Support

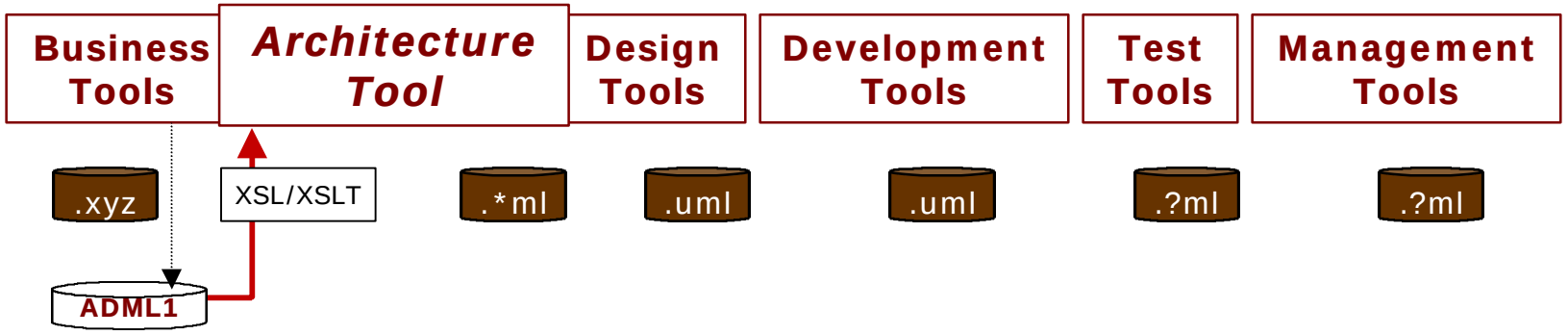
THE Open GROUP

- Level 1
  - Import/Export valid ADML to and from your tool
- Level 2
  - ADML text editing of objects through your tool
- Level 3
  - ADML integration as encoding mechanism for your objects
    - ADML sensitive repository of encoded objects
- Level 4
  - Automatic ADML generation, interchange and management
    - Automated integrity assessments of ADML models
    - Proven interoperation with other tools
    - Integration with ADML-aware “repository”

Level 1 ADML Support

THE Open GROUP

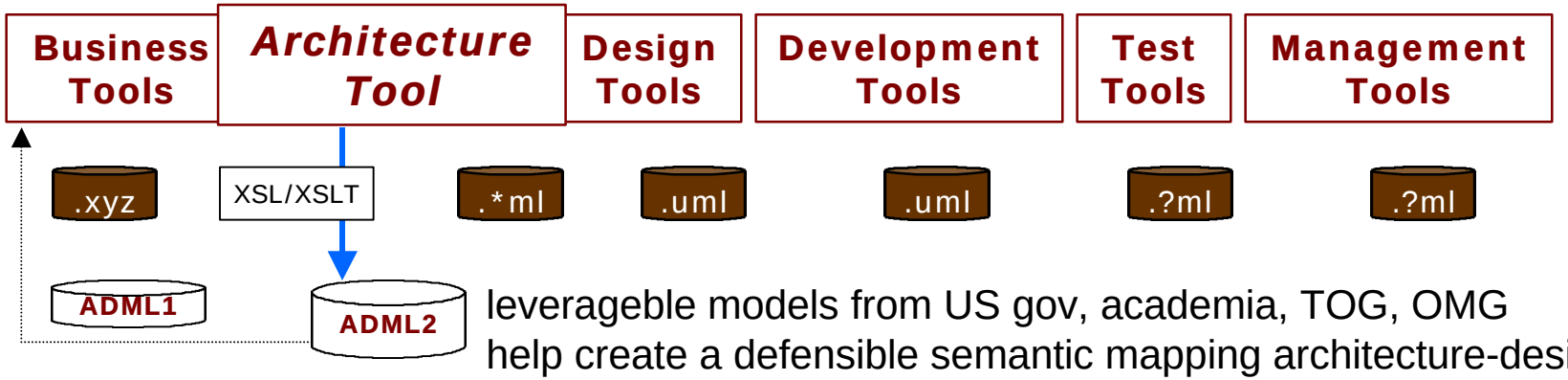
- Import ADML to your tool (e.g., using XSL/XSLT)
  - All ADML elements are mapped on import
  - Assumes some tool/some one has generated ADML
  - Import is done simply by mapping ADML to internal representation
    - ADML to *ml
  - Allows your tool to re-use information from other tools



Level 1 ADML Support

THE Open GROUP

- Export ADML from your tool (e.g., using XSL/XSLT)
  - Your tool manipulates a model
    - adds value to the objects from other tools or add new objects
  - To export all objects must be expressed as valid ADML
    - export is done by mapping internal representation to ADML
      - *ml to ADML
  - Your tool generates re-usable information

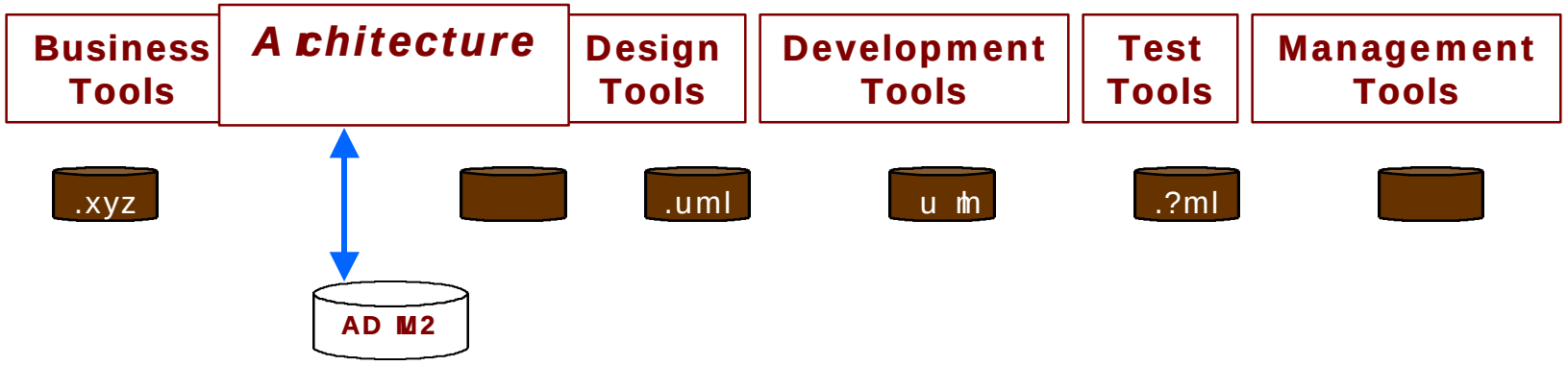


leverageble models from US gov, academia, TOG, OMG
help create a defensible semantic mapping architecture-design

Level 2 ADML Support

THE Open GROUP

- ADML editing of objects through your tool
  - Edit ADML objects directly rather than edit in *ml then convert
    - right click and edit the ADML (e.g., open XML text editor)
  - Evolve to editing an ADML model

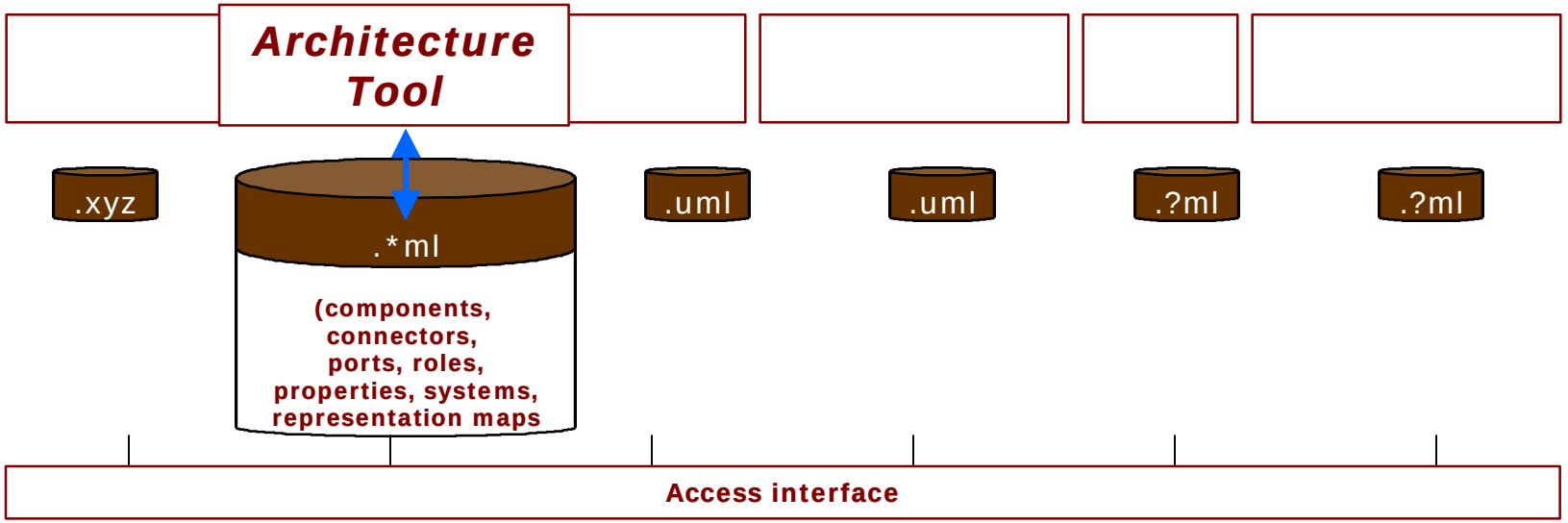


- ADML integration as encoding mechanism for your objects
  - Provide ADML editing at same level as *ml editing
  - Provide ADML access to information per ADML constructs

  Implies an adoption of the ADML metamodel

  ADML sensitive repository of encoded objects

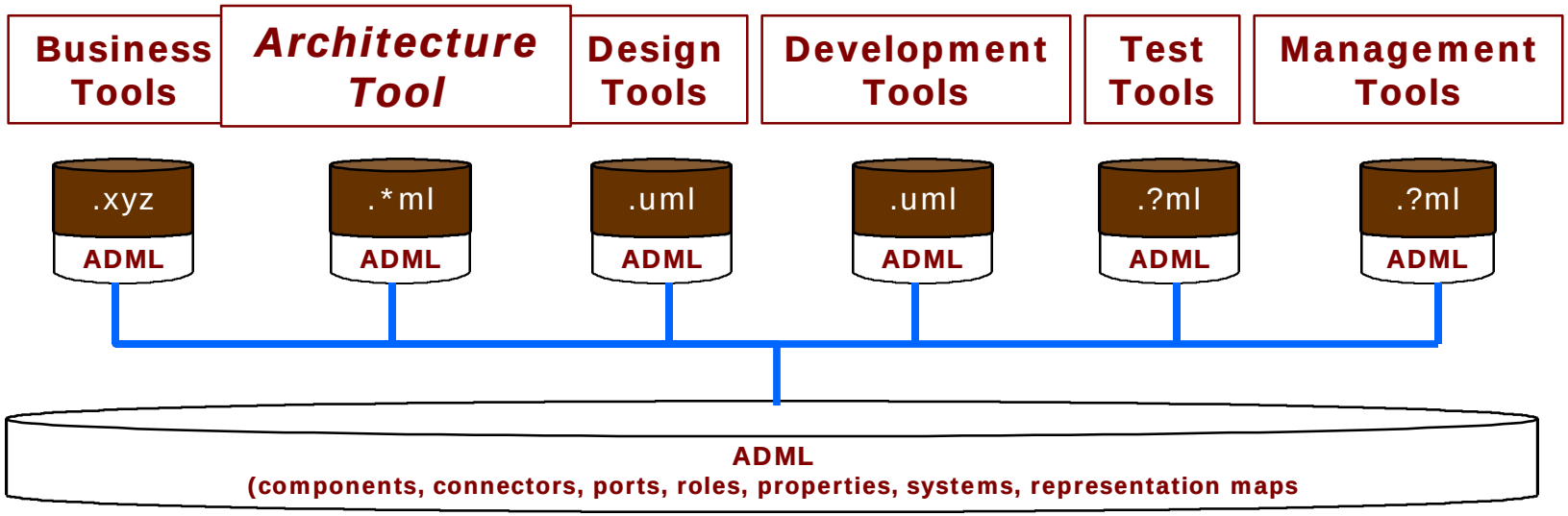
  Provide open access to ADML for other tools



Level 4 ADML Support

THE Open GROUP

- Automatic ADML generation and management
  - Automated integrity assessments of ADML models
  - Proven interoperation with other tools
  - Integration with ADML-aware “repository”



Summary

THE Open GROUP

- You can benefit from ADML
  - Redefined and expanded market
    - significantly greater dollar value
  - More HIGH-VALUE customers
  - Satisfaction of current customers
- You can hedge your bets
  - Aggressive or cautious strategies
    - $$profitable either way$$
  - Work through your roadmap
- However you place the bet, the odds are good!