



POPKIN SOFTWARE

Tool support for Enterprise Architecture in System Architect

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*David Harrison
Senior Consultant, Popkin Software
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Topics

- The target
- What is (enterprise) architecture
- What is a framework
- Why tool support
- Which frameworks
 - Zachman
 - TOGAF
- TOGAF 7 and TOGAF 8
- System Architect support for TOGAF 8



The target

Enterprise Architecture
+ a framework
+ tool support

= alignment (business and IT)
+ benefit (to the organisation)

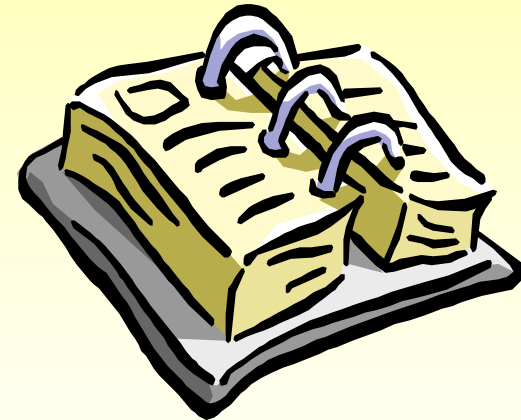
*Your Enterprise Architecture becomes an
enterprise asset*



Enterprise Architecture

“... the set of descriptive representations (models) that are relevant for describing an Enterprise such that it can be produced to management’s requirements (quality) over the period of its useful life (changed).” [q. J Zachman]

- Set of models and documents
- Graphical and textual artefacts
 - Diagrams and symbols
 - Definitions and descriptions
- Describes multiple architecture domains:
 - People
 - Processes
 - Technology
 - Information
 - Applications
- Defines relationships between them
- An Enterprise Architecture supports an operating business in achieving its goals



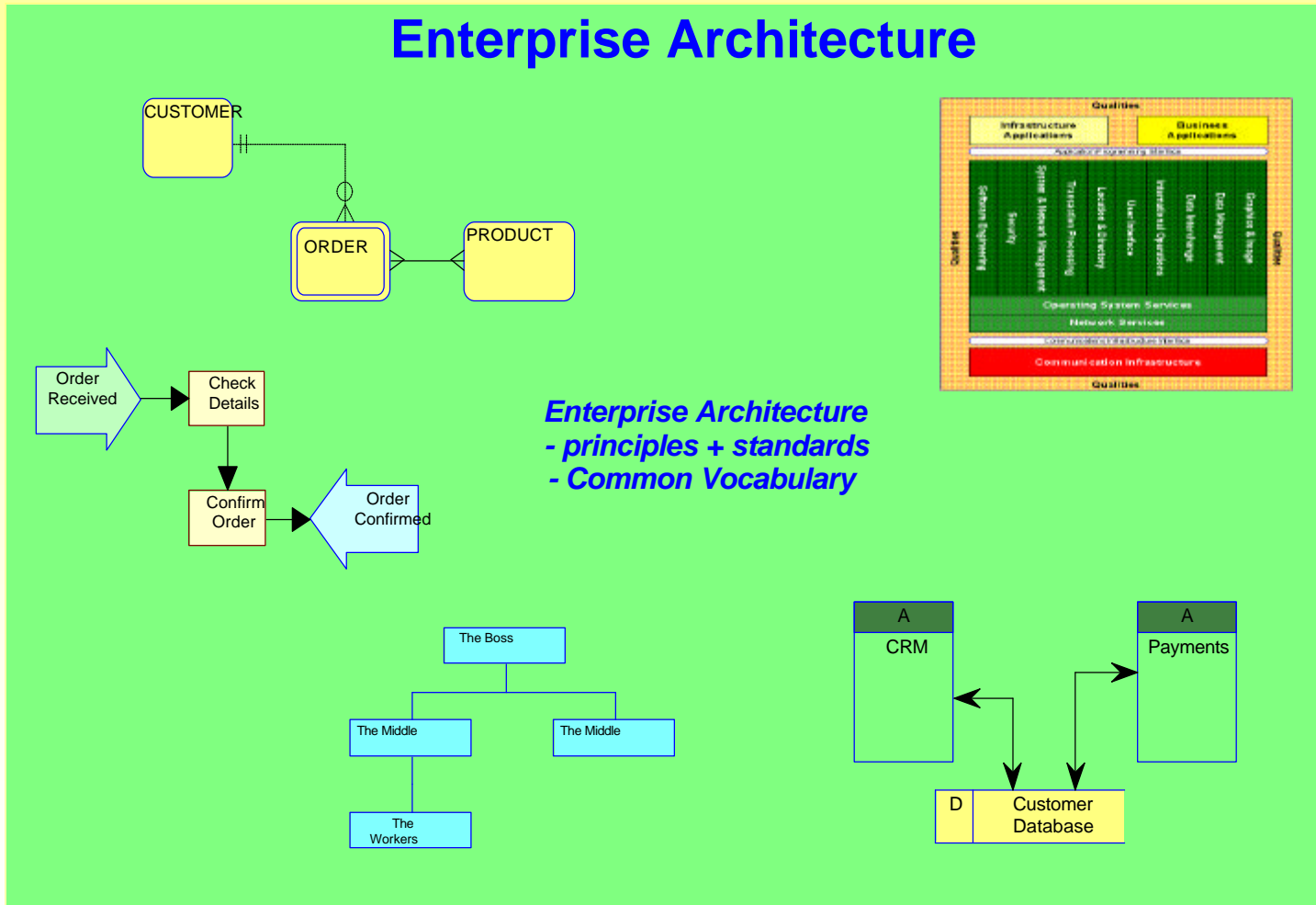
Models in the Enterprise Architecture

- Graphical representation of the “real world” (the “picture on the lid”)
- Many domains (views)
 - Data
 - Business process
 - Technical
 - Application
 - Organisation
- Many levels
 - conceptual
 - logical
 - physical
- Many artefacts and relationships
- Supported by descriptive text
- Supports and enables
 - Development (business or technology)
 - Change (business or technology)



The IT architecture in the Enterprise

Enterprise Architecture



Making the enterprise architecture useful, usable and used ...

- The *Architecture* alone is not enough
 - Need to understand how it all fits together
 - Need to maintain consistency and currency of models
 - Need a common vocabulary
 - communication
 - all stakeholders
 - Need to manage multiple models, methods and notations
 - Need to organise and classify the information
 - Need clear and agreed architecture and principles
 - Need an architecture framework
 - Need methods for populating the framework



Architecture frameworks

- Architecture framework provides:

- Integration
- Organisation
- Classification



- Window on the underlying repository
- Shows how it all fits together
- Gives you the view you want to see, appropriate to your purpose

- “A place for everything and everything in its place”

- Knowing where to put things
- Knowing where to find them

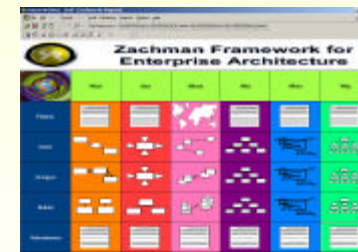
- “Static” and “dynamic” frameworks

- Content-focused frameworks (eg: Zachman)
- Process-focused frameworks (eg: TOGAF)



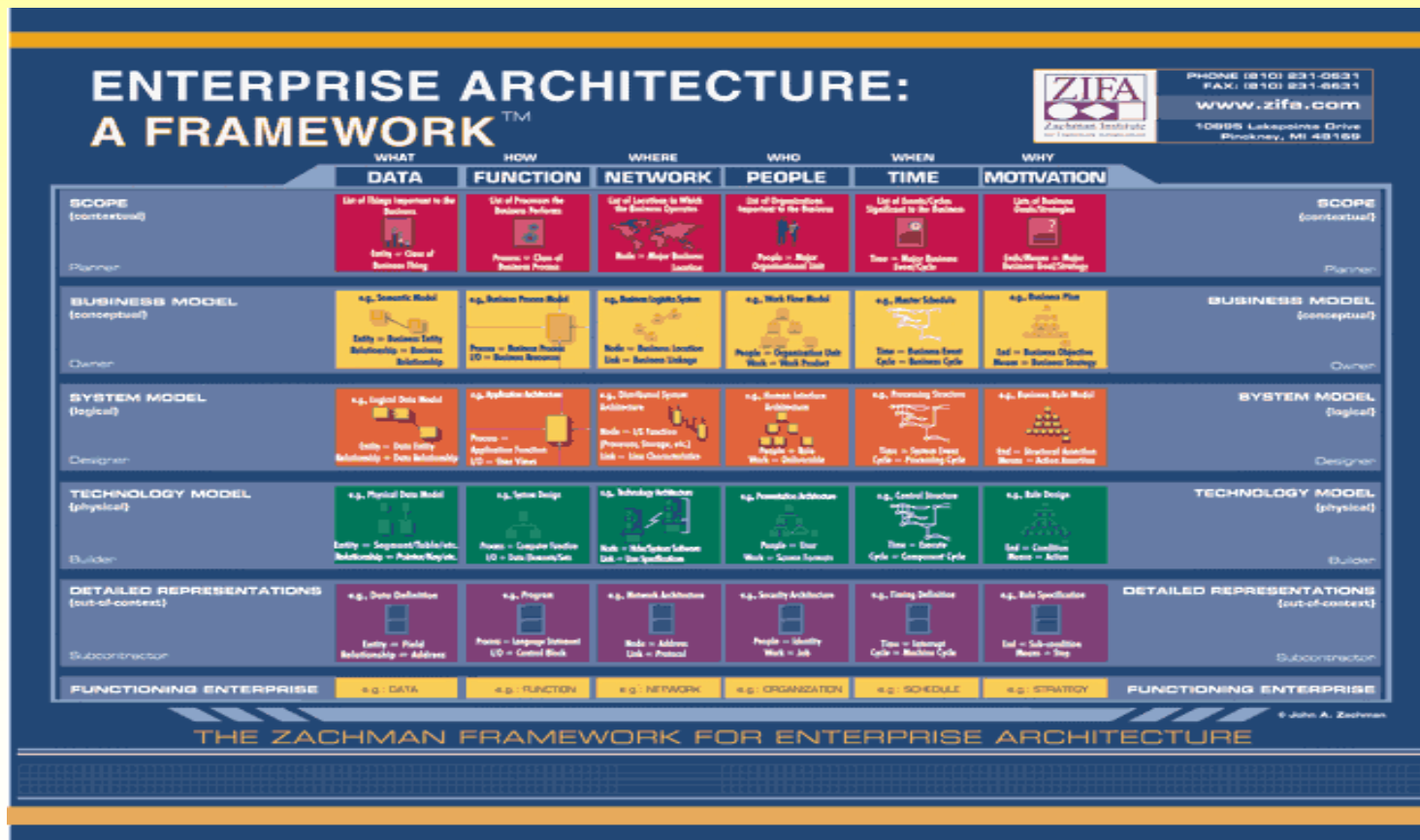
Static and dynamic frameworks

- Static framework
 - Window on the repository
 - Static picture of current content
- Dynamic framework
 - Defines process steps
 - Defines content (deliverables from steps)
 - Navigates the process
 - The process **uses and populates** the framework
- Architecture artefacts used and visible in many frameworks
- Zachman
 - an **implicit** process
- TOGAF
 - an **explicit** process



Supporting content (static) - Zachman

Zachman – a “reference model”



Zachman Framework – key features

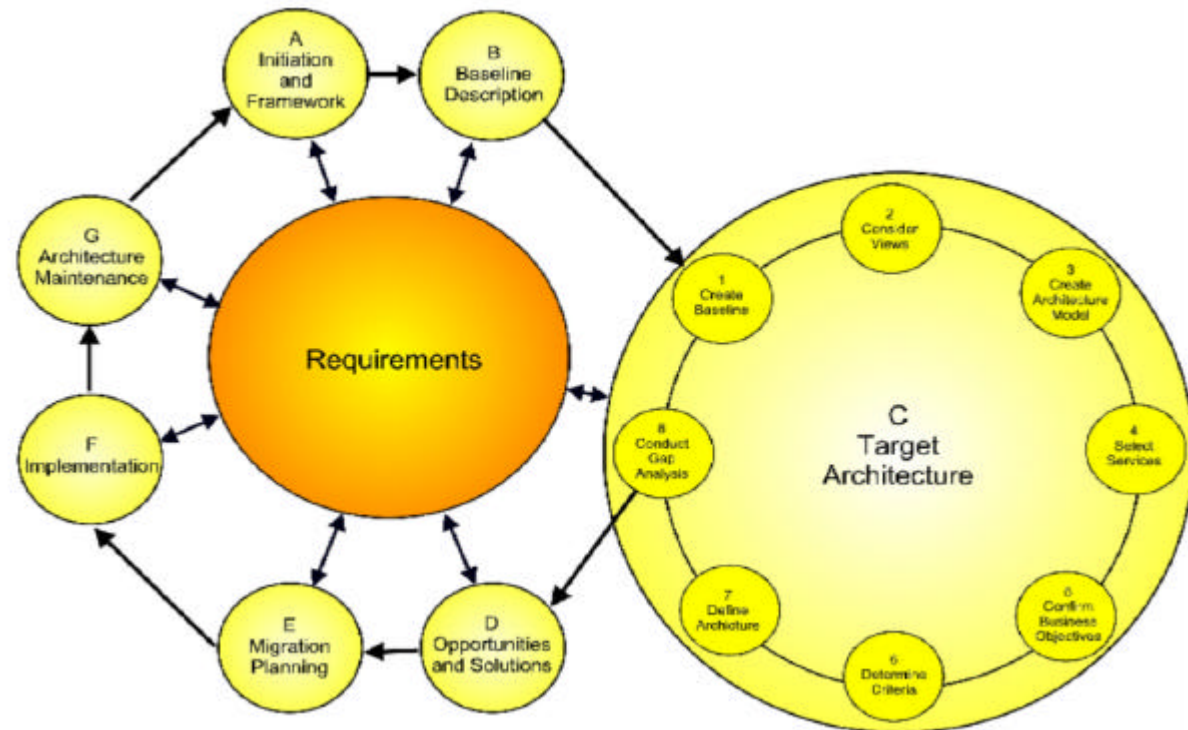
- Reference for other frameworks
- Supports all architecture domains (column)
- Supports multiple perspectives (row)
- Not prescriptive about multiple modelling methods
- A place for for everything + everything in its place
- Enables re-use of model artefacts
- Enables a common vocabulary for IT and business people
- *“The system is the enterprise” [q. J Zachman]*



Supporting a process (dynamic) – TOGAF

The Open Group Architecture Framework – an implementation method

- TOGAF populates the Zachman (or other) framework
- Defines process and deliverables
- Navigates the process



Why tool support

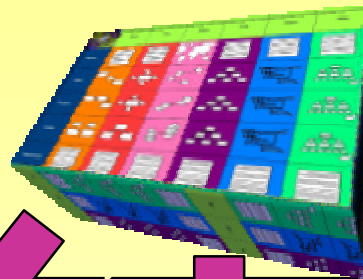
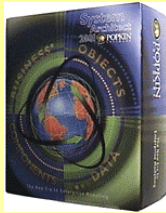
To bring the architecture alive (useful, usable and used)

- Ability to store and integrate models and textual material in one place
- Ability to navigate and share the information (but define and store only once)
- Improved quality, currency and completeness of information
- Ability to analyse across domains and business areas
- Enables implementation of a corporate metamodel
 - defines content and style
 - no gap between visual representation and textual definition, hence ...
- Enables improved communication between all stakeholders
 - Common vocabulary
 - Business, IT and other audiences
- *In short to deliver the benefits ...*

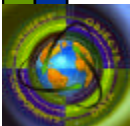
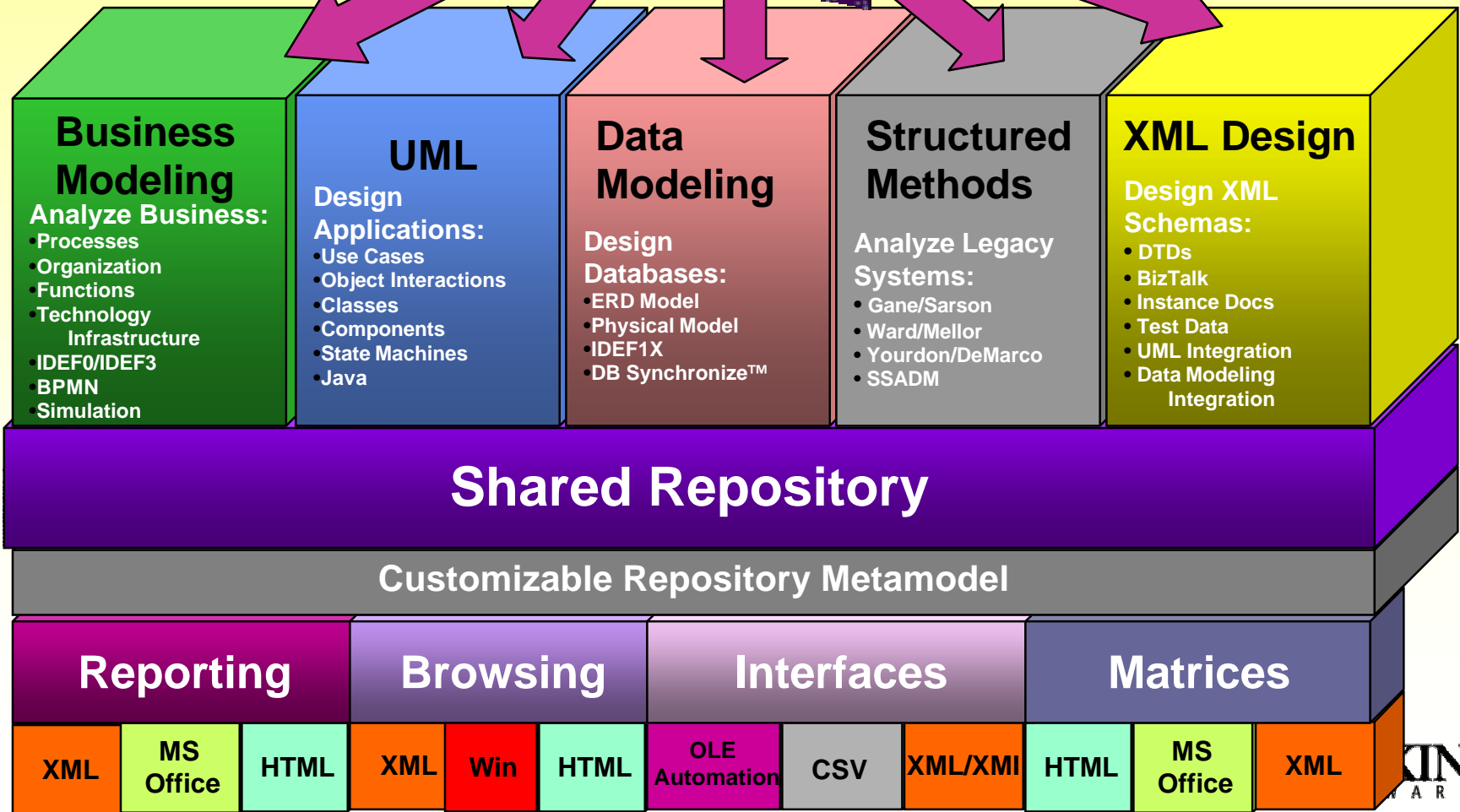
architecture + framework + tool support = an enterprise asset



System Architect summary in a single slide



Shared Definitions



SA Framework and Method support - *overview*

- Not prescriptive
- Supports multiple frameworks and methods
- Supports re-use of artefacts
- Frameworks, including:
 - Zachman
 - TOGAF
- Methods and Languages, including:
 - UML
 - BPMN
 - ER
 - IDEF
- Customisable, build-your-own framework, select appropriate methods



Zachman Framework in SA

System Architect - C:\Program Files\Popkin Software\System Architect\Encyclopedias\Samples\

File Edit View Format Draw Tools Dictionary Reports Window Help

Browse

- Diagrams
 - Activity
 - Auto-Decomposition
 - Business Concept
 - Class
 - Collaboration
 - Component
 - Data Flow Gane & Sarson
 - Data Flow Ward & Mellor
 - Decomposition
 - Deployment
 - Entity Relation
 - Functional Hierarchy
 - IDEF0
 - IDEF3 Object State Transiti
 - IDEF3 Process Flow
 - Network Concept
 - Organization Chart
 - Physical Data Model
 - Process Chart
 - Process Decomposition
 - Process Hierarchy
 - Process Map
 - Relationship Map

All Methods

- Business Process
- Structured
- Technology
- Business Direction
- Data Modeling
- Application
- Organization
- Location
- UML

Zachman by Diagram

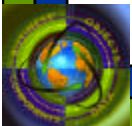
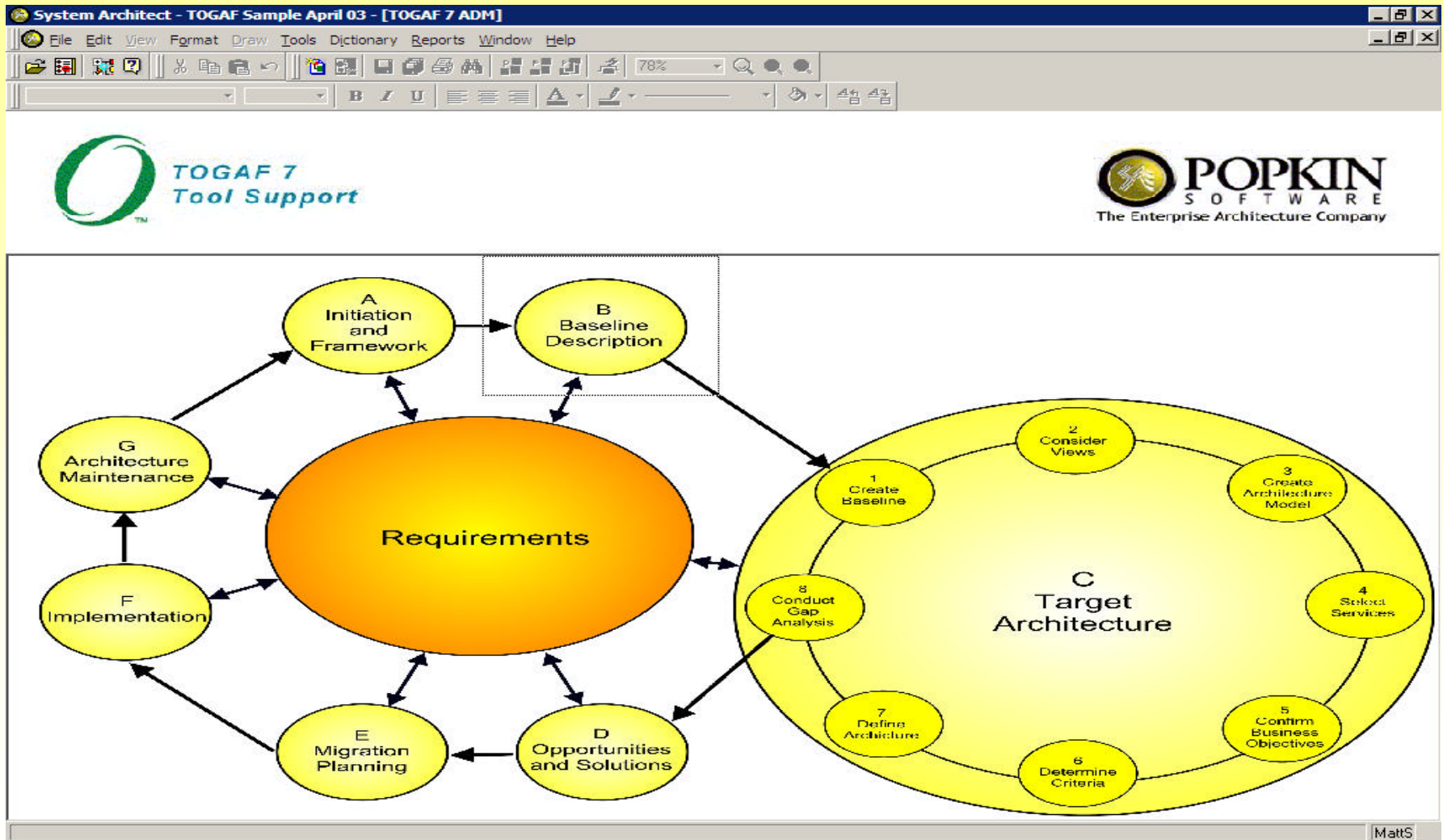
Zachman Framework 1 Enterprise Architectur

	What	How	Where	Who	When
Planner					
Owner					
Designer					
Builder					
Subcontractor					

Browse Detail

DaveH

TOGAF 7 Framework in SA



TOGAF Tool support requirements

- Main requirements of a supporting tool:
 - Supports the ADM process
 - Supports the ADM core deliverables
 - Supports the Foundation architecture and Enterprise Continuum
 - Enables re-use of architecture components
 - Enables full integration of architecture components
 - Enables production of principal TOGAF documents and models
 - Supports commonly-used modelling standards and methods
 - Has a common repository supporting multiple concurrent users



TOGAF in System Architect

- TOGAF framework graphical
- Supports the TOGAF ADM
 - The phases of TOGAF 7 and TOGAF 8
 - Navigation through the phases
- Supports the TOGAF products and techniques
 - Definition *templates* for core deliverables, in particular:
 - * Business Architecture
 - * Data Architecture
 - * Application Architecture
 - * Technology Architecture
 - Business Scenarios
 - Requirements management
 - Gap analysis
- Supports Foundation Architecture
 - The TRM graphic and taxonomy, including hyperlinks to TRM, SIB
- Enables re-use and integration of architecture artefacts
- Central repository + support for multiple concurrent users
- Supports production of principal TOGAF document and views



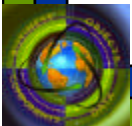
TOGAF Phase A – definition selected

The screenshot displays the 'System Architect - TOGAF Sample April 03 - [TOGAF 7 ADM]' application. The main window shows a diagram of the TOGAF Architecture Development Method (ADM) phases. Phase A, 'Initiation and Framework', is highlighted with a dashed box. Other phases visible include 'Business Architecture', 'Business Scenario', 'Request For Architecture Work', 'Solution Building Block', 'Statement of Architecture Work', and 'System'. A 'Phase A: Identify requirements, initiate architecture ...' window is open, showing a tree view of the project structure.

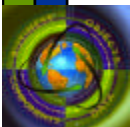
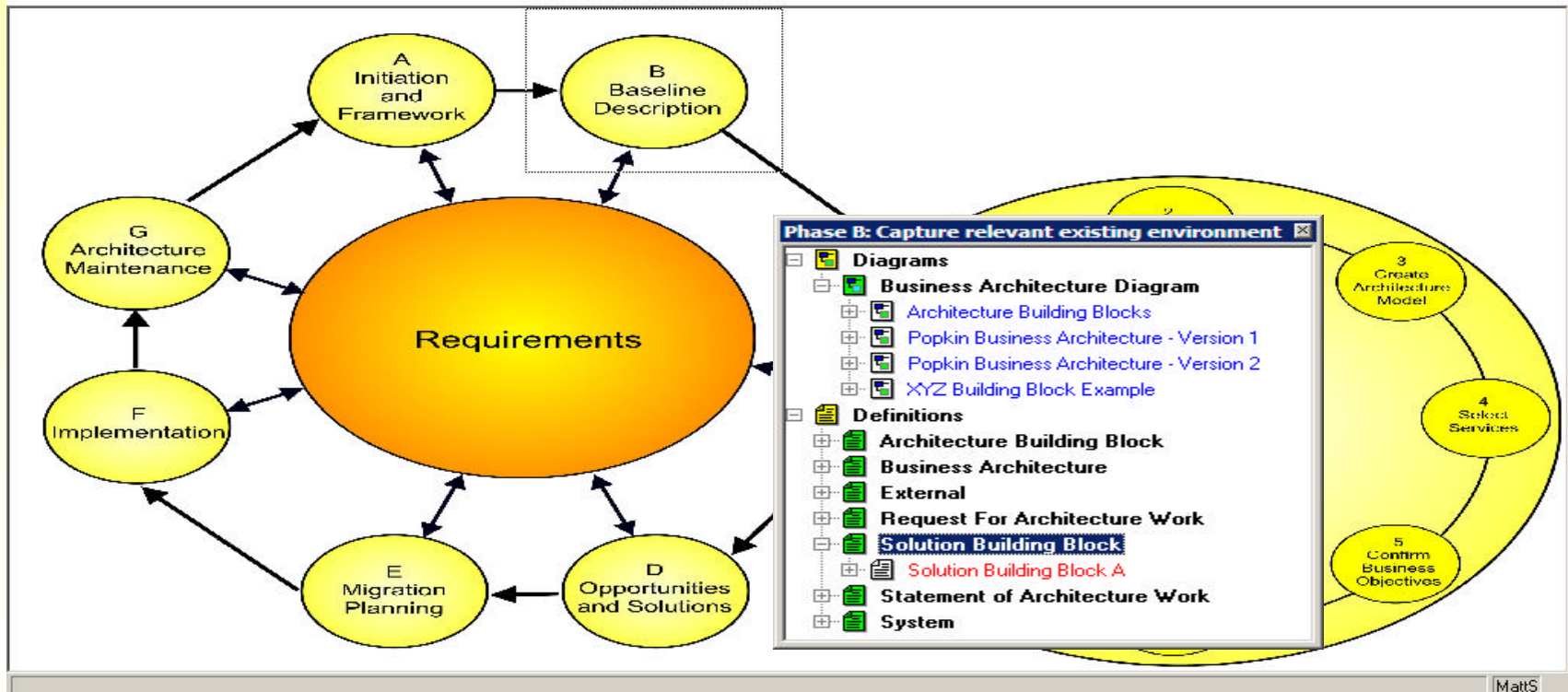
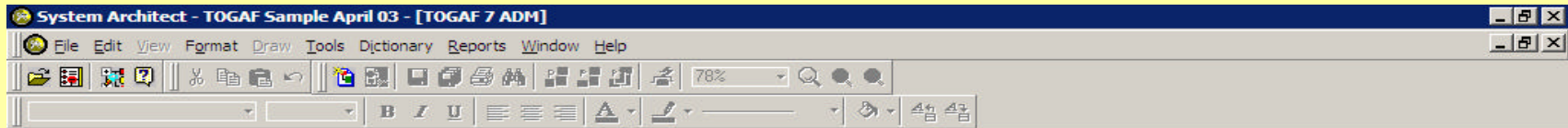
The 'Dictionary Object - Business Architecture - Popkin Business Architecture - Version 1' dialog box is open, showing the configuration for the selected phase. The dialog has tabs for 'Introduction', 'Baseline', 'Baseline (TOGAF Terms)', 'About the Business', 'Candidate Building Blocks', and 'Assumptions'. The 'About the Business' tab is active, showing three sections:

- Business Requirements:** Contains two entries: '"Must be available 24x7"'. Buttons: Add, Modify, Remove, Define, Check, Choices...
- Business Processes:** Contains three entries: '"Develop new product"', '"Receive new stock"', and '"Announce new product"'. Buttons: Add, Modify, Remove, Define, Check, Choices...
- Key Business Drivers:** Contains one entry: '"Competition in tool market plac...'. Buttons: Add, Modify, Remove, Define, Check, Choices...

The dialog also shows 'Name: Popkin Business Architecture - Version 1' and 'Len: 80'. The 'OK', 'Cancel', 'Spell', and 'Delete' buttons are at the bottom. The name 'MattS' is visible in the bottom right corner of the dialog.



TOGAF Phase B – mini-browser

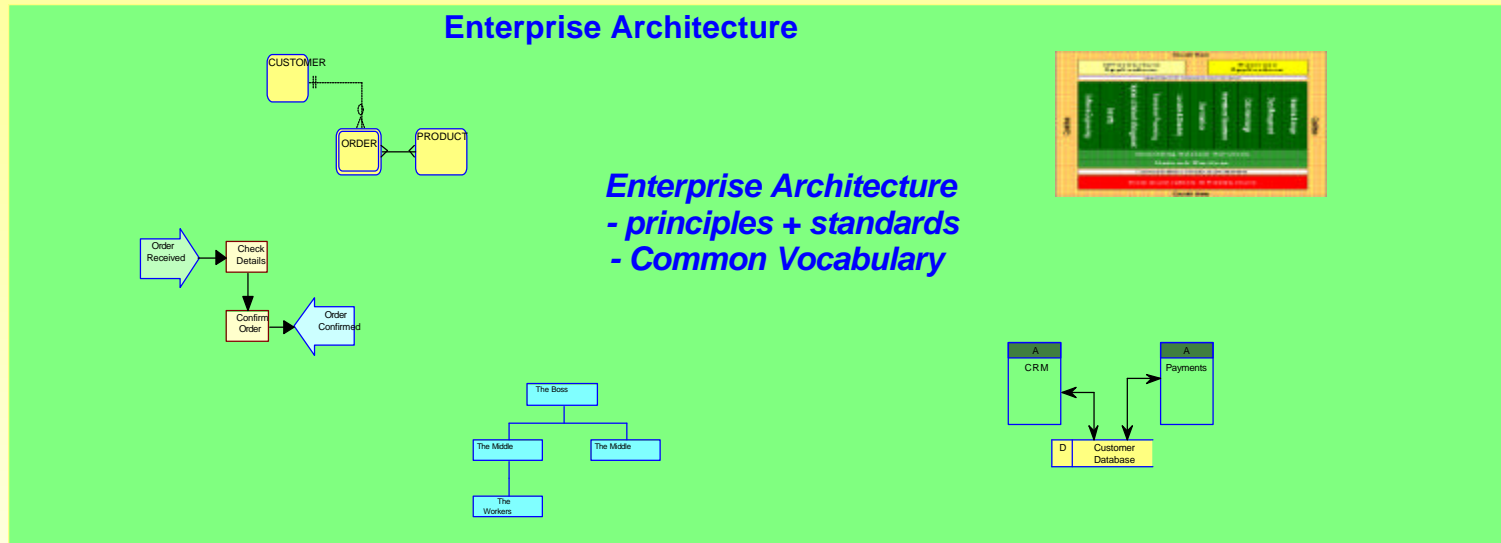


Summary – the framework and the tool

- Support for your chosen framework(s) and method(s)
- A way of organising information
- A means to share information
- Your set of reference material
- Knowing where to put things ...
- Knowing where to find them ...
 - Other people knowing where to find them
 - Now and next year ...
- A common vocabulary
- In a ***single repository***
- **Brings your architecture alive**
- **Delivers business benefit**



Conclusion – delivering the Enterprise Asset



enterprise architecture
+ a framework
+ tool support



alignment (business and IT)
+ benefit (to the organisation)

Your Enterprise Architecture has become an enterprise asset



SA and TOGAF – next steps

- Full support for TOGAF 8
- TOGAF 8 sample encyclopaedia
- Develop / contribute to a TOGAF meta-model
 - Architecture artefacts
 - Principles and standards
 - TOGAF resources
 - ERD / UML
- Develop / contribute a TOGAF process model
 - ADM phases
 - Related processes
 - BPMN
- Commitment to support future TOGAF versions
- Policy of continuous improvement
- Promotion of TOGAF with Popkin clients

