An Integrated Architectural Approach in the C3I domain

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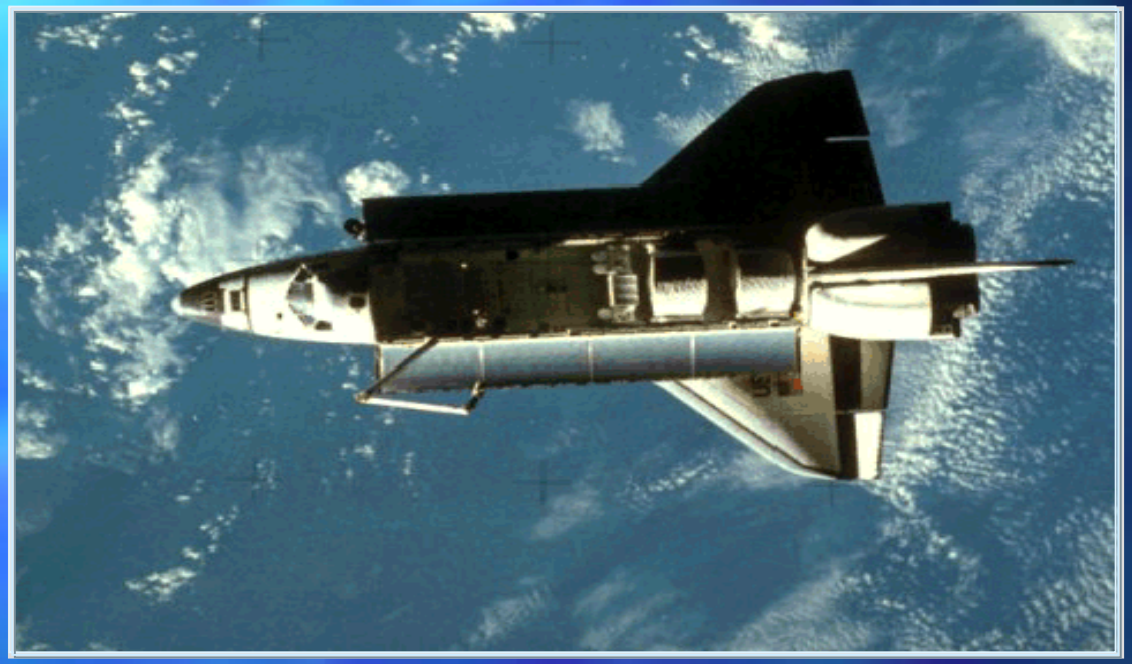
Topics

- Why Integrated Architectural Approach
- Integrated Architecture Framework + Cap Gemini's AD methods and IEEE 1003.23
- C3I-Integrated Architectural Approach
- C3I-Information Systems Framework, concepts

Why Integrated Architectural Approach



For a thing to operate as one system,
it must be designed as one system.

Architecture is a prerequisite of design.

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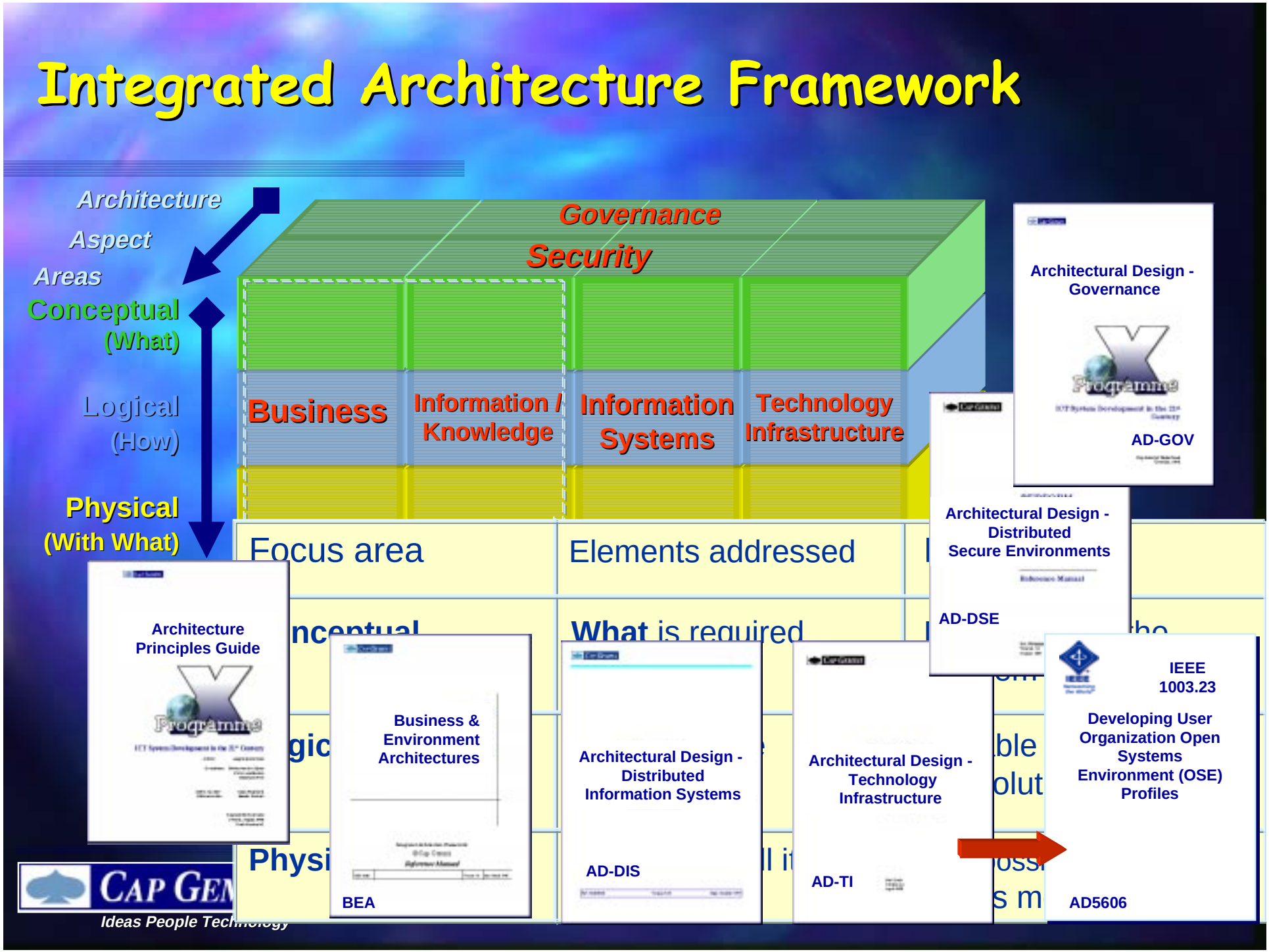
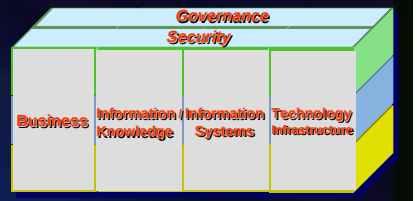
Integrated Architecture Framework



Architectural Design Approach



Architectural Design Phases

1 Vision Scope

2 Architectural Design

5 Migration Optimisation

6 Development Control

Joint Architecture Teams

Application System Development

4

Implementation

7

3 Component System Development

System Development Phases

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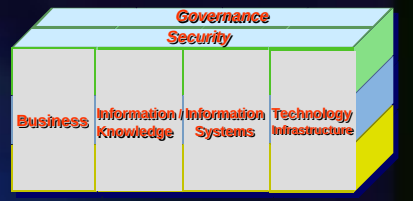
Joint architecture teams



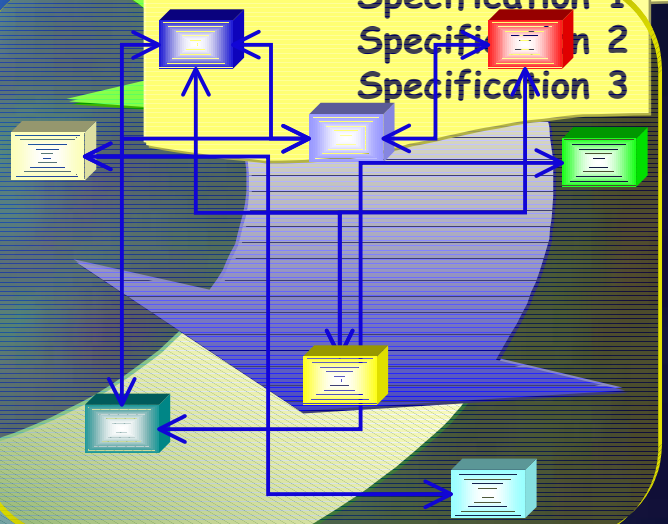
Client: Knowledge of their Business

Iterate

Standards:
Specification 1

Guidelines:
Specification 1

Component x:
Specification 1
Specification 2
Specification 3



Architects: Architecture knowledge (B/I/IS/IT/SEC/GOV)

Experts: Specific Knowledge

The required architecture

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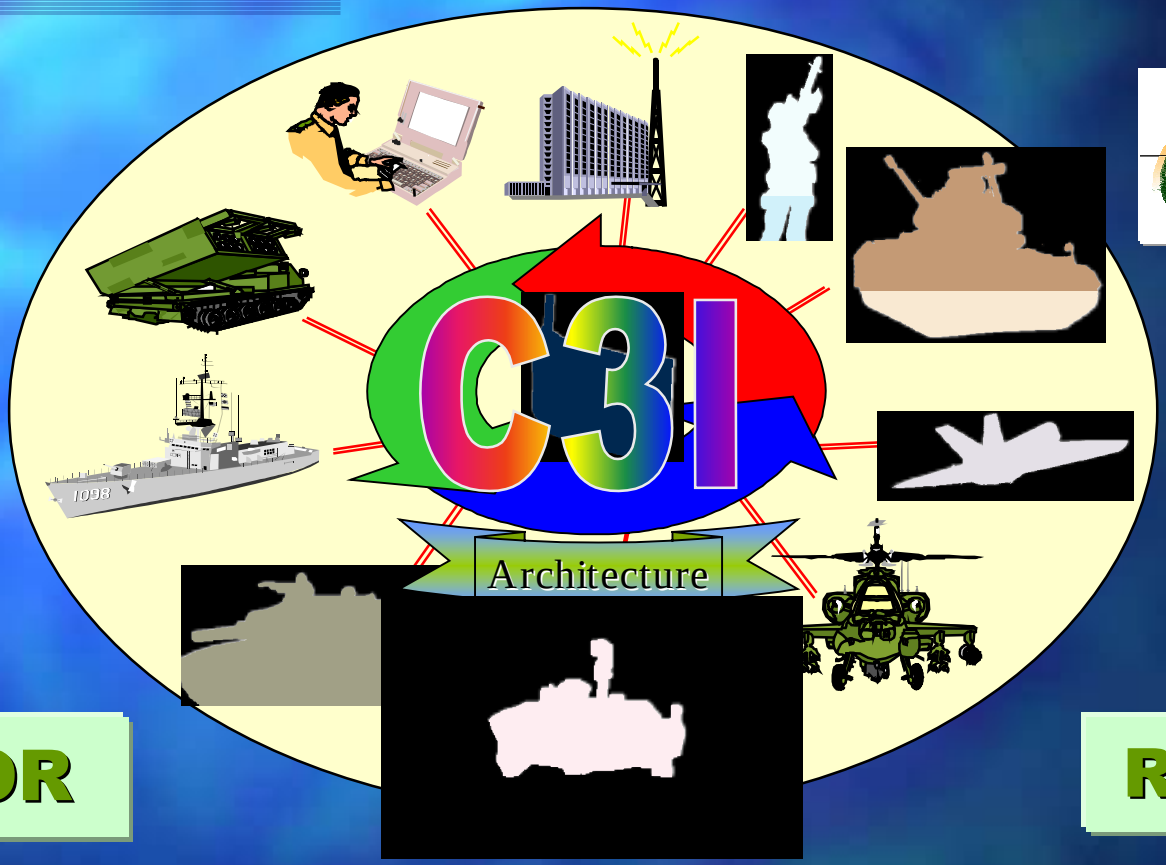
Royal Netherlands Army - C3I

Command, Control, Communication & Information Architecture



CONDOR

RPV/INOS

For an organisation to operate as one system,
it must be designed as one system.

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C3I Architectural Design - Conditions

- Defence Information Architecture
- Defence-ICT Security Architecture

- (Inter)national interoperability

Toshiba Laptops	Microsoft Components	Windows-NT	Oracle RDBMS

- COTS

Organisational Modularity	System Modularity	Infrastructural Modularity

- Modularity
- "Train as you fight"

Using the same systems and functionality in operations and standard activities

- Operational User

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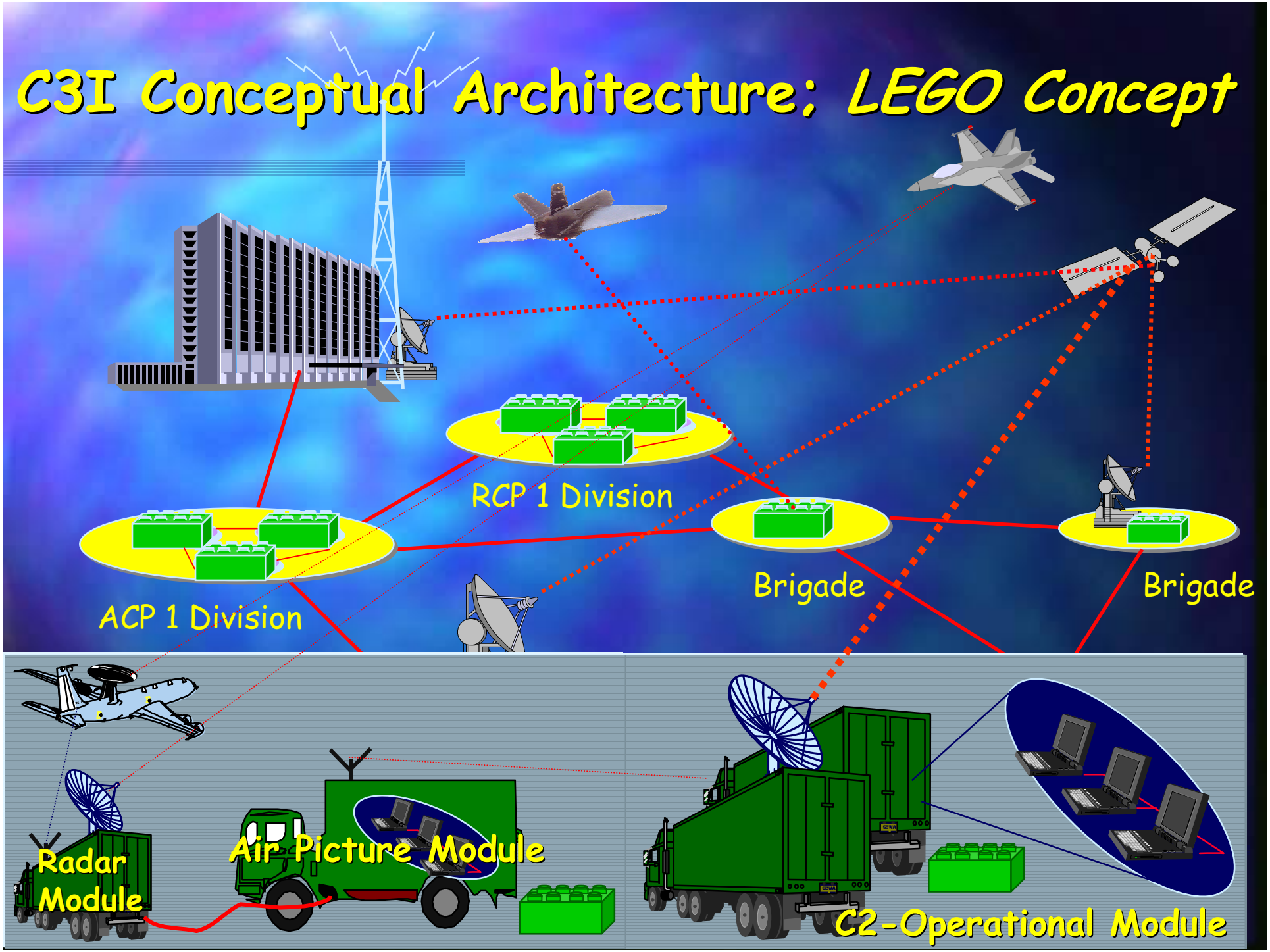
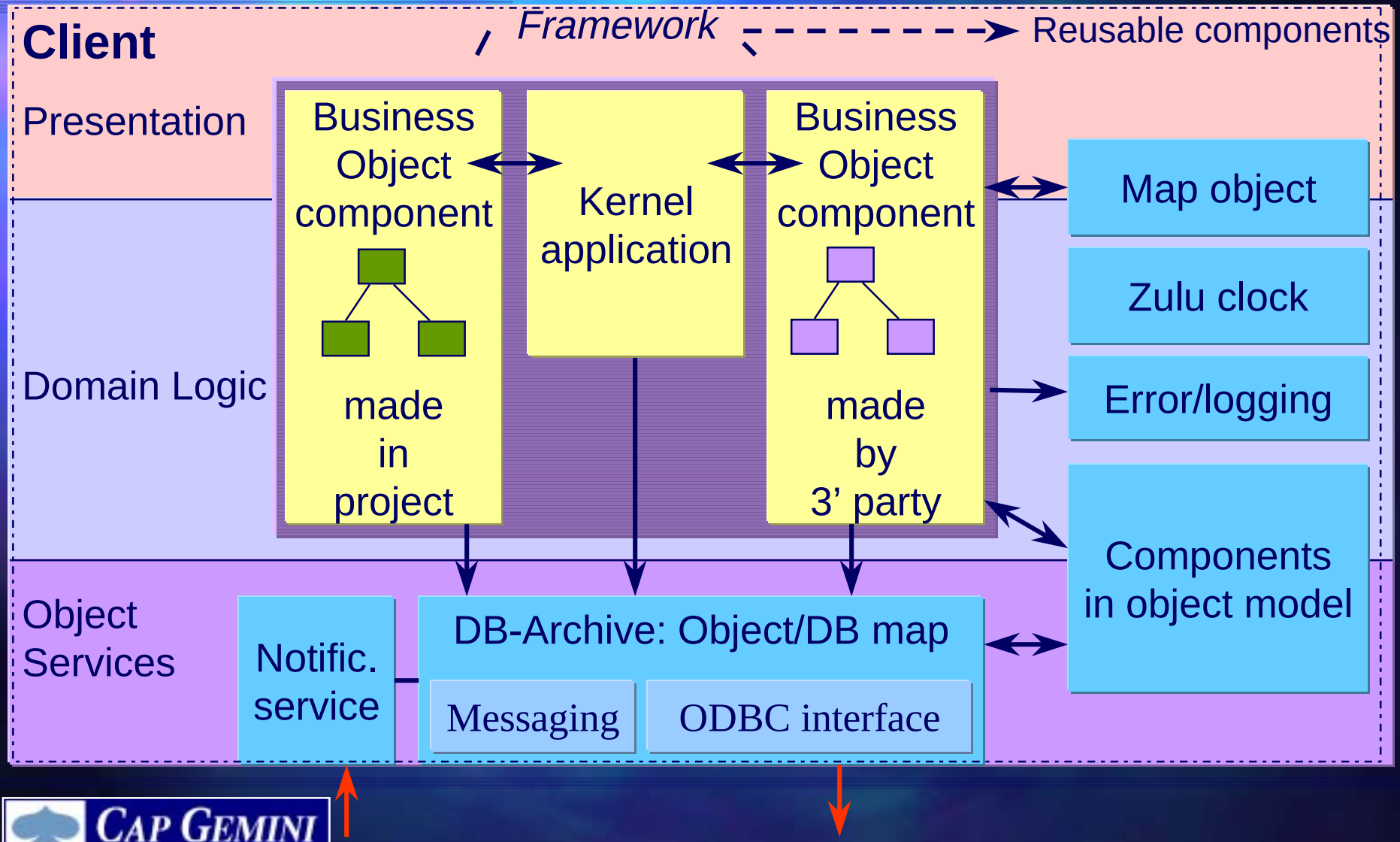

C3I Conceptual Architecture; LEGO Concept
RCP 1 Division
ACP 1 Division
Brigade
Brigade
Radar Module
Air Picture Module
C2-Operational Module

Information Systems framework, Concepts

- Integration of business components, supplied by C3I project teams or 3'th parties.
  => based on rules, interface-specs and templates.
  => condition: without recompilation of applications.
- Delivery of reusable components
  => to accelerate the development program.
  => to force rules and consistency.
  => also to be used by other projects (remark: make/buy).

Information Systems architecture
Example: Client Application framework



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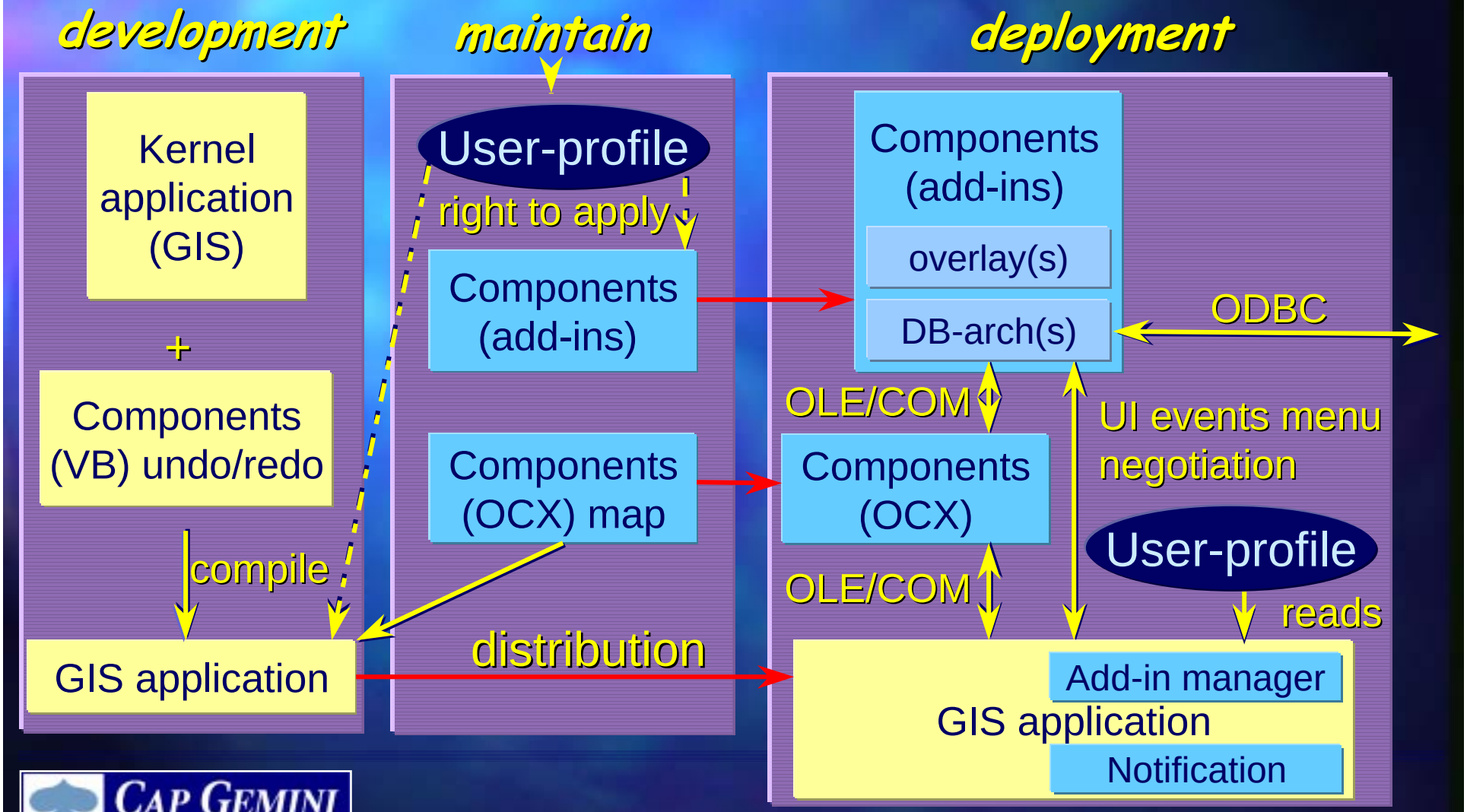
C3I - Client System Component architecture



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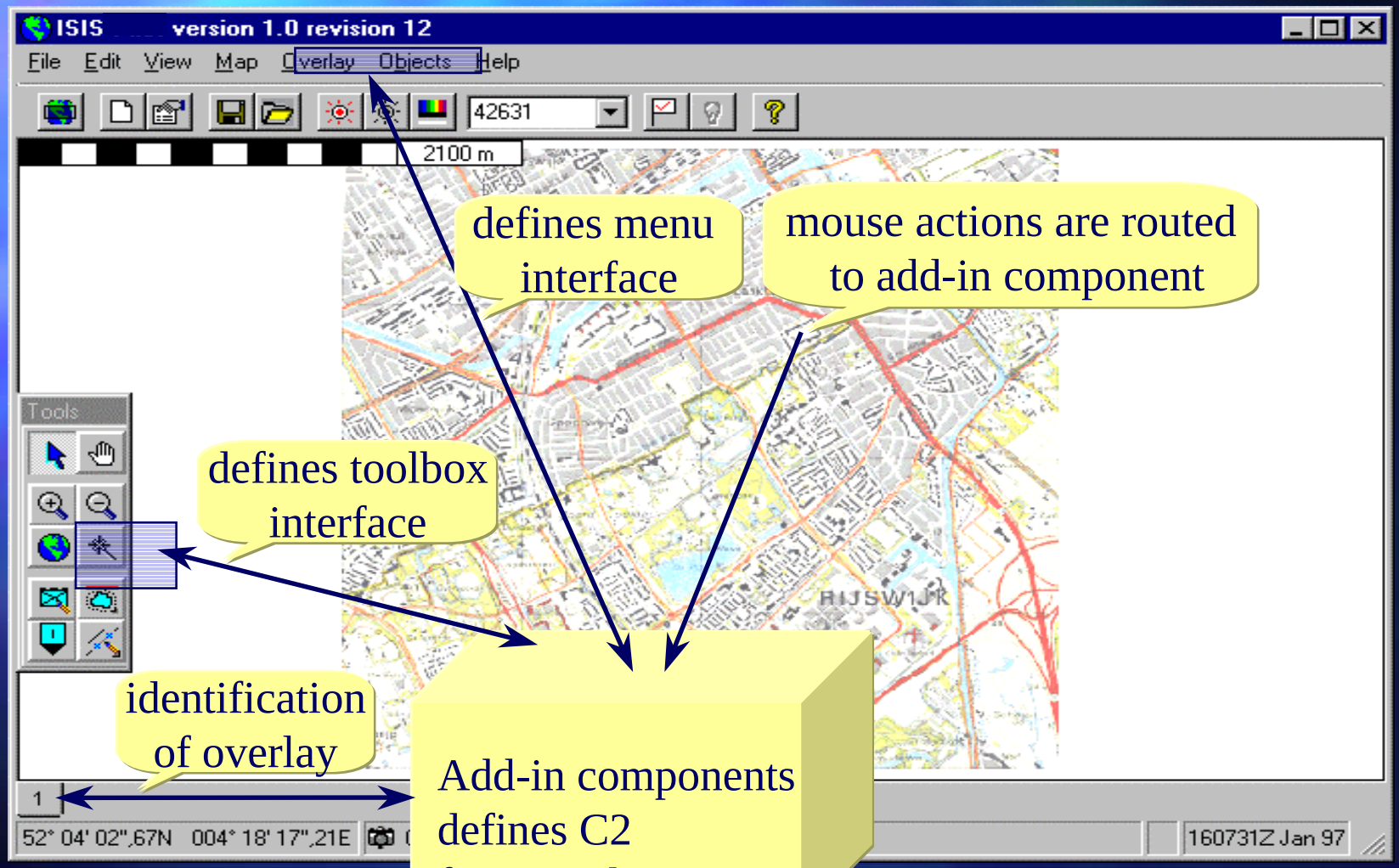
Example Desktop integration: add-ins



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Conclusion: Integrated Architectural Approach Results:

From: individual 'legacy' (Stovepipe) Systems

To:
Providing Interoperable
(COTS) Functions & Services

Anywhere, Anytime, Any Mission

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