IBM's UI UNITY

A Role Based, Device Independent, Administrative Console

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Senior Technical Staff Member
Ease of Use

The "Opportunity"

CSA: A Big Opportunity

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Every Server (OS & Middleware) Offered Unique Admin:

Enterprise Servers

Function Servers

Department Servers

Clients

- **Complex Administration of Heterogeneous Environments**
- **A Variety of Interfaces for Systems, Users and Services**
- **Reducing Skills Available for Systems Administration**

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For the Customer:
Varieties of Administrative Experience ...

- Increase the cost of ownership of IBM products
- Cause staffing and skill problems
- Create a confusing picture and perception of IBM products

  - Multiple administrative and management user interfaces to juggle
  - Multiple large learning curves (e.g., different task flows)
  - Duplicate data entry and common synchronization problems
  - Protracted and error-prone configuration
  - Silos of decentralized management (data and staff issues)
  - Staffing and organizational adjustments (skill groups, retention)
  - Erosion in the perception of IBM brands and "fog of IBM products" (nothing is the same, a jumbled experience)
  - Complicated PD and administrative inefficiencies
  - Slow adoption and implementation and growth curves
  - Unused product features (adopting a "bare minimum" approach)

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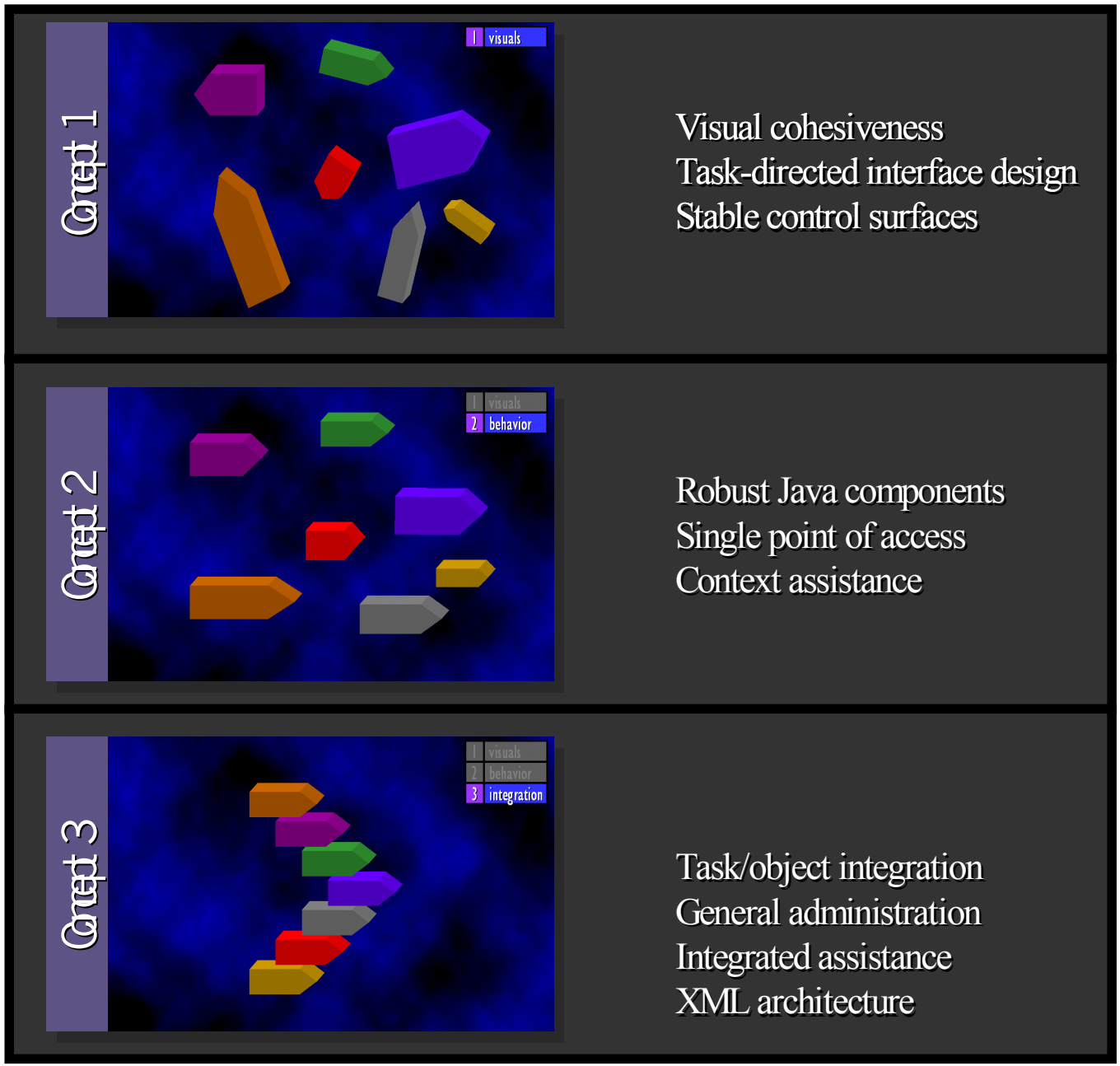
The Actions

Pre-CSA Initiative - "Concepts"



AUIML (UI - XML)

Device Independent UI Definitions:
(Intent Oriented)

```
<CHOICE NAME="yes-no">
   <CAPTION>Options available are:</CAPTION>
   <STRING NAME="Affirmative">
      <VALUE>Yes</VALUE>
   </STRING>
   <STRING NAME>="Negative">
      <VALUE>No</VALUE>
   </STRING>
</CHOICE>
```

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AUIML Rendering Samples

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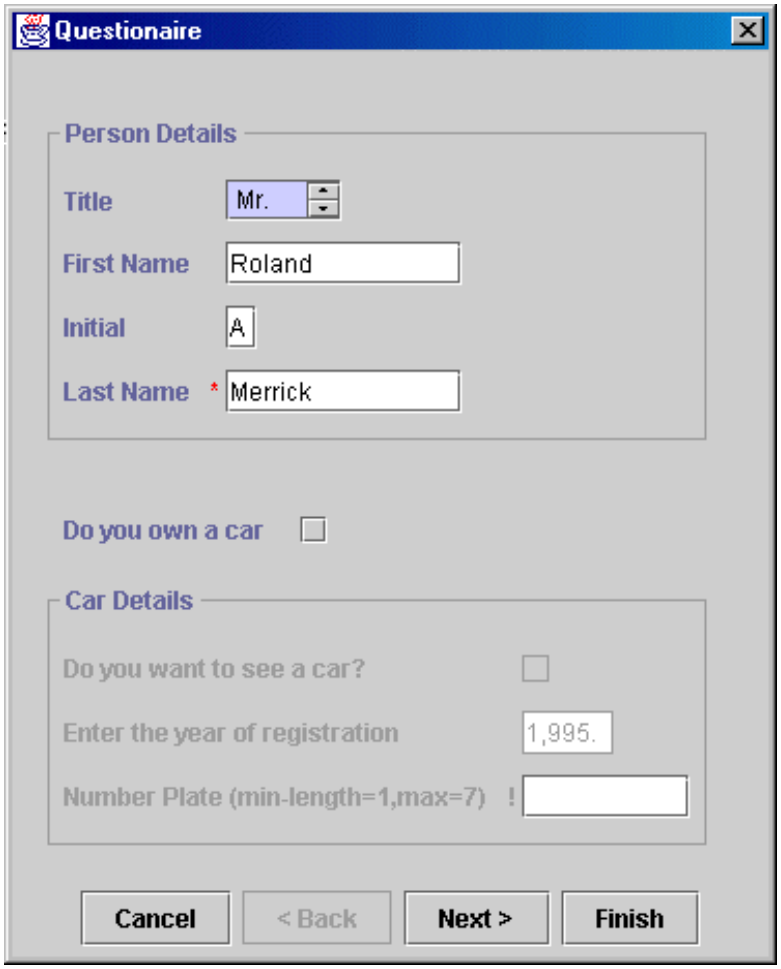
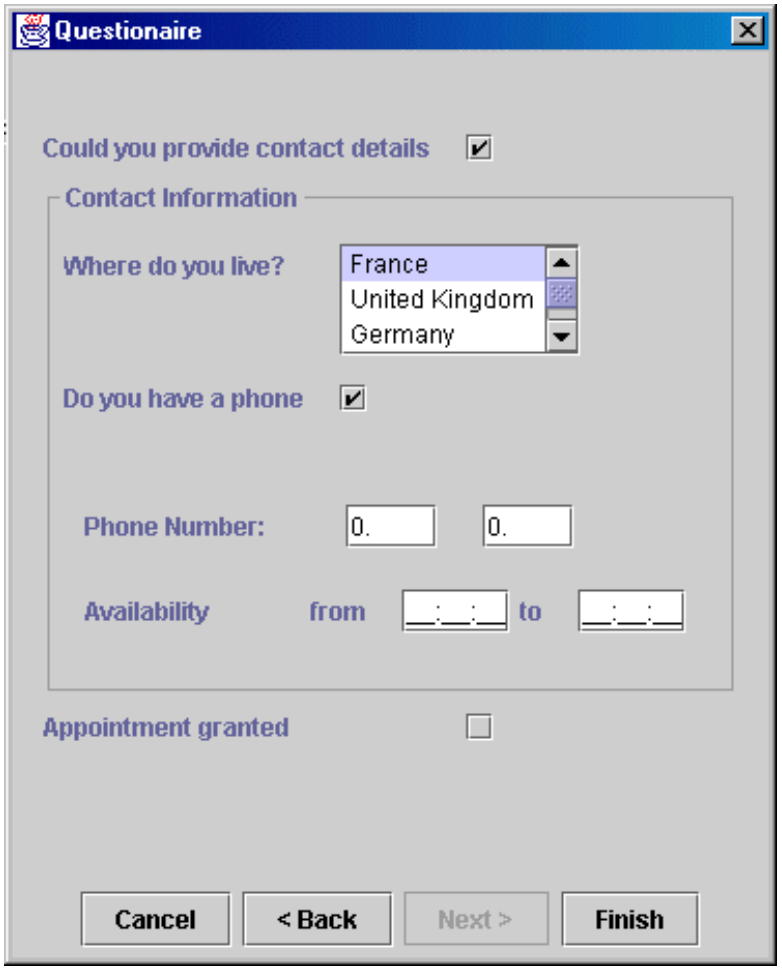
Automatic Layout and Selection of Controls:





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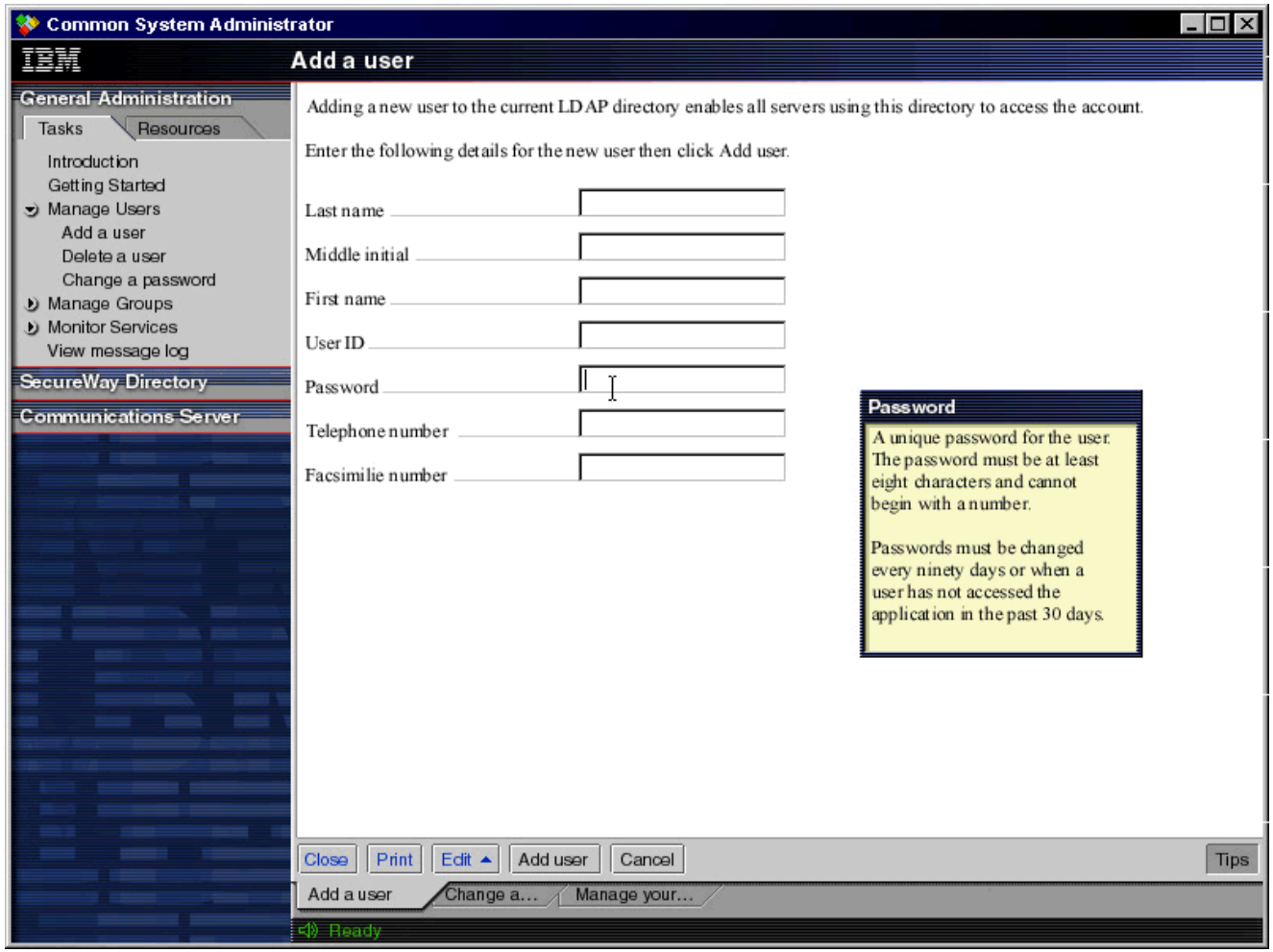
Common Systems Administration

Browser and Java "Concept" Console

- **Allowing Integration of Systems Admin for Multiple servers**
- **Employing Common Tasks & Objects**
- **Through a Device Neutral Interface**



i-Series PDML (UI - XML) 1999

Not intent oriented - Visual Builder for productivity

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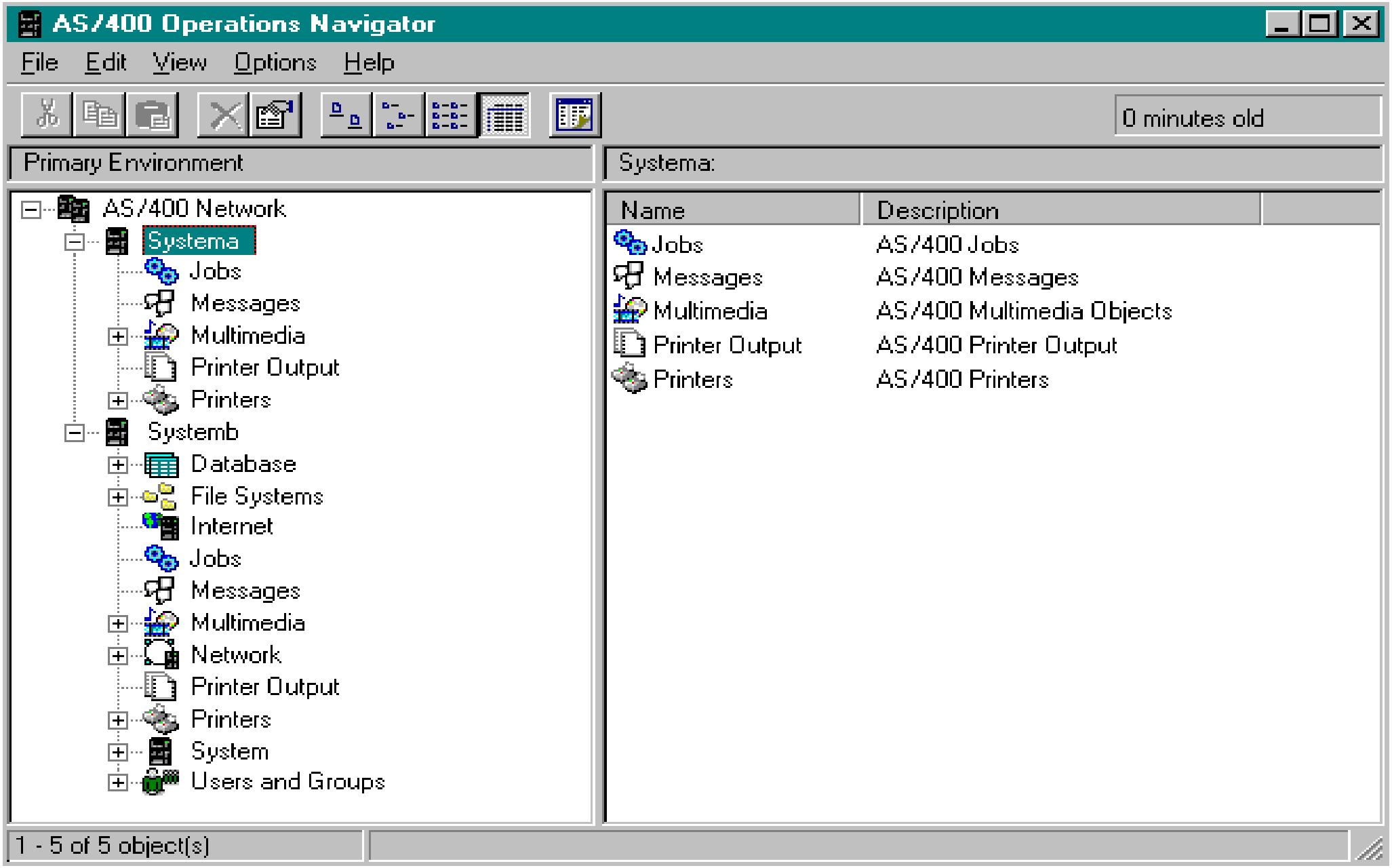

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Converged on Joint Solution (Multi-Group, Multi-Division)

UNITY

- Adopt single set of UI Guidelines
- Adopt AUIML
  - Intent oriented
    - Desktop, Browser, other device…
- Visual Builder
  - Productivity
- Joint Java Console (thick client) & Browser Console (thin client)

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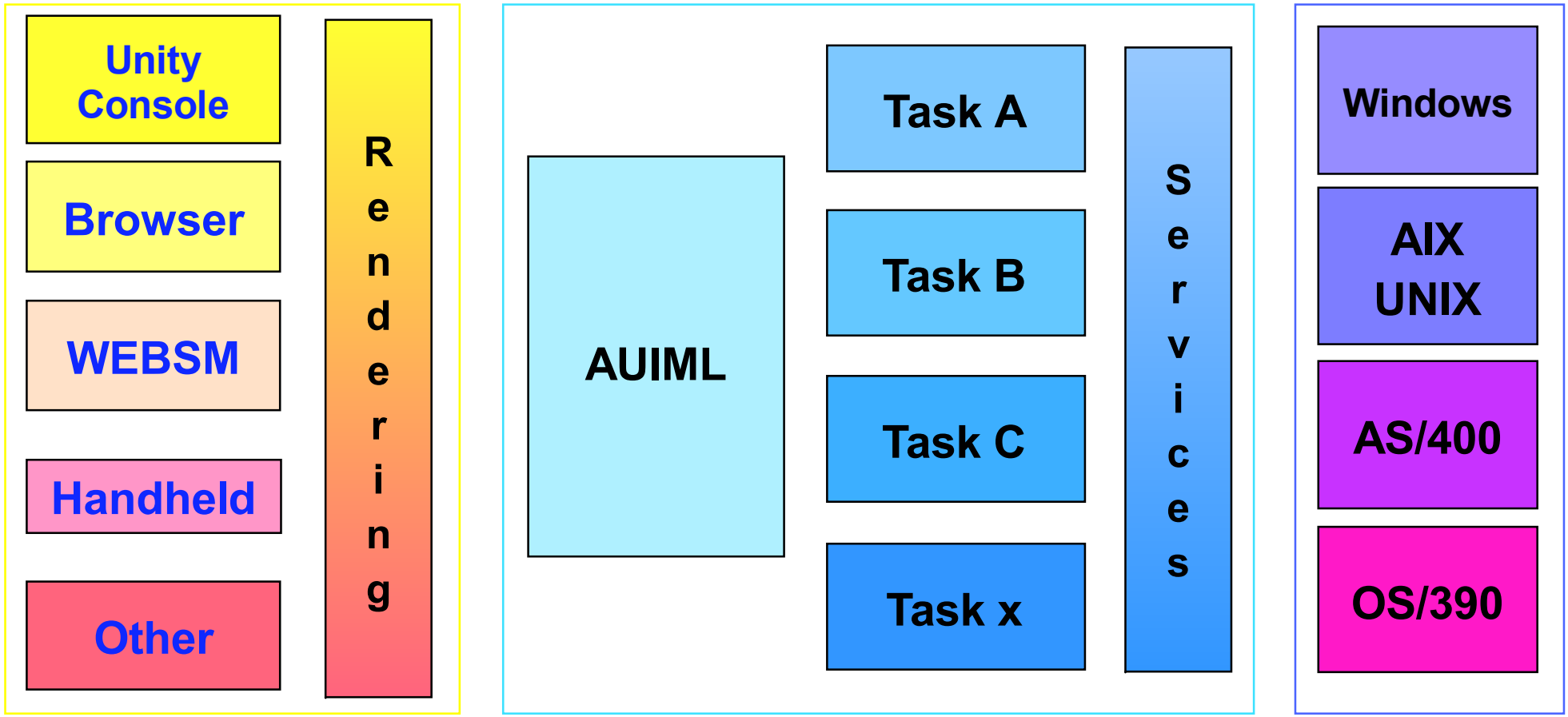
Unity Vision

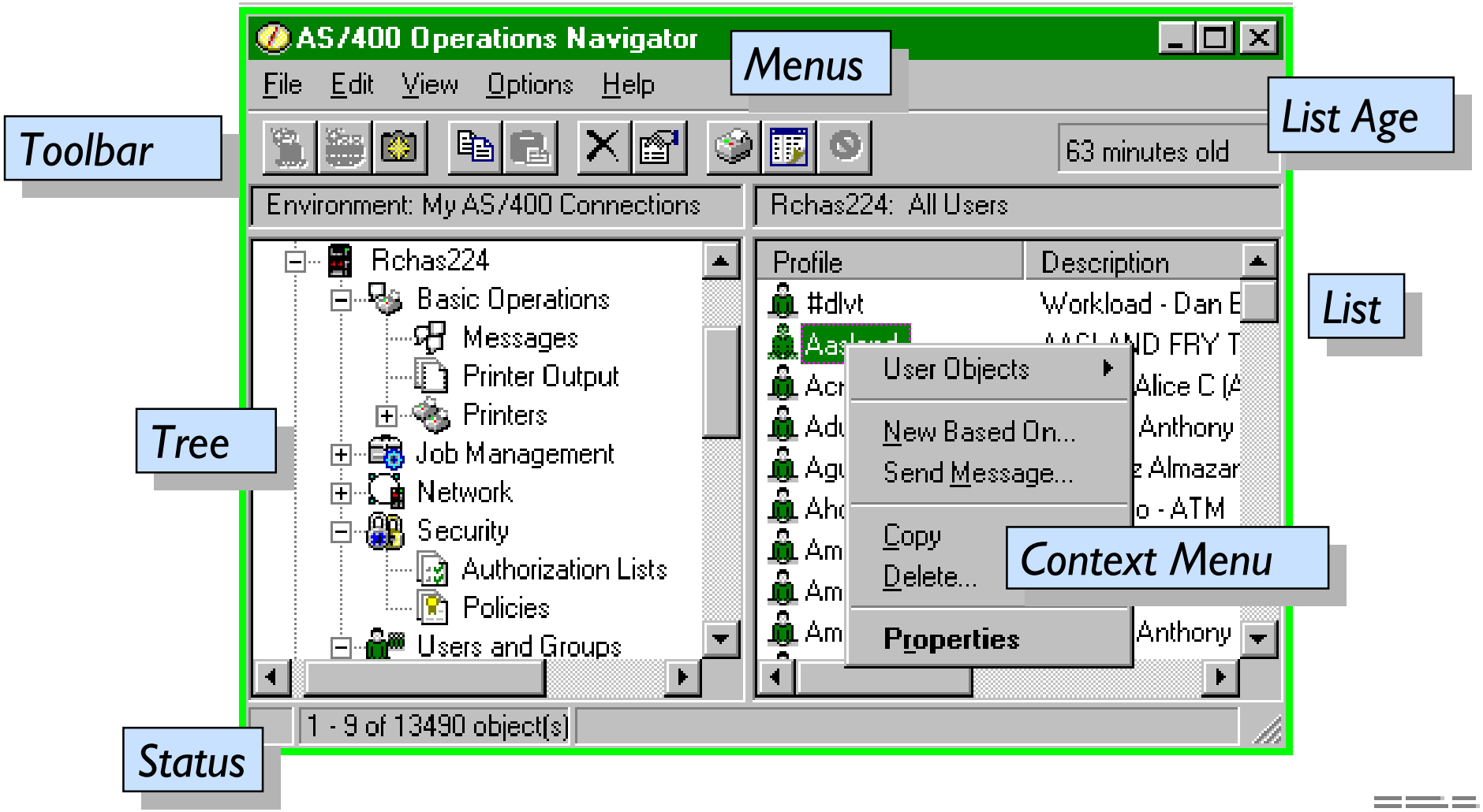
One User Experience for All Administration Tasks:



CSA Unity Objectives

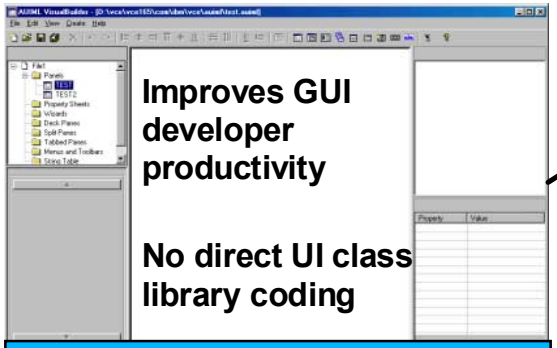
- **User Experience Objectives**
  - **User**
    - **Common Look and Feel - User Interface Architecture**
    - **Integration of Tasks in Single Console**
    - **Deployment on range of Device Classes**
  - **Application Developer**
    - **Intent based Tooling**
      - **Device Class & Interaction Independence**
      - **UIA Conformance & Productivity**
-

Unity User Interface Elements



CSA (Unity) Toolkit Components

AUIML Visual Builder



Improves GUI developer productivity

No direct UI class library coding

Built on SWG Application Framework for e-Business

AUIML XML User Interface Language
(Open - platform independent, technology independent)

Pgm API

Common Renderer API

Java Renderer

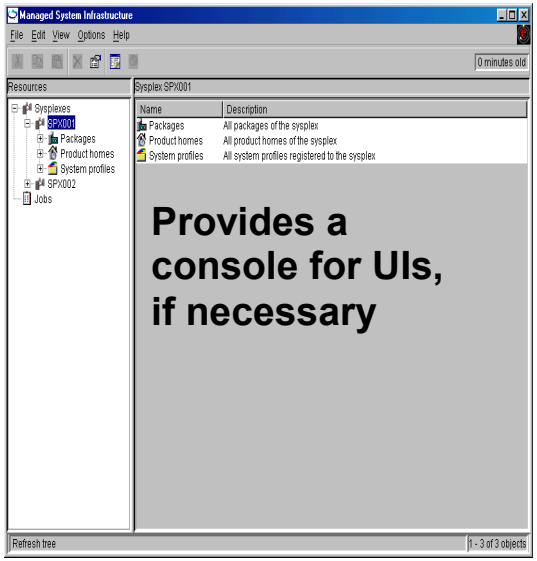
HTML Renderer

Palm Renderer

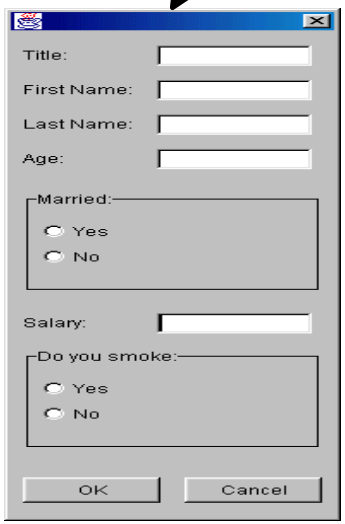
Wireless Renderer

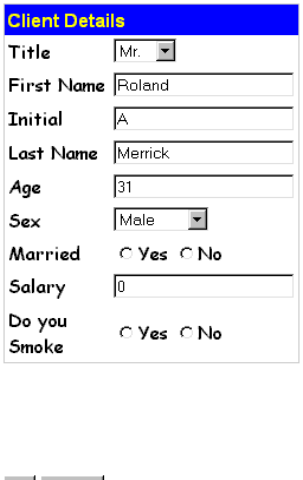
...

Console component (optional)
(Java or HTML)

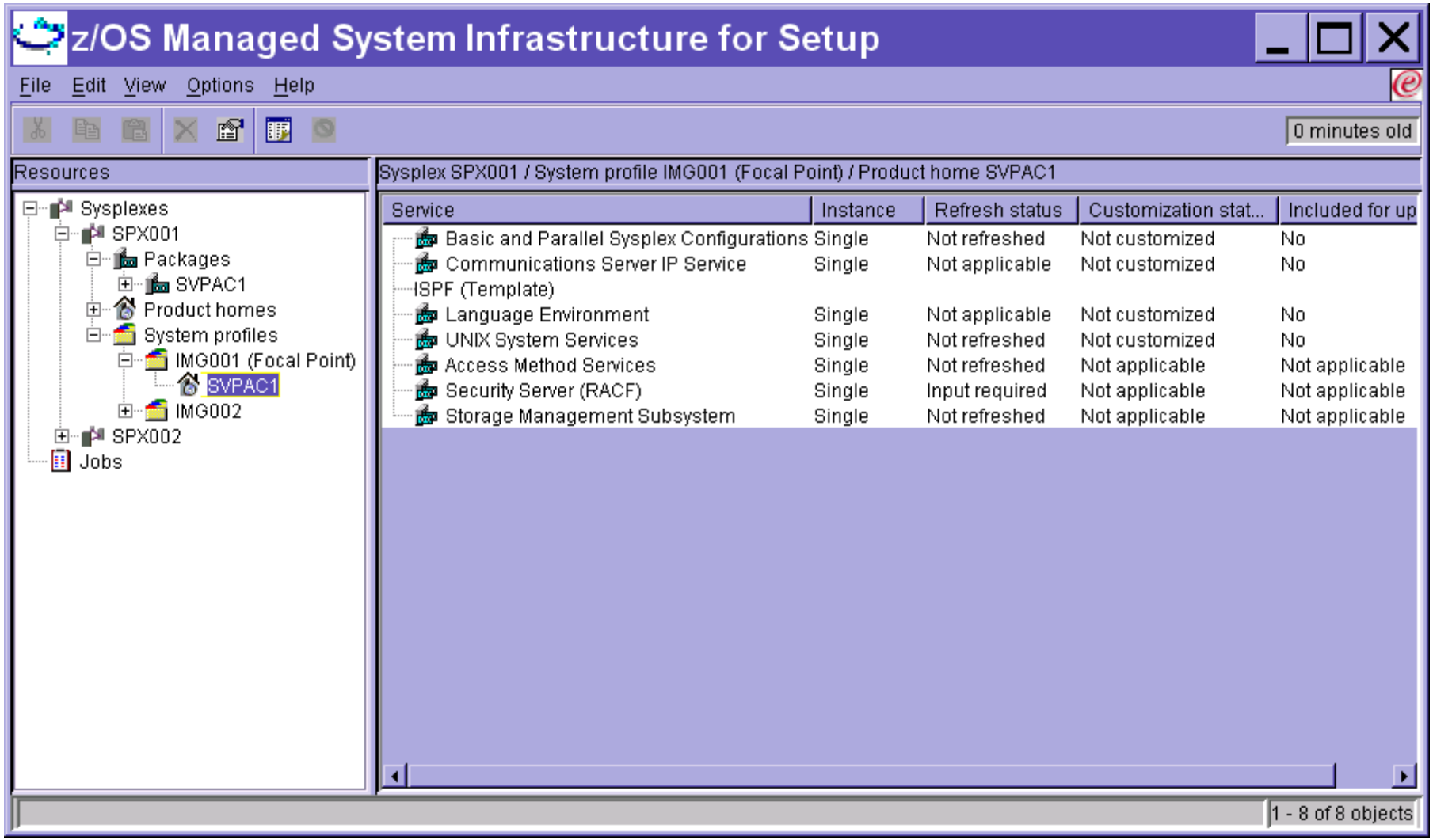


Provides a console for UIs, if necessary

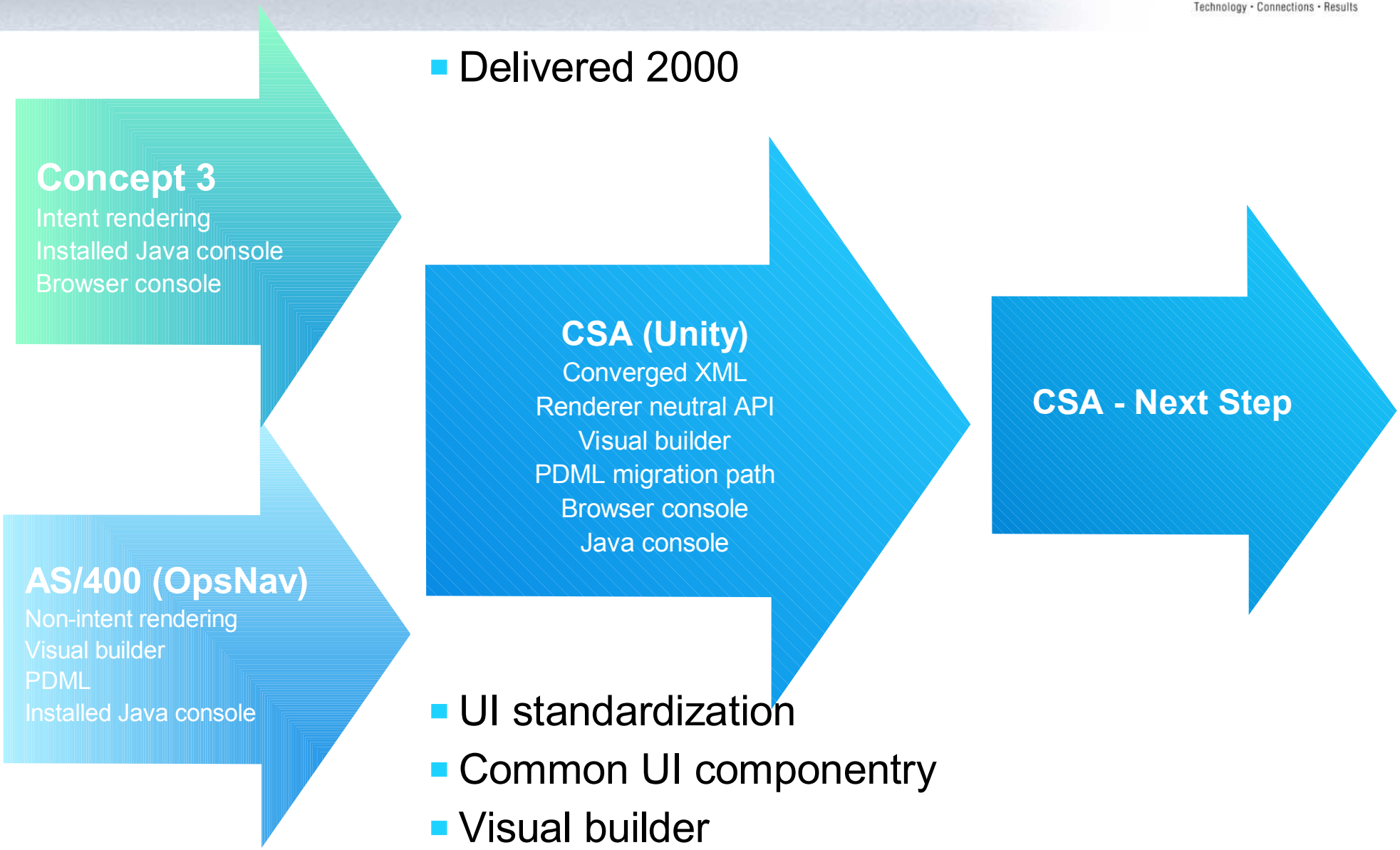




An Early 'Customer' - The msys Console

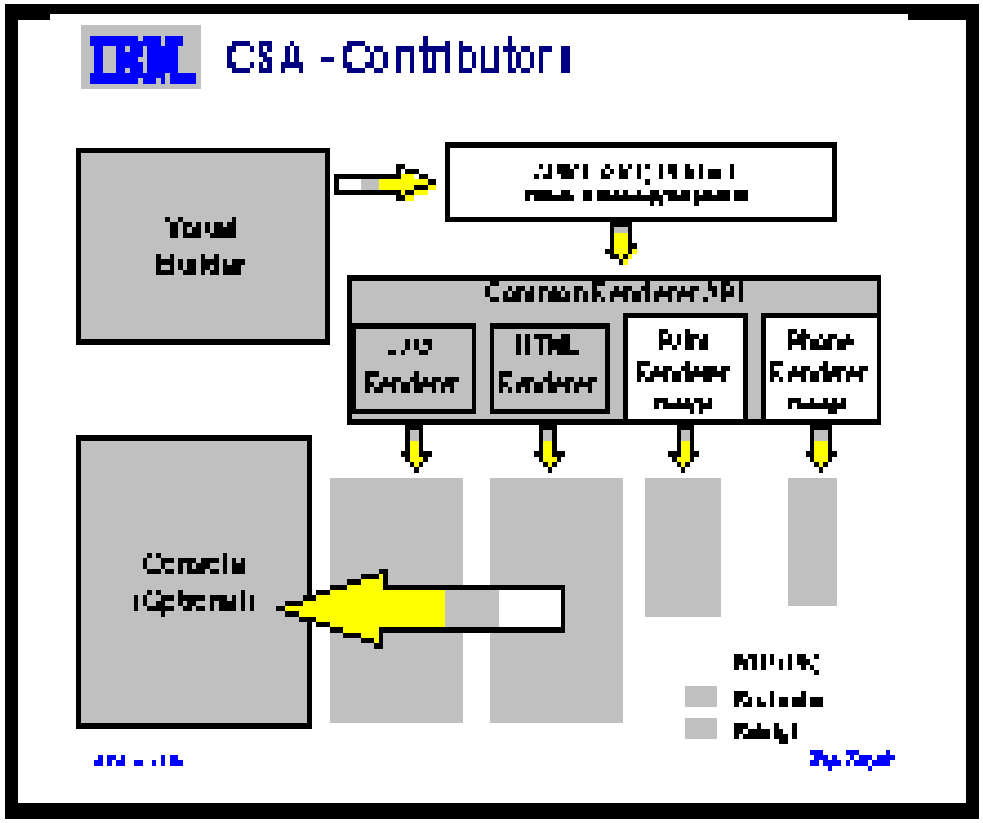


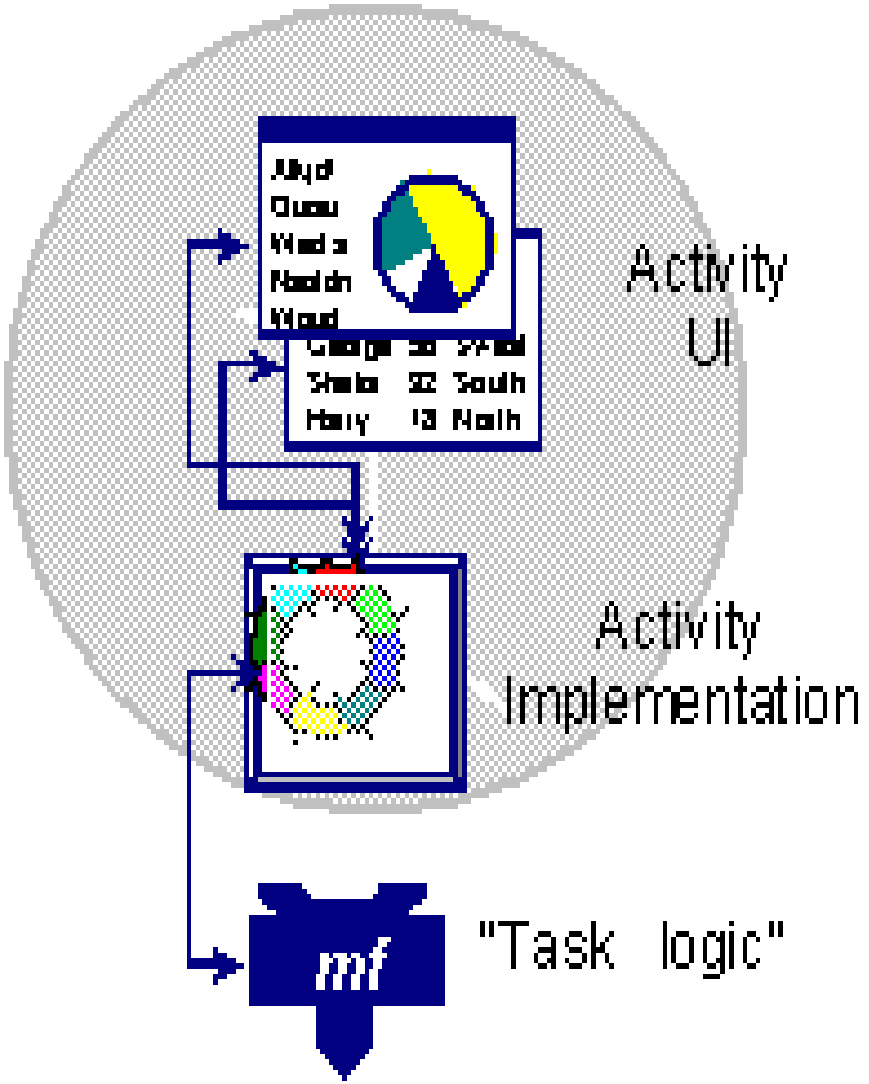
CSA Tooling... Unity Offering



- Delivered 2000
- UI standardization
- Common UI componentry
- Visual builder
- Foundation for the next step

UNITY &Tivoli Integration





- Common UI Guidelines
- Tivoli PS Consoles (Roles Based)
- Joint Toolkit 11/2001

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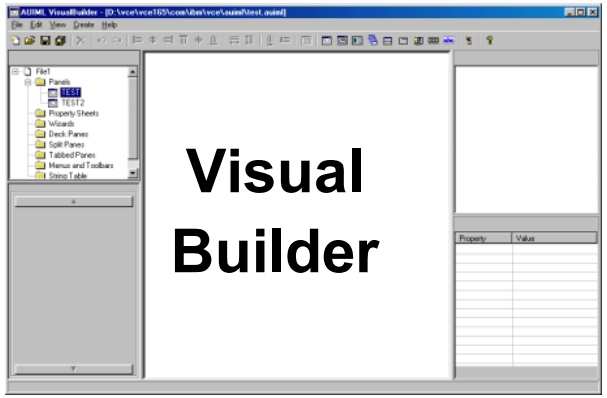
2001 Components



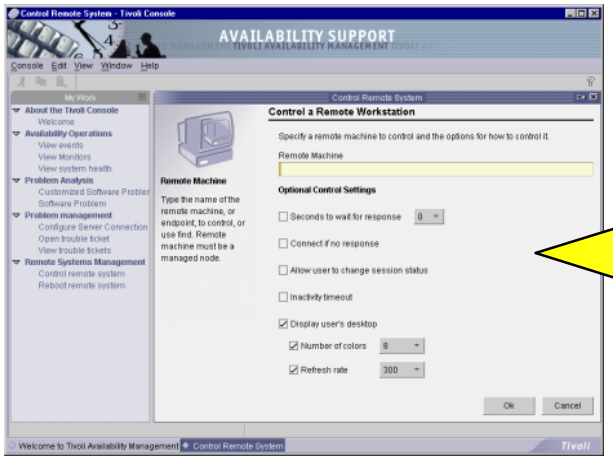
AUIML (XML) UI Intent
Platform & technology independent)

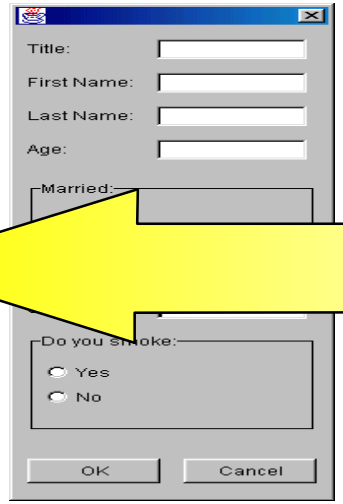
Renderers

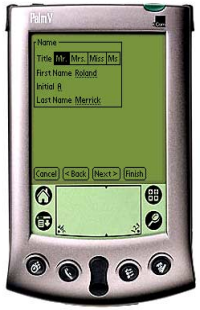
- Java
- HTML
- Palm (Prototype)
- Phone (Prototype)

Choice of Interaction Logic

- Beans
- Script

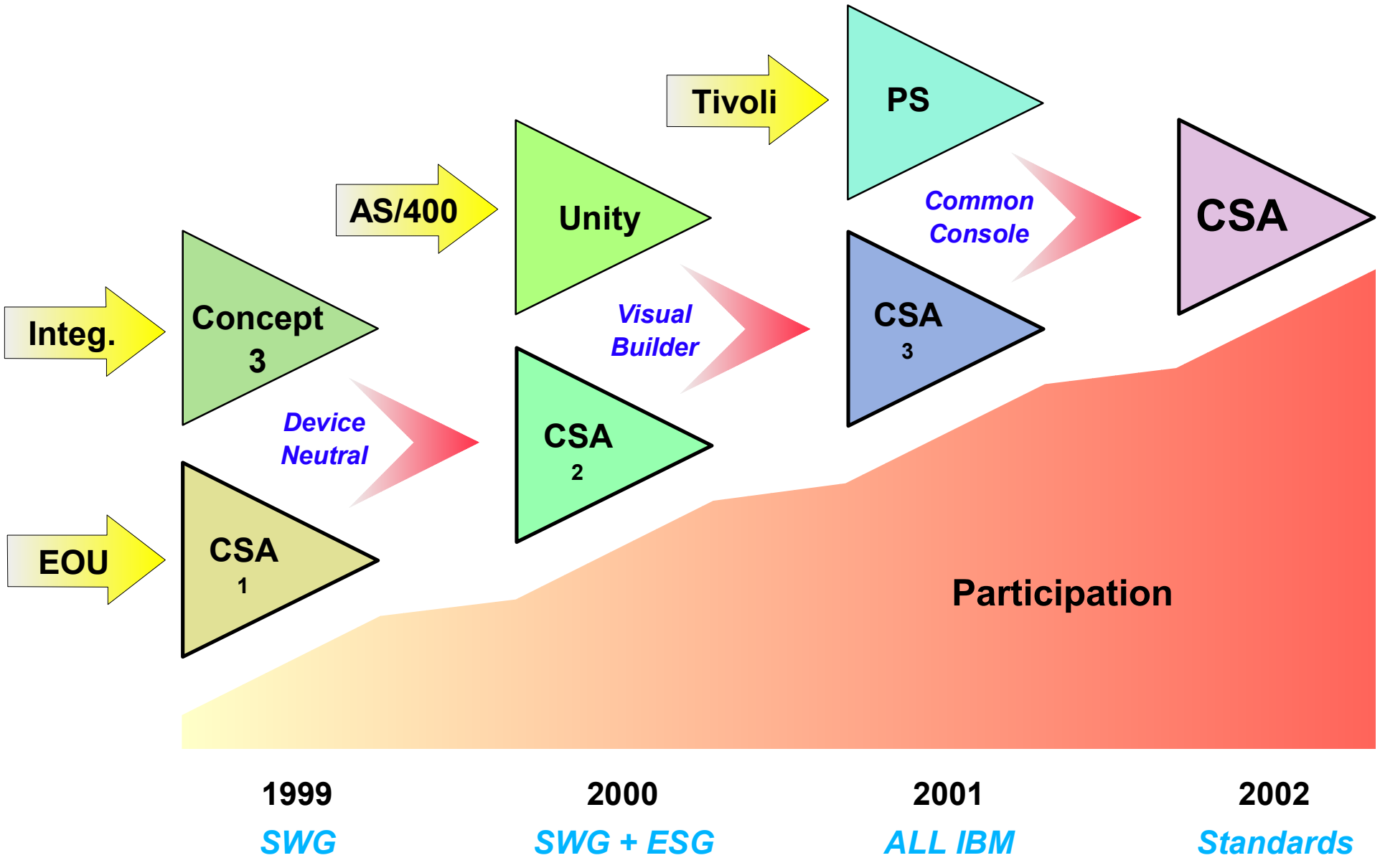






The Next Steps

Continuing CSA Evolution



Which Standards?

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- **Three relevant major standards**
  - **J2EE Programming and Execution Environment (as in Websphere)**
  - **WSIA (Web Services for Interactive Applications) Component model**
  - **XForms**

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XForms - Small Step for AUIMLers

- **Initial Intent -**
  - **Propose AUIML to W3C Device Independence Working Group as a Standard**
- **Instead -**
  - **Amalgamated proposal with other IBM groups**
  - **Jointly worked closely with W3C on XForms**
    - **Ensuring AUIML "Intent Oriented" concepts incorporated into XForms**
    - **Syntax changes**
- **XForms published as Draft Standard**
- **XForms is the natural path from AUIML**

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WSIA & CCI

(Web Services for Interactive Applications & Common Console Interface)

- **Support for migration from existing consoles**
  - OpsNav, WebSM, Msys, IBM Director, Tivoli PS ...
  - EXTREMELY LARGE number of tasks implemented with pre-CSA Tooling
  - CCI will besupported by each console to allow new tasks to coexist
  - Non-disruptive migration/coexistence of those tasks with new tasks over time
  - New tasks able to tun in all consoles & Device Classes
- **Lower development cost, User learns task once, not once per console**
- **Based on industry standards / emerging standards**
  - Web Services for Interactive Applications (WSIA) component model
  - Where relevant, uses J2EE Service interfaces
- **Implemented in CSA Tooling**

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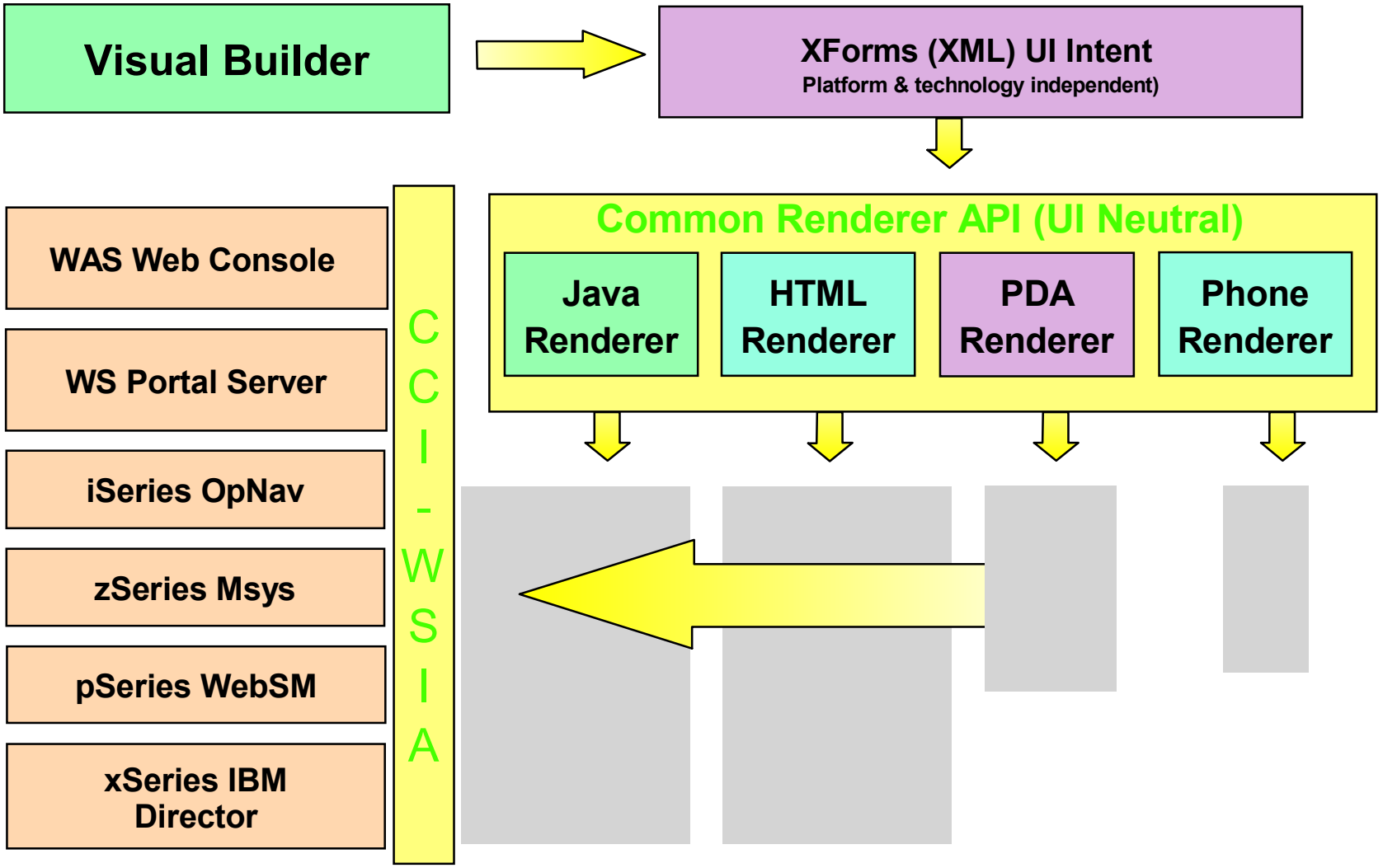
CSA Console Vision



J2EE Environment

- **What makes up a console?**
  - Various console UI components
  - User assistance
  - Solution branding
  - Console install
  - Dynamic task definition, installation & deployment
  - Task activation (servlet, JSP, FU, etc.)
  - Security
  - Role-based task filtering
  - User preference persistence
  - Tracing & logging
  - Session mgmt
  - Connection pooling
  - Directory service
  - Tasks to administer all of the above
- **Most of above services provided by J2EE Environment - Others by WSIA & XForms**
- **Avoids duplication**
- **Avoids non-Standards based activities**

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So... UI UNITY

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Offering From Any Client:

Enterprise Servers

Function Servers

Department Servers

Clients

- **Simplified Administration of Heterogeneous Environments**
- **Seamless Administration of Systems, Users and Services**
- **Support for Reducing Skills Available for Systems Administration**

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