Coordinating Software Development with Eclipse Application Lifecycle Framework (ALF)

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Dream:
What the customer thinks they bought
Nightmare:
What the customer is implementing: point-to-point

Customer view:
Frail, fragile and, frankly, feeble

Vendor view:
We can’t keep up with the rate of change
Time to wake up:
What the customer wants – a standard tool “wall plug”

Customer view:
It’s about time

Vendor view:
The only way we grow the market
ALF = Tool Integration using SOA

• ALF can orchestrate tools to keep their data in sync, especially where other mechanisms are awkward or don’t exist
  - Not all tools:
    - Perform well with real-time integration
    - Provide a remote-able API
    - Provide a command line interface for integration by scripting
    - Run in the Eclipse IDE

• ALF makes integration easier and open takes it out of the hands of vendors
  - Puts control in your hands
So, what are the ALF components

ALF Design Time

- Vocabulaires, Best Practices
- Administration (Eclipse Plug-in)
  - Events
  - Services
- ServiceFlow
- Pluggable BPEL Designer

ALF Runtime

- Applications / tools ALF-enabled
- Identity and SSO tool wrapper (ALF Gateway)
- Event Manager
- Service Orchestration (Pluggable BPEL Engine)
- STS (Higgins, ...)
- Authentication Authority (e.g., LDAP)
- Common Services
Example of BPEL Orchestration

- Event Manager
- Event-Action map
- Vendor A
- Vendor B
- Vendor C
- Vendor D
- Vendor E
- Vendor F
- Service Flow (Orchestration)
  - Release Management
  - Build Management
  - Software Configuration Management
  - Defect Tracking
  - Security Scanning Software
  - Automated Test Suite
So, ALF means…

- Integration with more tools
- Broader integration across the lifecycle
  - Conceptualization, Requirements,
    ...Deployment
- Being in control when upgrading tools
What’s new?

• ALF has been consumed by a commercial product:
  - Serena Business Mashups
    ▪ Released December 2006
    ▪ ALF received additional testing as part of that release
• Added flexibility in interfacing with web services
  - Document literal and RPC variations
• Approaching complete on Eclipse IP Review process
  - Blocking components have been eliminated
• Additional useful services for mashups
  - Relationship Service
What’s Next?

• Refinements to address practical realities of the state of SOA
• Long lived security tokens for BPEL orchestrations
• Expanding the reach of ALF
  ◦ Expanded security credentials via the Eclipse Higgins project
  ◦ Handling non-token-based security
• Looking at
  ◦ Embracing Web 2.0 formats
  ◦ Using mediation servers to incorporate RESTful services into BPEL orchestrations
Thank you!

Check it out and get involved!

eclipse.org/alf
Consumable components/artifacts from ALF

- Event Manager - Event router and filter
- Single SignOn and conveying identity over web services
  - Security token format – SAML based using claims
  - SSO Servlet Filter for web resources/web services
- Invokable coordination/orchestration system to augment a BUILD process
- Utility web services
  - Logging Service
  - Notification Service
- Guidance and best practices
  - Conformance guidance
    - From “come as you are” to full conformance
  - Best practices for WS and BPEL
  - Event definition
  - SAML-based security token format