



Web IV&V

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Topics Overview

- A definition
- Why a “Web IV&V”?
- The facets of the investigation
- Data sources
- The “deliverable”
- Take-aways

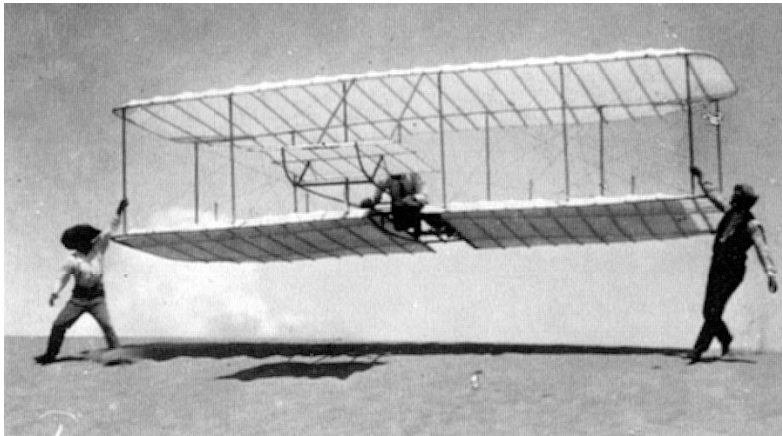
What is a Web IV&V?

- Web – refers to systems and applications that incorporate Web services
 - Distributed authoring and versioning
 - UDDI
 - WSDL
 - SOAP / REST
 - XML
- “Anything” with a browser interface



**Different from “traditional” IV&V
because people “assume” the Web
is easy and managers “understand” it**

Looks Simple

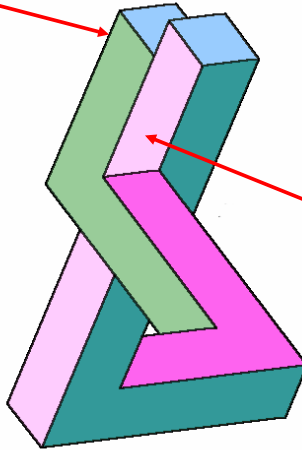


Why a “Web” IV&V?

- Dependence — Web now pervasive
 - Assumed to be “easy”
 - “One throat to choke”
- Cost issues...
 - Cost to upgrade or “get free”
 - Maintenance costs — consume an entire IT budget
 - Integrate with legacy systems
 - Repurpose data / code
- Complexity — discovered “too late”
- Fear of vendor “lock in”
- Enforce Service Level Agreements

Facets of the Problem... Paradoxical

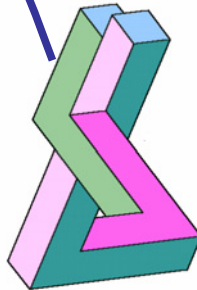
Start here and

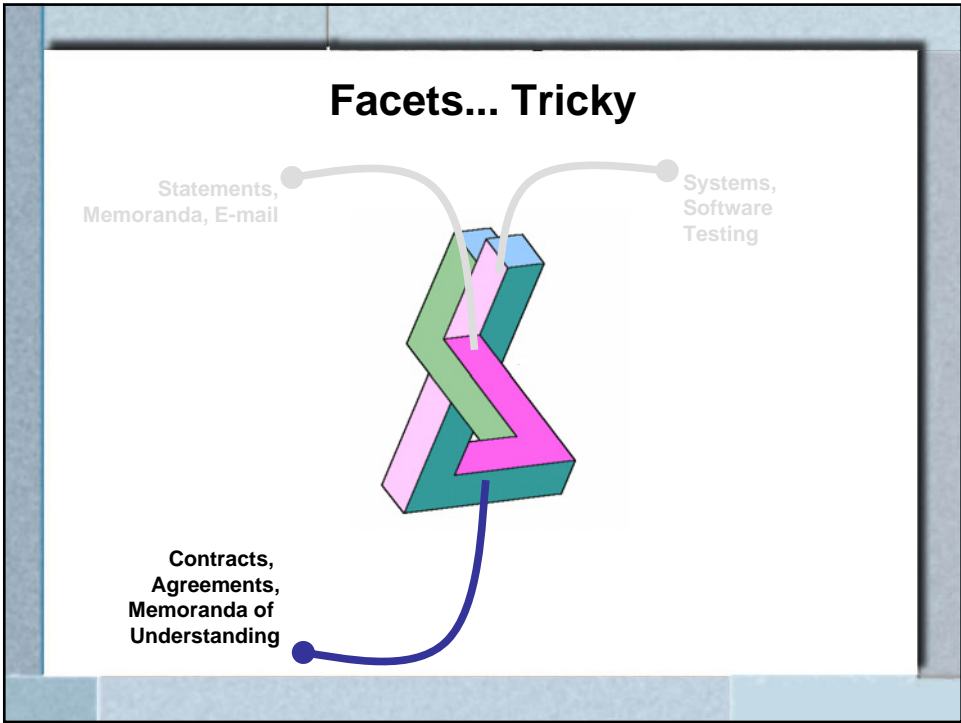
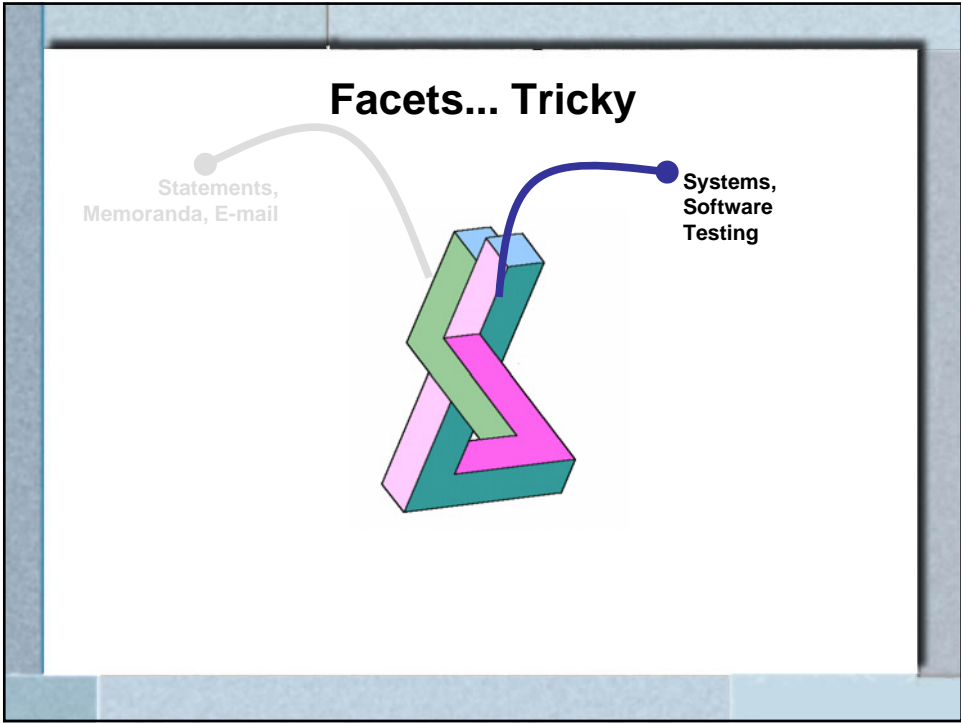


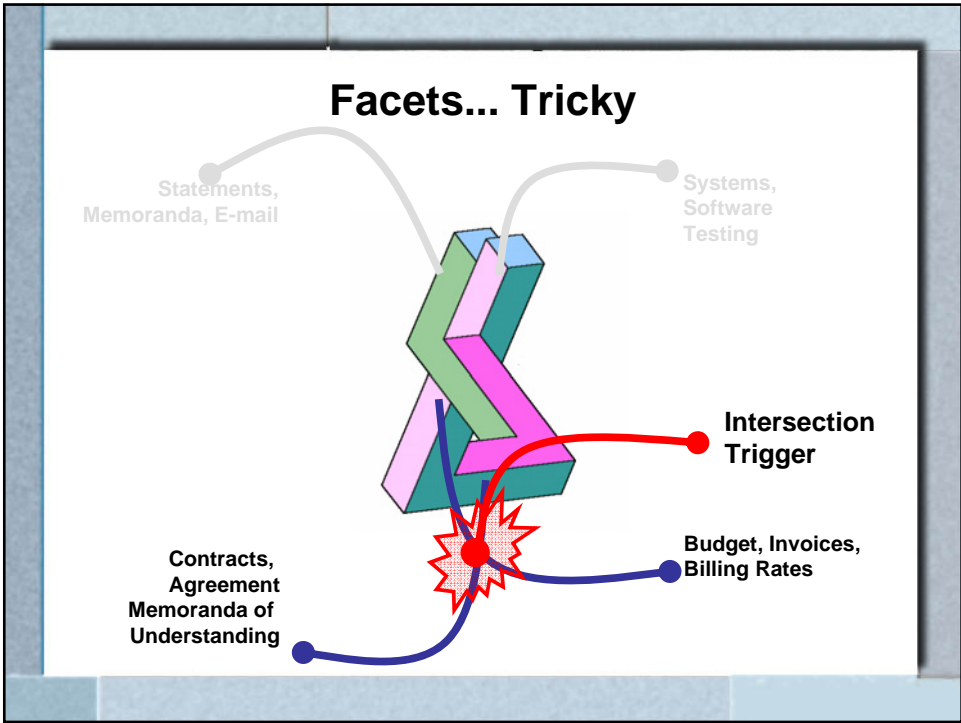
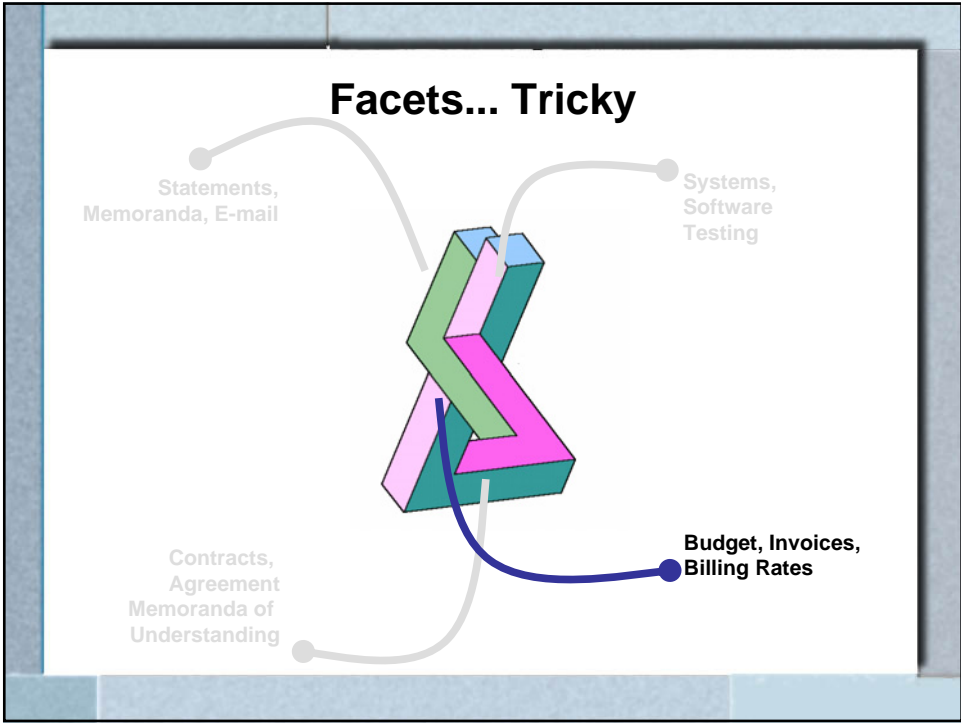
end up in an
interesting place

Facets... Tricky

Statements,
Memoranda, E-mail



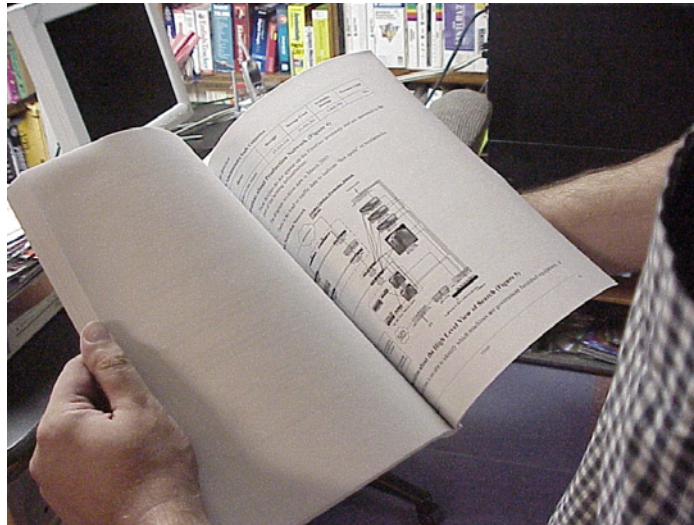




Data Sources

- Hands-on system use
- Documents
 - Contracts
 - Memoranda
- Interviews
 - Vendors
 - Client professionals
 - Users
- Invoices
- Observation
- Benchmark data / studies

Deliverable



The Deliverable

- Background
- Technical information
- Financial information
- Primary research data
- Options
- Recommendations
- Diagrams

How Much Does an IV&V Cost?

- Professional services
 - \$155 / hour overall average
 - Three to 12 weeks
 - Two to 10 people
- Travel
- Third-party services
 - Testing
 - Code review
- Typical cost: \$15,000 and up

Nothing on Google / Amazon

The image shows two screenshots side-by-side. The left screenshot is from Amazon.com, showing a search for "web ivv". The search results are empty, with a message: "Hello. Sign in to get personalized recommendations. New customer? Start here." The right screenshot is from Google, showing a search for "web ivv". The search results are also empty, with a message: "Results 1 - 1 of 1 for 'web ivv'. (0.41 seconds)".

What You Can Read

- Verification and Validation of Modern Software-Intensive Systems -- G. Gordon Schulmeyer, Garth R. Mackenzie
- Software engineering "verification and validation" papers (Software Engineering) Institute
- Information at U.S. Federal Web sites (<http://www.ivv.nasa.gov/index.php>)
- Nato verification and validation documents (<http://www.ora.on.ca/nato/welcome.htm>)
- ACM verification and validation papers
- ArnoldIT Web site: www.arnoldit.com



**Requires technical, financial, and
“detective” skills ... distributed
systems and virtual applications
are not well understood yet...**

Arnold_IT

- “The Enterprise Search Report”, 2nd edition comes out in July 2005
- “The Google Legacy” comes out in August 2005
- Description of my consulting practice at www.arnoldit.com/sitemap.html
- For questions or comments: sa@arnoldit.com