Anthony I. (Tony) Wasserman has recently started Software Methods & Tools, which provides information to application development organizations through a WWW site (www.methods-tools.com) and consulting services.

He was previously Founder and Chairman of Interactive Development Environments, Inc. (IDE), where he was an architect of the innovative Software through Pictures environment. As President and CEO of IDE from 1983 to 1993, he made IDE a leader in the CASE industry.

Prior to starting IDE, Tony was a professor at the University of California, San Francisco, and a Lecturer at UC Berkeley. His research spanned several areas of software, including software engineering, database management, programming languages, and human-computer interaction.

Wasserman is one of a handful of people selected as both a Fellow of the ACM and a Fellow of the IEEE. He also received the first award (1995) for distinguished service to the software engineering community from ACM SIGSOFT.

Dr. Wasserman earned a Ph.D. in Computer Sciences from the University of Wisconsin-Madison and an A.B. in Mathematics and Physics from the University of California, Berkeley.

Biography
To COTS or not to COTS?

- Use of prebuilt components, frameworks, and applications is no longer an issue
  - Time to build custom software is too great
  - Error rates for custom software are too high
  - Good designers and developers are scarce
  - Quality and quantity of components increases
- Component and framework builders are disinclined to build custom versions
- Off-the-rack software replaces bespoke software
Design with components and frameworks

- Stable interfaces from component suppliers
- Intellectual challenges are in requirements analysis and software architectures
- Large projects underway with this approach:
  - IBM San Francisco
  - Andersen Consulting Eagle
- Reward for code delivered, not code written
- Reuse by another name...

What to look for in components

- Complete interface specifications
- Use of standard user interface styles
- Use of standard messaging styles, e.g., CORBA
- Use of other standards, e.g., ODBC for databases
- Performance data
- Vendor support
Components can beat custom code

- Database management systems
- Object request brokers
- Mathematical libraries
- Parsers, compilers, code generators
- Graphical user interface builders

Just to name a few...

The Supplier’s View

- Commercial customers have severe time pressures; reduced development time and costs improve margins and profitability
- Customers will license components and frameworks from reputable suppliers; components are the intellectual property of the supplier
- Customers will establish strategic relationships with vendors of strategic components and frameworks
- Developers will see greater constraints on certain aspects of development