



M&T SIG

**Bertrand Braunschweig
Heidelberg, March 8th, 2007**



SIG members

- ◆ **Bill Barrett** US EPA
- ◆ **Lars von Wedel** AixCAPE
- ◆ **Mark Lichtenauer & Joe Holmes** HTRI
- ◆ **Pascal Roux** IFP
- ◆ **Richard Szczepanski** Infochem
- ◆ **Jean-Pierre Belaud** ENSIACET
- ◆ **Alan Scott** TUV-NEL
- ◆ **Marcel van Maasdam** Shell
- ◆ **Tony Wheeler** Dow
- ◆ **Tom Williams** PSE
- ◆ **Bertrand Braunschweig (chair till today)** IFP



Main objectives

**Define software Methods and Tools
applicable to CAPE-OPEN standards**

◆ **Key responsibilities**

- ⇒ **Deliver recommendations, supporting software tools, and check conformance of specifications proposed by other SIGs.**
- ⇒ **Extend the application of CAPE-OPEN standard to the .NET framework.**



2006 Objectives

- ◆ **1. Define best practices/cookbook for developing COM CO-compliant components using .Net**
 - ⇒ deliverable: a document on "how to do CAPE-OPEN COM with .Net"
 - ⇒ no new interface spec, some sample code
 - ⇒ Delivered
- ◆ **2. Study on the + and – of moving to native .Net interfaces for CAPE-OPEN**
 - ⇒ technology, performance, functionality, business value
 - ⇒ deliverable: recommendations on what to do next and how
 - ⇒ Delivered

Additional deliverable

- ◆ **CO with .Net training course yesterday**
 - ⇒ **Instructors: Bill Barrett & Lars von Wedel**
 - ⇒ **20 attendees**

- ◆ **Objectives**
 - ⇒ **Introduce .NET – What is it ? Advantages ?**
 - ⇒ **How can .NET communicate with COM?**
 - ⇒ **How can we use and implement CAPE-OPEN interfaces with .NET ?**



Possible Applications of “CO with .Net”

- ◆ **COM PMC in a COM PME**
 - ⇒ AKA Classic CAPE-OPEN
- ◆ **.NET PMC in a COM PME**
 - ⇒ Typical scenario
 - ⇒ Example develop a unit op for use in existing PME (eg COFE).
- ◆ **COM PMC in .NET PME**
 - ⇒ Enable your PME to use legacy PMCs
- ◆ **.NET PMC in .NET PME**
 - ⇒ Next generation modeling paradigm.
 - ⇒ Prepare your PMCs for the future.



Highlights of CO-Lan's .NET Roadmap

- ◆ **Create Primary Interop Assemblies from existing COM Type Libraries**
- ◆ **Current interface development must include .NET-based interface definitions.**
- ◆ **CAPE-OPEN will become .NET-based. Future versions will consist of .NET assemblies. COM interface definitions will be exported from .NET assemblies.**
- ◆ **Draft and final .NET-based interface class assemblies will be strongly-named and will be formally published on colan.org.**



Deliverables for 2007

- ◆ (CO with .Net training session in Heidelberg)
- ◆ A guidance document that can be used by other SIGs to develop/update to native .Net-based interfaces.
- ◆ Prototype .Net unit operation or property package as deemed appropriate. The prototype source code will be made available to end-users trying to develop .Net components.
- ◆ A wiki-based website for sharing problems and solutions for all SIGs.





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