

## **OpenCCM: Status and Work plan**

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**ObjectWeb ArchitectureMeeting,**  
**Grenoble,21 – 22January2002**

**<http://corbaweb.lifl.fr/OpenCCM/>**  
**<http://www.objectweb.org/OpenCCM/>**



[www.objectweb.org](http://www.objectweb.org)



## **OpenCCM Objectives**

### **→ Be the 1st reference implementation of the CORBA Component Model( CCM)**

- Validate the current specification
- Contribute to next revisions
- Propose future extensions

### **→ Be the Open CORBA Component Model Platform**

- Open source
- ORB independent
- Adaptable, customizable,...

### **→ Be a worldwide used platform dedicated to R&D activities around next Distributed Component Computing and Middleware technologies**

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## Current OpenCCM 0.2

### → 1st public available implementation of the **OMG CCM**

#### → Fully written in Java

- portability, maintenance and support
- Linux, Solaris, and Windows supported
- ORBacus 4.x, OpenORB 1.x, and VisiBroker 4.5 supported

#### → An open compilation & generation toolchain

- An OMG IDL3 Compiler
- An OMG IDL3 Repository
- A generator for equivalent **OMG IDL2**
- A generator for extended Java skeleton classes

#### → A flexible distributed deployment & execution middleware infrastructure

- A generic Java server to host Java components
- API to control component servers and download component archives
- Deployment driven by **OMG IDLscript**

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## Next OpenCCM 0.3

### → Conformance to the finalized **CCM specification**

- **OMG IDL 3.0**
- **Interface Repository 3.0**
- **Component model API**
  - with minor improvements/corrections
- **Client-side IDL mapping**
- **Local server -side IDL mapping**
  - both monolithic & executor/locator approaches supported
- **Part of new deployment API**
  - excepts **Server Activator, Assembly Factory, and Assembly**

#### → Technically

- Java IDLscript embedded
- Generators ~ scripted templates
- Basic open container framework
- Only ORBacus 4.1 supported (sic!)

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## Next Features for Next Releases

- **ComponentImplementationDefinitionLanguage( CIDL)**
- **PersistentStateDefinitionLanguage( PSDL)**
- **ComponentImplementationFramework(CIF)**
- **Containersforbasicsystems-services**
  - security,persistence,transactions,andnotification
- **Packaginganddeployment**
  - ZIPArchivesandXML DTDs
  - ServerActivator, AssemblyFactory,andAssemblyinterfaces
- **VariousGraphicalUserInterfaces(GUI)**
  - fordesigning,assembling,deployment,andmanagement
- **GeneratorandruntimeforC++components**
- **OMG IDL/CIDL/PSDL to XMI mapping(for UML tools)**
- **NewORBsupported**
  - JacORB 1.4, Orbix 2000, MICO,TAO, omniORB 4,...

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## Work plan for 2002

- **Finalizenext OpenCCM 0.3(02/02)**
  - Stabilizecurrentdevelopments
  - Apply ObjectWeb projectconventions(ifany?)
- **Moveto ObjectWeb (03/02)**
  - Webpages,mailinglists, GPL/LGPL,CVS,ANT
- **Newdevelopmentstosupport**
  - CIDL / PSDL (05/02)
  - XMLdescriptors(06/02)
  - Basicsystems-services(07/02)
  - C++generator&runtime(08/02)
  - XMI generator& UML profile(09/02)
- **Provideintermediaryreleasesandinternaldesigndocumentations**
  - Openthe OpenCCM developercommunity

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No	ChapterContent	OpenCCM StatusandWorkplan
3	OMG IDL	0.3
10	InterfaceRepository	0.3
60	OMG CIDL	2Q2002
61	ComponentModel	0.3
	Client-sidedmapping	0.3
615	CIF	2Q2002
	Server-sidedmapping	0.3
62	ContainerAPI	2Q2002
64	EJB interworking	2003?
69	Packaging	2Q2002
	DeploymentAPI	0.3 2Q2002
695	XML DTD	2Q2002
70	IDL metamodel	3Q2002
80	CIDL metamodel	3Q2002

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ObjectWeb Open Source Middleware		Work plan Related to ObjectWeb
<p>➔ <b>Reusing most of basic common component frameworks like MonoLog, etc.</b></p> <ul style="list-style-type: none"> <li>➤ Todo during 2002</li> </ul>		
<p>➔ <b>Integration with other ObjectWeb projects</b></p> <ul style="list-style-type: none"> <li>➤ Jonathan for its future CORBA 2.6 personality</li> <li>➤ JOnAS for its distributed transactions service</li> <li>➤ JORM for its generic persistence service</li> <li>➤ JORAM for its reliable asynchronous middleware</li> <li>➤ To start at 4Q2002</li> </ul>		
<p>➔ <b>Contributing to next common component frameworks</b></p> <ul style="list-style-type: none"> <li>➤ Open containers and application servers</li> <li>➤ Distributed deployment infrastructure</li> <li>➤ Component repositories</li> <li>➤ Todo during 2003</li> </ul>		

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## OpenCCM R&D at LIFL

### → Composite Design and eXecution (CODEX)

- A framework to design structured aspect oriented ADL
- A structured aspect oriented ADL for OpenCCM
- PhD student Raphael.Marvie@lifl.fr

### → TORBA / TOSCA

- Trading components built with OpenCCM
- Trading-based deployment and supervision in OpenCCM
- PhD student Sylvain.LebLANC@lifl.fr

### → Open containers for critical applications

- A framework for building extensible & efficient containers
- Applied to CORBA Real -Time, Fault -Tolerance, and Load Balancing
- In cooperation with Thalès, PhD student Mathieu.Vadet@lifl.fr

### → Some research contracts

- ACI GRID RMI: GRID metacomputing
- RNTL IMPACT: OpenCCM - ObjectWeb
- RNTL ACCORD: UML Profile for CCM
- RNRT COMPiTV: Components for electronic TV
- IST COACH: Secure CCM platform for critical telecom applications

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