

The Training Programmes

The CoSpaces training programmes are designed to meet identified needs to deploy CoSpaces solutions in industry. Individual CoSpaces training components are designed to meet the expectations of four sets of professionals – Business Managers, Engineering Managers, Project Teams and IT Specialists – as well as to provide training materials for researchers and academia. Each training programme aggregates a set of focused training courses with the purpose of delivering suitable training to the identified target groups:

CoSpaces Training Programmes

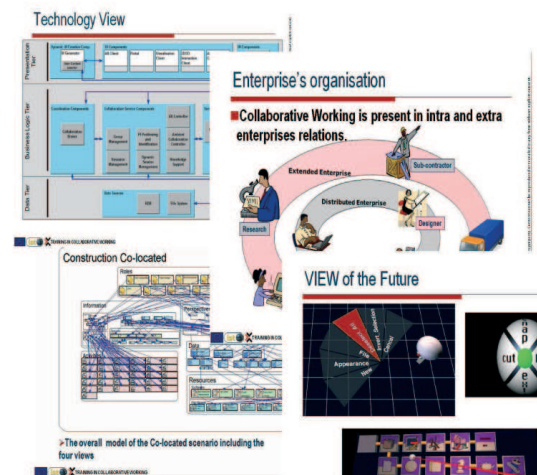
Business Managers	Engineering Managers	Project Teams	IT Specialists
FCW EFB	FCW CCS MPI DDC DCO EFB	FCW CCS MPI DDC	FCW CCS CAC CUI

Training delivery takes place in **physical and virtual classrooms**, and **online**, in a web-based format. All training event details (e.g. how to access training) are being made available on the Training page of the CoSpaces website. **CoSpaces web-based courses will be available from 15th December 2009.** The schedule for virtual classroom sessions is presented in the following table.

Course	Person Responsible	Date
FCW	Joao Sarrapia, UNINOVA	25 / 11 / 09
MPI	Harshada Patel, UNOTT	02 / 12 / 09
CCS	May Bassanino, USAL	11 / 12 / 09
DDC	Harshada Patel, UNOTT	13 / 01 / 10
CAC	Alexandros Syllignakis, NTUA	20 / 01 / 10
CUI	Alexandros Syllignakis, NTUA	27 / 01 / 10
EFB	Simon Hardiman, CARSA	03 / 02 / 10
DCO	Simon Hardiman, CARSA	10 / 02 / 10
all Trainings start at 10 am GMT		

The CoSpaces Training Courses are:

- FCW** – Fundamentals in Collaborative Working
- DDC** – Design & Development of Collaborative Workspaces
- MPI** – Models, Profiling & Implementation
- CCS** – Collaborative Workspace Case Studies
- CAC** – CoSpaces Architecture & Components
- CUI** – CoSpaces User Interfaces
- EFB** – Enabling New Forms of Business
- DCO** – Deploying CoSpaces from an Organisational Change Perspective



CoSpaces Demonstrator Videos Now Available

- Distributed Design Review Demonstrator
 - Co-Located Workspace Portal Demonstrator
 - Mobile Maintenance Demonstrator & Danish Video Interview
 - Workspace Prototype Demonstrator for the Construction Industry
- Videos can now be viewed at www.cospaces.org/demonstrators.htm

CoSpaces Newsletters, Publications & Other Public Media

are now available for download at www.cospaces.org/downloads.htm

Innovative Collaborative Work Environments For Design And Engineering



Coordinator's Message

Modern highly flexible manufacturing processes require both effective control and maintenance of production systems in order to assure their highest availability and efficiency. Good product design plays a critical role in production efficiency, quality and capacity utilisation. However, production control and monitoring are often separated from the original design team as a downstream process, even though they represent a critical feedback loop for timely design improvement. While there is usually an abundance of technologies deployed in product design and the production floor, how we structure the processes, the people and the feedback mechanisms for design and production is as important as the technology choices that are made.

product design, production and maintenance. Organisations are able to identify and exploit new feedback loops within the organisation that can lead to real-time adjustments to products and production processes. The goal of the CoSpaces project is to achieve higher product quality, optimised production and lower maintenance costs through a combination of collaborative workspaces that allow each actor in the product lifecycle to participate and work together in real-time, irrespective of location, and organisational analysis that helps streamline the way people work together. We are seeing the benefits of this approach as we progress the industrial trials of the CoSpaces technologies and organisational analysis methods in the Construction, Aerospace and Automotive industries.

The CoSpaces project combines these two key elements of organisational structure and technology to enable manufacturing organisations to move to higher levels of collaboration for

Find out more by visiting our website at www.cospaces.org



CoScope Methodology: Improving Collaborative Team Performance

The CoScope Methodology focuses on the extent to which the fundamental conditions for collaboration are created, sustained and standardised across teams and organisations. CoScope provides an organisation with a profile of measures and attributes that indicate the maturity or sophistication of each of the most important collaboration processes.

Companies are assessed on four lifecycle processes: delivery, team working, support and organisational processes. The involvement of different stakeholders identifies contrasting perceptions and differing understandings of the collaborative process, and can help to improve communication and understanding of collaborative processes among team members.

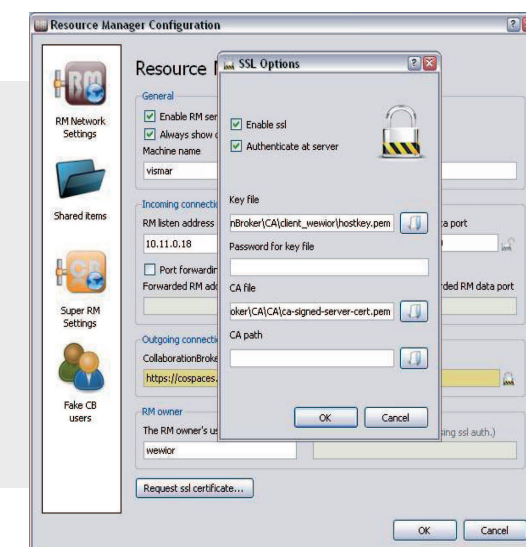
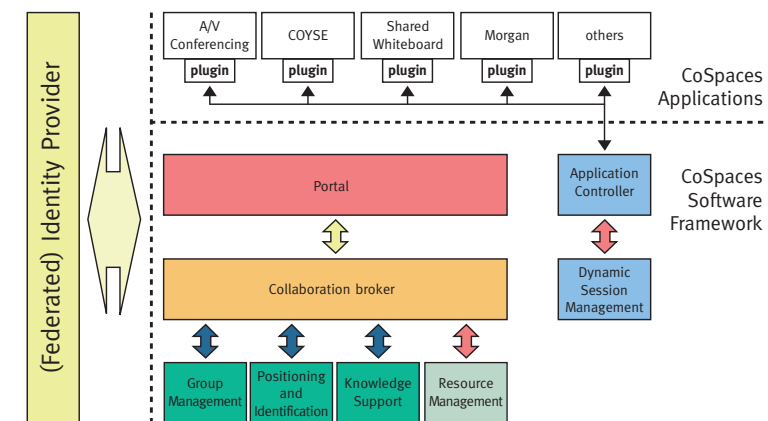
Six process attributes are used in CoScope to measure the capability of organisational processes, specifically whether or not: a certain process or task is performed; employees have the skills to perform these processes; processes are planned and tracked; adequate resources are available to perform the processes; the process is performed consistency across the organisation; a high level of quality is achieved in performing the process.

CoScope collaboration maturity profiles highlight areas of strengths and weaknesses within an organisation, providing a measure of current collaboration capability. This can enable assessors to provide clear and concise guidelines to organisations seeking to improve collaboration by introducing new processes, mechanisms and structures, and supporting technologies. CoScope results will also allow guidance for change to be tailored to the specific situation and goals of the organisation, thus helping to drive and measure progress towards organisational-specific objectives. CoScope can be used to re-assess collaboration following the implementation of any changes. The methodology is broad enough to accommodate the different collaboration styles found in commercial and public entities.

The CoSpaces Software Framework

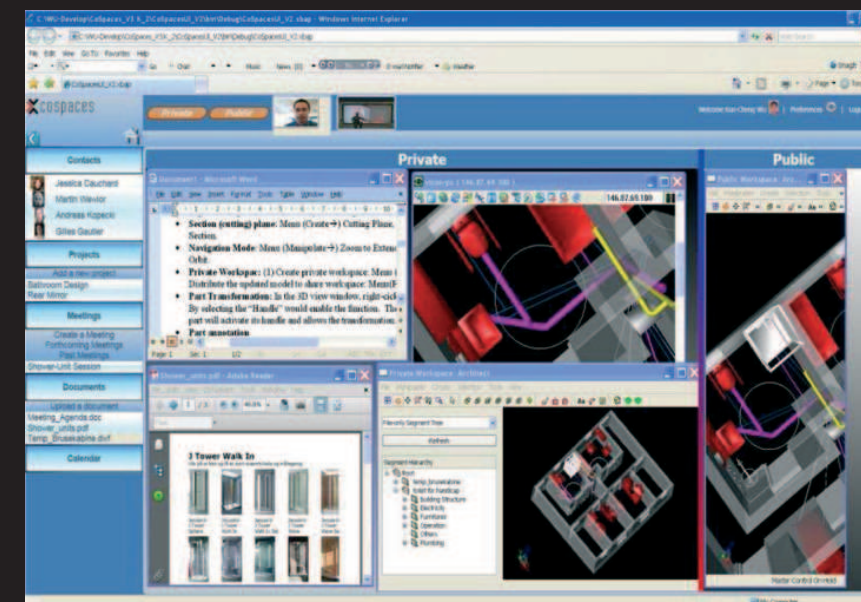
The CoSpaces Collaboration Broker, a central component that orchestrates all tasks and inter-component communication within the framework, has reached the final prototype stage and now supports user scenario requirements for offline and real-time collaboration.

The Resource Manager component, with its new graphical user interface, has also reached the final prototype stage and now supports the secure collaborative sharing of large data (e.g.: 3D models) and other content types across different domains. The security infrastructure has been integrated into each framework component, a task that required some modifications to the Collaboration Broker's user management as well as the integration of mechanisms for exchanging and managing trusted certificates with the Resource Manager. An Open VPN-based solution is used to minimise the number of ports that need to be configured to enable distributed collaboration across organisational boundaries. Installer packages have been created to ease the installation of all required client components. To avoid time consuming installation procedures for on-site evaluations, the server components are prepared as pre-configured virtual machine images for testing. These images will serve as a reference implementation for subsequent full installations at the user hosts.



CoSpaces Collaborative Workspaces

Recent work has focused on enhancing the functionality of the CoSpaces Co-Located, Distributed and Mobile Workspaces, and on ensuring that all workspaces can fully exploit the underlying CoSpaces Software Framework to support the running of secure collaborative sessions. The portal now offers user management, team management and the sharing of various applications through private and public workspace settings. Core application sharing through the Portal currently supports 3D design review, MS Word and MS PowerPoint. The Portal also offers VNC facilities to enable users to share any other types of applications, and an integrated communication panel to support video conferencing and text-based discussions. The CoSpaces Portal now serves as the interface for triggering co-located, distributed and mobile workspaces.



Final prototype testing

The CoSpaces Living Lab, which is run by our technical partners, has been continuously testing all three workspaces against the case studies provided by our industry partners, in preparation for final prototype testing by our industry partners. We are now entering the industry validation phase, and a variety of partners from the Construction (COWI), Aeronautics (SAFRAN) and Automotive (Porsche) sectors are currently preparing and launching full prototype tests in their own ongoing projects.