Design Challenges to Workspace Applications

No other set of tools support the product design activities like those in the CoSpaces Software Framework. With modules that integrate Model-Based Workspaces, Group Management, Knowledge Support, Ambient Interfaces, and Real-Time Conferencing, with underlying platform technology supporting information sharing and security, the CoSpaces Software Framework delivers a comprehensive and more streamlined environment for a wide range of product design, concurrent engineering and maintenance processes involving engineering and production teams from multiple disciplines.

An open framework supporting industry standards

The CoSpaces Software Framework uses methodologies and modelling technologies that allow many types of development tools from different vendors to be utilised. A core set of tools have been validated as a reference solution, but other tools may be substituted because the interfaces and specifications are published and freely available.

The CoSpaces Software Framework is being developed in concert with the standardisation work in the World Wide Web Consortium (W3C), the Object Management Group (OMG), and many other industry leading standards organisations. Your investment will be secure as the evolution of the CoSpaces Software Framework will remain aligned to industry standards.

CoSpaces Collaboration Framework
Today's Engineering Design organisations are under intense pressure. Customers continue to demand greater functionality, production and operational procedures are changing more frequently, and continuous adoption of new materials and innovative production processes has become a necessity to stay ahead of the competition.

If like many other IT Directors you've decided the old paradigms and technologies for innovation in product design no longer let you to keep pace with customer demands and the global needs of your business, then it's time you moved to a new generation of tools for collaborative engineering - the CoSpaces™ Collaboration Framework. It's a unique set of software tools, methodologies and organizational processes that not only make it easier to design complex components, but also links your business procedures, suppliers, and design teams like never before, letting the business truly drive your product designs, and allowing IT systems to quickly react and adapt to changes in requirements for products and components.

The CoSpaces Collaboration Framework delivers real benefits

- Now you can build IT Systems that keep pace with changing business needs because your models for design team collaborations are linked to the system. Changes to the way design teams work are automatically reflected without costly system redesign and reengineering work.
- You'll have quicker delivery of new products and components as customer’s needs are more clearly visualised and changes in requirements are rapidly integrated into revised product designs and production procedures. Model-based collaboration systems allow design teams to tailor the way they work to specific challenges shortening delivery time while also lowering maintenance costs.
- You can incorporate your existing engineering tools and use the vendors you prefer because the tool interfaces and specifications are published and comply with accepted industry standards. All of the underlying methodologies are tool and vendor independent providing you with the greatest flexibility.
- You'll achieve continual increases in productivity because regular use of the CoSpaces Collaboration Framework means more information about your products and processes are available to designers leading to better decision-making and greater understanding by engineering teams of how components interact and support business and customer needs.

Workspaces: A better paradigm for engineering design teams

Workspaces extend well-accepted engineering and design technologies to enable design teams to establish effective partnerships, collaborate, be creative, improve productivity, reduce the length of design cycles and take a holistic approach implementing product phases. Some of the additional capabilities workspaces add to today’s engineering technologies are:

- Support for geographically dispersed engineering teams
- Interactive virtual meeting places for design problem solving
- Visualisation of multi-perspective data sets for multifunctional teams
- Optically tracked multi-user interactions for co-located design review tasks
- Support for a broad range of team working styles and decision making
- Dynamic reconfigurability to address specific design team challenges

Let the business define the system...

The CoSpaces Collaboration Framework provides new collaborative models and technologies that empower workers to better manage joint design initiatives. The highly adaptive model-based platform easily adapts to your unique product and supplier scenarios keeping you competitive in global markets.

Manufacturing and design teams, in cooperation with their suppliers, will be able to configure their own collaborative workspaces utilizing ground-breaking innovations in context-aware interfaces, virtual reality, and human-centric workspaces supporting product scenarios and lifecycles specific to automotive, aerospace and construction.

The CoSpaces Collaboration Framework includes

- State-of-the-art collaboration models to optimise design team performance and decision making
- Workspace applications supporting design teams that are geographically distributed, co-located or onsite using mobile devices
- Model-Link™ technology that enables your business models to determine collaborative workspace configurations
- Dynamic Service Management tools linking simulation services, security services, computational resources and people
- Group Management tools for managing roles, responsibilities, access rights, preferences, context and hardware settings.
- Workspace Repository for storing, sharing and reusing design information, and archiving design decisions
- Collaborative Virtual Reality Framework combining 3D video streams and 3D virtual worlds into a single mixed reality environment
- CoSpaces Portal providing a friendly interface for asynchronous tasks and on-the-fly tailoring of collaborations and meetings
- Guidelines and organisational practices for transitioning engineering teams to higher performance levels

All delivered as a comprehensive toolkit that can be adjusted and adapted to your specific engineering environment, procedures and platform technologies. Extensive online documentation is included.

The next generation of tools for collaborative design teams