CONCURRENT DESIGN & ENGINEERING SERVICES

Connect teams and streamline processes to design the future
Complex design and engineering projects involving multidisciplinary teams can be complicated to organize and manage. Typically, the sequential nature of the work means they are also lengthy, as every stage is dependent on completion of the one before.

Concurrent design and engineering streamlines the entire process, speeding up projects and cutting costs. Additionally, concurrent design provides management with a comprehensive and accurate overview of any complex system or product. The outcomes support decision-making processes and reduce the overall risk of projects from the start.

RHEA Group is a pioneer in the implementation of concurrent design and the development of platforms to support it. Our concurrent design services include setup, training, hands-on support and audits. And our unique, standards-based, open source CDP4® software allows teams to interact and share engineering data in near real time – industry compliant, yet flexible and accessible.

For complex systems, concurrent design can reduce the design time by a factor of four and the cost by a factor of two.
Use our **CONCURRENT DESIGN SERVICES** to unleash your team’s potential:

- Streamline your multidisciplinary team’s communication and decision-making
- Increase productivity - ensure every design session results in concrete decisions
- Reduce changes during later phases to save design time and costs
- Develop new products and services

RHEA Group

*Your trusted source of concurrent design and engineering software and solutions*
Why Invest in RHEA Concurrent Design & Engineering Services?

Concurrent design is a proven, powerful design methodology for the early design phases of multidisciplinary projects.

The concurrent design process:

- Enables a team to work directly with the customer to establish their requirements.
- Makes it easier to identify stakeholders and explicitly involve them.
- Provides a clear audit trail in the design process.
- Allows customer participation and access to the design information in our CDP4® software when used as a supporting tool.

RHEA Group is a pioneer in the design and implementation of concurrent design and engineering. Our approach is based on creative concurrent design sessions in which multidisciplinary teams come together in partnership with the final customer to discuss all aspects of a complex product or system design. These sessions are held in the early design stages, which minimizes changes in later phases, reducing the time and resources required to finalize a project or bring a product to the market.

We also provide our unique Concurrent Design Platform (CDP4®) software that can be used independently by any organization or as part of an overall RHEA concurrent design service. CDP4 is compliant with ECSS-E-TM-10-25A (Annex A and C) and supports the ReqIF file format standard.
The RHEA Group Difference

Optimizing the design and production of complex products is one of RHEA’s major areas of expertise. We have a team who specialize in concurrent design and collaborate closely with the European Space Agency’s (ESA) Concurrent Design Facility. In addition, our CDP4® concurrent design software solution provides multidisciplinary teams with advanced tools to apply the methodology in any facility.

Streamlining complex processes in the maritime industry

RHEA has supported the implementation of concurrent design in the design phase for large luxury motor and sailing yacht construction, including on-site training. The improved team interaction resulted in higher quality design and saved time, with the multidisciplinary design and engineering phases cut from 8 to 5 months.

Supporting ESA’s Concurrent Design Facility

RHEA staff work onsite within ESA’s Concurrent Design Facility (CDF) where they are involved in the execution of CDF studies as well as the maintenance of the facility. RHEA staff collaborate closely with ESA on the development of ‘domain specific’ tool integration based on ECSS-E-TM-10-25 to improve the flow of data and processes in the CDF.
CDP4® – Enabling Collaborative Design

RHEA's CDP4 enables multidisciplinary teams to work together efficiently on complex systems. Check and analyse requirements, carry out all necessary calculations and validate models in real time.

Unleash your team’s potential

Get access to a complete data set at any time and keep track of all the changes made on the model by the different team members.

Use our CDP4 software development toolkit to integrate other tools with the ECSS-E-TM-10-25A (Engineering Design Model Data Exchange) ecosystem without worrying about the intricacies of the standard.

CDP4 web services provide a high-performance REST API (ECSS-E-TM-10-25A Annex C) with full revision history. Find out who made what change and when they made it. Export selected models to an ECSS-E-TM-10-25A Annex C.3 archive to exchange with other organizations.

Choose from two versions of CDP4 to match your organization’s requirements:

- **Enterprise Edition** - Get support from RHEA experts for demanding projects.
- **Community Edition** - Open source offers exceptionally low barrier to entry, with access to the source code and desktop application.
RHEA CDP4® Solutions

CDP4 is available in two versions:

- **CDP4 Enterprise Edition** - for the most demanding concurrent design projects.
- **CDP4 Community Edition** - the next generation of concurrent design platforms, available open source.

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<th>RHEA Group CDP4® features</th>
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*Support services available with Enterprise Edition only; details dependent on service level agreement. Please ask us for more information.
RHEA Group Concurrent Design & Engineering Services

Effective, flexible, comprehensive concurrent design. Streamline your multidisciplinary team's communication and decision-making, and reduce changes in later phases. Ensure better quality outcomes and improve customer satisfaction. For complex systems, concurrent design can reduce design time by a factor of four and cost by a factor of two.

Practical support and expert advice. Our experts will assess your needs and support the implementation of concurrent design methodology in your organization, customizing it to meet your needs. We can also provide leadership and training, giving your team a solid foundation in concurrent design.

CDP4® Enterprise and Community Editions. Explore the full potential of collaborative design with the most advanced concurrent design tool. Design and parametrize a complex system, verify requirements, execute calculations and analysis, and validate models in real time.

Design and engineer faster with leaner processes. Implement concurrent design methodology at your own pace using CDP4, with optional support and advice, training and on-site assistance. If your organization's needs go beyond this, we can tailor a concurrent design implementation to meet your specific requirements.

Contact us to find out more about our Concurrent Design and Engineering solutions and CDP4 software. Visit www.rheagroup.com

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