

CONTROLLAB



Controllab is an engineering company with many years of experience in the high-tech and marine & offshore industry. We have developed unique tools and methods for model based design. We use these tools to build affordable digital twins which are based on real physics and can be used to develop machines and systems. Our 3D representations are very realistic and exciting! If you want to know more, please contact us.

DIGITAL TWINS

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NEXT GENERATION OF ENGINEERING

How can you develop and test complex products first time right? How can you inspect the operation of machines in a user friendly and intuitive way? With the digital twin technology of Controllab: the next generation control engineering!

DIGITAL TWIN

A digital twin is a virtual version of a machine. With 20-sim, developed by Controllab, you can build and run digital twins and see them in 3D on a screen or on a VR headset. Digital twins can be used during product development to show the effects of design changes and assess the operation of the machine. During active use, digital twins can be used to inspect the performance and wear of machines.

VERSATILE

Controllab can help you with the tooling needed for digital twins and with the development of digital twins. A typical project starts with the development of a simulation model in 20-sim. By coupling the model to a 3D visualization, the digital twin comes to life and can be used for product design and development. In a later stage the digital twin can be used to test the control system in development. This is called Hardware-in-the-Loop (HIL) simulation. By adding the user interface, the twin will change into a simulator, which can be used to train operators. By coupling data, coming from real machines in the field, the twin can be used to monitor operation and inspect the condition of the machine.

PRODUCT TO LIFE

Our digital twins will bring your products to life. With our VR and AR technology you are immersed in to a virtual world and see the product working before it is actually built. This will help you to solve problems early on and save you from costly surprises.

CONTACT US

Our digital twins have successfully been used by customers in the High Tech and Maritime industry. They help engineers to test and showcase their ideas and develop their products first time right. Contact us to find out how digital twins can work out for you!

COMPETENCES

Controllab has worked on modelling and simulation, 3D visualization and VR/AR for more than 25 years. We have developed a tool suite that is excellent for developing digital twins and helped our customers to make their digital twins a reality.

MODELLING AND SIMULATION

- 20-sim toolsuite
- Advanced model libraries:
 - Hydraulics
 - Electrical motors & drives
 - Mechanics

3D REALITY

- 3D animation in 20-sim
- Advanced animation in Unity
- Life coupling with simulation model
- VR and AR headsets
- Script based operation

CODE GENERATION AND TESTING

- C-code generation from 20-sim
- Code deployment for PC's, PLC's etc
- HIL simulation toolbox for testing

MONITORING AND INSPECTION

- Coupling with cloud based data storage
- Re-running recorded data sets
- Presentation in 3D AR/VR

