

IT improves safety in offshore industry

Exercises in virtual 3D environments illustrate development

Safety has always been a critical issue in the offshore industry, and now the increased use of IT solutions and software has led to even better conditions than would otherwise have been possible.

Programmes that list employees' competences and their need for further training is only one example, while more advanced systems ensure that critical processes are monitored and make it possible to stop or reduce a process.

By the help of the most recent developments in software for 3D computer simulation and virtual environments, hitherto unseen opportunities now exist for simulating and practising given procedures and situations. This means that any employee can try out all conceivable emergency situations and be prepared for the things he is responsible for.

"There's no doubt that IT solutions have helped increase safety in the offshore industry. When you practise situations and procedures in a virtual environment, no one needs to think about what the weather will be like or about the people who'll have to stop working to take part in the exercise. You can calmly go through all exercises on your computer as many times as you need. This makes employees feel safe and confident, and the company saves money because they can limit the number of real life exercises. So IT really does improve safety in the offshore industry," observes CEO Allan Frikke Hansen from the company Virtual Lab ApS, which is headquartered in Esbjerg.



Many different situations can be trained in a virtual 3D environment. This is a situation from one of Virtual Lab's training programmes.

Virtual Lab ApS is no more than 3 years old and specializes in 3D training programmes. The company is growing rapidly and, earlier this year, it entered into an agreement about cooperation with the company Maersk Training Esbjerg (former Svitzer Safety Services). Together they will deliver a virtual emergency response training programme that makes it possible to train, for instance, firefighting and man overboard situations on a ship or an installation by means of a computer programme.

"Safety is very much about being conscious of who needs to be notified about an incident and about what you should generally do. You can do exercises to learn this until you are confident about

how to react. And you can always refresh the exercises if you think you need to," says Allan Frikke Hansen.

The cooperation between Maersk Training Esbjerg and Virtual Lab ApS is but one example of innovative IT solutions for the offshore industry. Limited Internet access, exchange of confidential electronic documents and efficient document handling in an industry where plant sites and the main part of employees are often located in different places are a few further examples of innovative solutions.

All these innovations will be presented at Offshore Center Danmark's annual event, the IT Offshore Event on September 16 at Esbjerg Folk High School. The event



takes place for the fourth year running and, according to project coordinator Tommy Petersen, improvements in, for instance, safety in the offshore industry is a good example of the great importance that IT and electronics have to the industry:

“If we look back on the 40 years where Denmark has been an oil-producing nation, development has been amazing. IT and advanced electronic equipment have changed the industry and increased productivity and safety. When you look at how rapidly things have developed over the past few years, there’s no reason to think that we’ve seen everything yet. As long as oil and gas can be found in the underground, new software solutions and electronic devices will be developed. And the knowledge that Danish companies are amassing is valuable in terms of expansion in other countries – and when it comes to a fast-growing market in offshore wind turbines,” says Tommy Petersen.

IT Offshore Day 2010 will take place on Thursday September 16, and further information about the event can be found at www.offshorecenter.dk

Training grounds will still be needed for exercises in evacuation from installations such as this one at Maersk Training Esbjerg. But the use of 3D simulation can help personnel familiarize themselves with important procedures in emergency situations.