

RobotStudio™ Case Study: Elan Marine d.o.o



Elan produces sailing boats from 31 feet to 45 feet long. These are quality performance cruisers with high safety.

Elan has been producing boats since 1949. In 1962 Elan started to produce boats from reinforced polyester. At present they make approximately 350 sailing- and power boats annually.

Time to improve quality and working conditions

Gregor Petak works with robot programming at Elans development department. Elan has two paint robots for applying gel-coat at the boat hull. Both robots are programmed in RobotStudio. The coating of the boat hull has a complicated geometry because of its unpredictable shape. Before the implementation of the painting robots last autumn the coating was made manually. Sometimes the coating got too thick and created a lot of bubbles in the surface which

led to big quality problems. “We decided to automate the gel-coating process of the boat hull because we wanted to improve quality and working conditions, and also to make the production process environment-friendly and to increase our capacity”, says Gregor Petak.

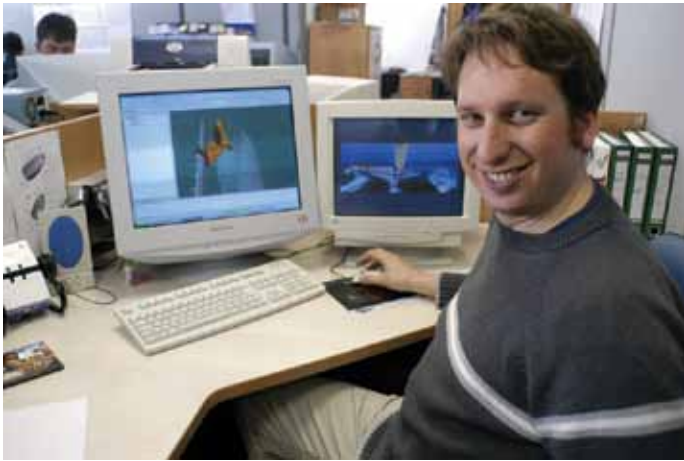
The competition has nothing similar

Elan decided to buy ABB robots due to the product’s reliability, strong local support and their specific requirements for robot programming. “There are no straight lines on the boat body which makes online programming almost impossible because of complicated mathematics”, explains Gregor Petak and continues: “When it comes to software products the competition had nothing similar. With RobotStudio the thickness now can be specified with the about 2000 positions that every boat body needs to get a consequent layer. RobotStudio give more exact positions and a much higher quality on the coating”, assures Gregor Petak.

Elan Marine d.o.o

Programming in piece and quiet

The delivery time for the robot system was two months. RobotStudio was delivered already two weeks after the order. "I started programming with RobotStudio in good time before the robots were delivered. The implementation phase was simple thanks to the fact that RobotStudio is very easy to learn", says Gregor Petak. Elan has developed an efficient working method when programming in RobotStudio. Due to the specific conditions that occur when applying gelcoat, programming without RobotStudio is almost impossible. "The programming would have taken approximately two weeks if we would have done it online. Now we do it within just three days! Just to start up the production would have taken two weeks, but with RobotStudio it takes just half a day to check the program", explains Gregor Petak.



RobotStudio provides a better work environment for Gregor Petak, R&D Engineer.

Better quality for passionate yachtsmen

"The number of defects that occur when spraying gel-coat has been significantly reduced, which has led to improved quality for our boats. Because of the specific nature of our products I cannot imagine programming without RobotStudio", says Gregor Petak. "With Robot Studio we can prevent the mould damage that may occur during the manual programming process. Our clients are passionate yachtsmen and charter companies. They can now benefit from a better quality and an even better performance", concludes Gregor Petak.

The choice fell on RobotStudio

"We have looked at other software for offline programming but they were a bit too large and complex for our area of application. RobotStudio's functions were completely adequate. By using ABB's robots, it is very simple to move the programs between robots and RobotStudio," explains Kent.



There was no other alternative to program the robot than offline.

No alternatives

Elan is continuously working with quality improvement for their high performance sailing boats. Gregor Petak sees a lot of opportunities in the future when it comes to robotic applications at the Elan plant. New projects such as application of fibres and cutting of apertures are taken under consideration. When it comes to programming software there is no alternative. Gregor Petak has programed other robots before but after using RobotStudio he is confident: The best product for robot simulation and programming is RobotStudio.



Gregor Petak in one of the high performance sailing boats.

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