

Press release

## Informasic has developed a wireless embedded system for container handling

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***Together with the company Loxystem, Informasic has developed a new technology for container handling. The wireless embedded solution makes it possible to remotely control twist locks, hence increase the efficiency and safety when loading and off loading containers on ships.***

When containers are transported on ships many of the containers are stacked several storages above the deck surface. To avoid displacement of the loads, or unintentional dropping over board, the containers are secured to each other by the aid of twist locks. Every single lock needs to withstand a minimum of 50 tons tension force, i.e. being extremely solid and robust. The twist locks that are used today need to be opened manually, a both dangerous and inefficient work procedure and where the stevedores need to be able to open locks up to 10-15 meters above the deck surface.

The new patented lock from Loxystem is a twist lock that is placed in each corner of the container. The design makes it possible to remotely control the lock through an embedded system containing an electronic controlled motor and a radio communication module. This way the crane operator is able to open the locks from his ordinary cabin position and also to be assured that the locks have securely been locked when loading. The efficiency and productivity can now be increased and the personal safety can simultaneously be improved.

*- The requirements from Loxystem have been very demanding. At the same time it is very inspiring to work with customers that challenge us to provide new innovative high tech solutions for embedded systems, says Leif Akesson, CEO Informasic.*

Informasic has developed the complete embedded system. The radio communication follows the 802.15.4 standard (2,4 GHz), which has low power consumption and therefore can extend the battery lifetime. The hardware is based on a System on Chip (SoC) solution. A new radio protocol has been developed, since there were no existing protocols available on the market for this type of application. To make the radio communication function well in a container environment a specific antenna solution was developed. The project has also included integration of motor control and sensors. Software and radio communication to a Windows based crane computer have also been developed by Informasic in this project.

*- To work with the specialists at Informasic has been very productive. In these type of pioneering projects you never know in advance what kind of challenges you will face and without Informasic's innovative and flexible attitude we would not have come this far at this time says Dag Tryggö, CEO Loxystem.*