# Each container terminal its own specific automation solution

A ship arrives in the port, loaded to full capacity with containers. Large cranes unload the containers and lift them onto the shore. Immediately after containers have been unloaded, the ship is reloaded with new containers. The ports of Antwerp and Rotterdam handle hundreds of thousands of containers each week. A logistic masterpiece, in which speed, accuracy and safety play a crucial role.

Hutchison Ports ECT Rotterdam (ECT) was the world's first automated terminal. AGV's (Automated Guided Vehicles) have been used in this terminal since the early nineties of the last century. Despite its high degree of automation, ECT is still taking steps in the domain of ICT, for instance for optimizing stowage. The software developed by ICT Group, in collaboration with ECT, controls the process of loading and unloading, as well as the terminal's administrative activities. "When you're loading and unloading containers,

you have to take their stability into account. Too much weight on one side imposes risks. For a terminal process it's extremely important that the number of separate actions is minimized. This means that containers must be stacked as efficiently as possible. The stowage package developed by ICT Group and ECT takes each of these factors into account, while planners can still intervene in the process."

ICT+
smarter solutions
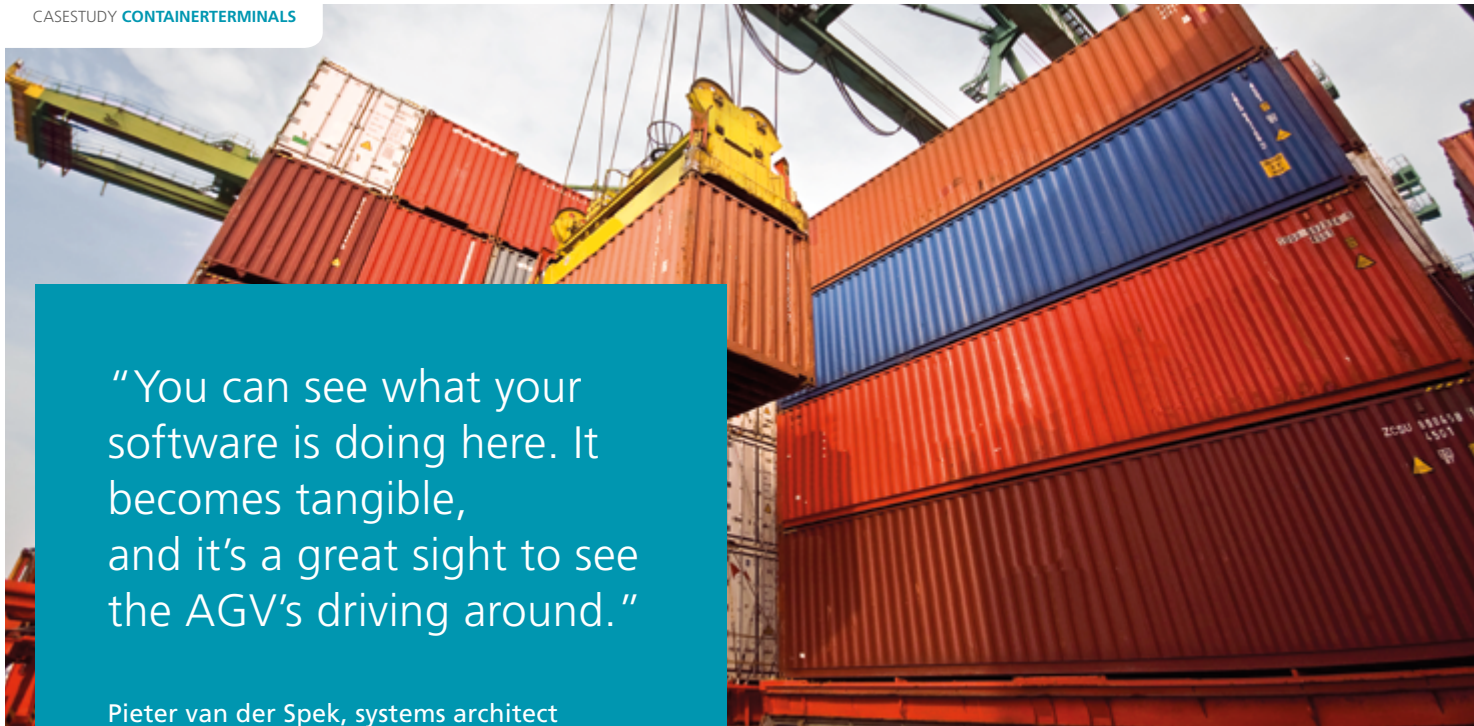
> "You can see what your software is doing here. It becomes tangible, and it's a great sight to see the AGV's driving around."

Pieter van der Spek, systems architect

Man and machine

ICT Group is involved in automating part of the activities of the container terminal in the port of Antwerp. Many activities are still performed manually; vehicles are driven around by drivers, the cranes are manned by crane operators, and office staff perform the customs clearance tasks of incoming and outgoing containers. The lay-out of a manually operated terminal is completely different from that of an automated terminal. In addition, the activities in the port of Antwerp are subject to tidal factors. This also imposes different demands on the staff and the software that's being developed, for instance apps for users, desktop applications, and the configuration of servers, PLCs and web sockets.

No standard solutions

Each container terminal is different, and requires specific, customized solutions. In addition, each terminal uses different techniques and communication protocols. ICT

Group's engineers understand these different worlds, but what's more, they elaborate upon them and make sure they communicate with each other. This is also the case for applications of different suppliers. The engineers know the processes of loading and clearance, and they are constantly in touch with those responsible. The know-how and experience of the people involved is and remains extremely important.

The challenge

At first sight, the activities in a container terminal may look simple, but in actual fact they are complex and challenging. And that's the challenge for ICT Group's engineers. Pascal Muller is involved in a project at ECT as a Software Engineer, and he can fully confirm this. "It's fantastic for everyone to see how comprehensive and interesting the process is. But we enjoy it even more because we know what decisions and complex processes are at work and what a crucial role they play behind the scenes."

For more information about ICT Group's possibilities and solutions for your specific situation, please contact Walter Spitters, Operation Manager Transport & Logistics: walter.spitters@ict.nl.

Contact person
Walter Spitters
Operation Manager
Transport & Logistics
M: +316 2708 7316
E: walter.spitters@ict.nl

Office address:
Kopenhagen 9
2993 LL Barendrecht
Nederland
T: +318 8908 2000
W: www.ict.eu

ICT+
smarter solutions

Kopenhagen 9
2993 LL Barendrecht
The Netherlands

T +31 (0)88 908 2000
F +31 (0)88 908 2500

info@ict.nl
www.ict.nl