# The Benefits Of A Good Memory – And Rugged Performance

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**Which would you trust more to keep track of your company's physical assets: a human's memory, or a computer's?**

- Challenge: Replace a poorly working inventory system that relied solely on driver's memories to keep track of where parts and products were stored.
- Solution: Use a simple barcode scanning system and the Algiz 7 rugged tablet computer to create a real-time wireless inventory tracking system.
- Result: Drivers and managers can pinpoint the location of any piece or product throughout the company's two warehouses, saving both time and cost.

Which would you trust more to keep track of your company's physical assets: a human's memory, or a computer's? When manufacturing company Peikko Finland made the quantum leap from the fallibility of human recall to the precision of Algiz 7 tablet computers, the instant improvement in their inventory control answered the question without a doubt.

Peikko Finland is a privately owned company specializing in composite beams and fastening products for concrete connections. With headquarters in Lahti, Finland, The Peikko Group has sales offices in 30 international countries, with modern production facilities in Europe, Asia, North America and the Middle East. Peikko employs more than 800 workers, with 250 of them in Lahti, where the manufacturing unit is based.

The Lahti facility features two main storage warehouses – a production building for parts used in manufacturing, and another one for finished products. The production facility contains room for more than 800 pallets; the finished-goods warehouse holds 1,500 pallets.

And, incredibly, as recently as early 2010 the current location of every single item in the warehouses was tracked only by the memory of forklift operators. There wasn't even a pen-and-paper system.

"We did not have any system for product location management in our warehouse," says Konsta Laukkanen, a production engineer at Peikko. "Therefore, lots of products were lost, and lots of time was used to search for them."

In 2010 Peikko decided to add an inventory/warehouse management component to

their existing enterprise resource management (ERP) system. And that meant connecting to a different kind of memory – rugged mobile computers that could go wherever the forklifts did.

After studying models from a number of different manufacturers, Peikko settled on the Algiz 7, a lightweight but high-performance tablet computer that thrives in challenging work environments. The Algiz 7 features an Intel Atom 1.6 GHz processor with a 64 GB solid state hard drive and 2 GB of DDR2 RAM. It comes standard with Bluetooth, WLAN and GPS as well as a built-in 2-megapixel camera with LED light.

Just as important for Peikko's needs, the Algiz 7 has barcode-scanning capability, and it's rated IP65 and meets stringent MIL-STD-810G military standards for withstanding humidity, vibration, drops and extreme temperatures.

"The Algiz 7's advantage was its competitive price-performance ratio and compact size," Konsta says. "In addition, it was compatible with the additional equipment we needed to use."

Once they had acquired the proper equipment, the Peikko team set up their new system, attaching each Algiz 7 to an advanced vehicle cradle (available as an option with the Algiz 7) that has charging capability from 12 to 36 volts, two USB ports, two RS-232 ports and a 10 MB Ethernet outlet.

Each forklift is also outfitted with a barcode reader that's connected to the Algiz 7 via the vehicle cradle. Every time drivers move an item into or out of a warehouse, they simply scan a barcode on the item to establish product and storage location information. The Algiz 7 maintains real-time, wireless contact with the central ERP system over a company WLAN – a streamlined process that improves efficiency and makes it easy to find an item when it's time to use it or ship it.

It all sounds easy, but of course a forklift rumbling around a warehouse is not the ideal place for highly sensitive electronic equipment. That's where the Algiz 7's extreme ruggedness proves its worth.

"Our production facilities really test the devices," Konsta explains. "For example, due to the welding and grinding we do, the facilities are quite dusty. And being on mobile forklifts, the portable computers are constantly exposed to mechanical vibration. The Algiz 7 has responded to these demands – the devices have held up very well."

While the Algiz 7's ruggedness is certainly a critical part of its performance, it's the improvement in Peikko's inventory tracking that is the real testament to its capability.

"In our new system, the product location information is available and truck drivers can use their time more efficiently and support the production process much better," Konsta says. "By using the Algiz 7, the forklift drivers have real-time access

to the system anytime, anywhere on our site. They can upgrade the information to the system in real time."

And what do the drivers themselves think of the changes?

"The new system has made our work much easier," says Marko Uuskoski, a Peikko forklift driver. "Nowadays we don't have to spend our time searching for goods from our storage; instead we can check the system to find those, because our tablet computers have enabled real-time pallet tracking via the ERP system. This has significantly improved our ability to serve the production department efficiently and maintain our warehouse operations. After few struggles at the beginning our tablet computers have been working well and enabled real-time pallet tracking via the ERP-system."

The new system of using barcode scanning and the Algiz 7 is a nearly immeasurable improvement over the way things were. For the forklift drivers – and the entire company – the old system is just a memory now.

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