



MGPS provides technology intelligence and information system development to INTRAMAR and EUROFOS – two freight handling companies that work on the Ports of Marseilles and Fos sur Mer managed by the Porte Autonome de Marseille (PAM). Major plans to extend the container capacities of the port facilities were underway, and INTRAMAR and EUROFOS required a solution that would measure up.

“Not only do I believe that this innovative remote-monitoring system will allow our facilities to conform to international security standards, it will also improve our logistics process. Now, if a carrier is handled without any instruction being given, we could automatically start filming the event, either with one camera or the entire network as required, using its GPS coordinates,” – Christian Taormina, Organization and Information Systems Manager of MGM (INTRAMAR and EUROFOS) and Managing Director of MGPS

The Challenge

The two freight handling companies required a solution to increase wharf throughput, while decreasing human error and avoiding idle straddle carriers. Real-time container traceability, operational reliability, security in compliance with the International Ship and Port Facility Security Code (ISPS) and better on-board straddle carrier intelligence were necessities.

The Solution

MGPS partnered with Psion Teklogix to implement a solution comprised of Narrowband, Broadband, and Differential GPS (DGPS) technologies. Psion Teklogix rugged vehicle mount computers were mounted to straddle carriers and communicate with the central management system via Narrowband technology. With all containers identified and visible on the computer screen, operators are able to access real-time information on paths and positions in relation to the target containers.

Broadband technology (802.11b/g) was also implemented to provide increased computing capacities and security capabilities via a network of stationary and

vehicle mount cameras compatible with ISPS.

The Benefits

Improved container tracking, identification and slot identification have resulted from the solution. Straddle carrier operators can access real-time location and tracking information and the increase in computing capacity enables greater on-board autonomy, which reduces downtime and human error.

Christian Taormina, Organization and Information Systems Manager of MGM (INTRAMAR and EUROFOS) and Managing Director of MGPS, explains the choice of 802.11b/g was substantiated by “the added power and the possibility of considerably increasing the operating and decision-making autonomy on board each straddle-carrier. Once we had reached the first milestone of identifying and reliably checking the locations and travel of containers on the wharf, fitting an industrial PC onto each vehicle provided new computing power and improved ergonomics. As a result, we were able to implement new applications:

- identifying and checking the identity of the straddle-carrier driver,

- improving calculations to obtain accurate geographical positions on a permanent basis, particularly if DGPS resources decreased when working beneath the gantry cranes, and
- providing the field operator with decision support in complicated situations, when a single target container is located in a stack of other containers for instance.”

The new system also achieves greater reliability and security. “Not only do I believe that this innovative remote-monitoring system will allow our facilities to conform to international security standards, it will also improve our logistics process. Now, if a carrier is handled without any instruction being given, we could automatically start filming the event, either with one camera or the entire network as required, using its GPS coordinates,” says Taormina.

MGPS hopes to augment its system in the future with the application of RFID for receipt and delivery. RFID scanners would be used in the consignment receipt area to read and automatically identify container seal numbers which are currently captured by hand.



“Not only do I believe that this innovative remote-monitoring system will allow our facilities to conform to international security standards, it will also improve our logistics process. Now, if a carrier is handled without any instruction being given, we could automatically start filming the event, either with one camera or the entire network as required, using its GPS coordinates,” – Christian Taormina, Organization and Information Systems Manager of MGM (INTRAMAR and EUROFOS) and Managing Director of MGPS