Valparaiso's South Pacific Terminal *Gears Up* with Leading Edge Technology.

CASE STUDY

Terminal Pacifico Sur (TPS) Valparaiso was established in 1999 as the operating company for Terminal 1 at Valparaiso. Customers include the Eurosal Service (P&O Nedlloyd, Hamburg Süd, Hapag Lloyd Container Line, CSAV, CMA/CGM), Lauritzen Cool and Evergreen among others. TPS Valparaiso is the first Chilean terminal to obtain environmental certification according to ISO 14.001, as well as certification under OSHA 18.000 (Health and Safety Standards).

TPS Valparaiso has 16 hectares of available space, 13 of 16 hectares are dedicated exclusively to container stacking, thus providing storage space for up to 10,000 TEUs simultaneously. Five vessels can be handled simultaneously at five berths with a quayside front of 985 meters and a maximum draft of 11.4 meters. Terminal equipment includes two Kocks gantry cranes, a Gottwald mobile crane, a ever-luffing rail mounted crane, reach stackers and forklifts. From 1999 to 2003 throughput has steadily increased from 220,000 TEU to 290,000 TEU. Needless to say, the high-traffic terminal requires leading-edge technology to keep operations running smoothly.

The Solution

To insure that the port runs at peak efficiencies, TPS Valparaiso chose the Container Terminal Information System (CTIS) provided by HPC Hamburg Port Consulting and rugged wireless data collection hardware from LXE Inc.

HPC first identified the locally required specifications of the terminal processes prior to the installation of CTIS. Afterwards, the system's architecture was defined based on an approved data model covering the complete range of container terminal processes.
The system optimizes gate in/out, yard planning and operations, job control, CFS, rail control, reefer monitoring, stock control and ship/shore. Other features include a management information system and the integration of the ship stowage planning system - STOWMAN.

LXE's high speed spread spectrum technology, MX1 and MX5 handheld computers, and VX1 vehicle-mount computers are currently being used for all operations including loading, unloading, shipyard and gate control. There are also plans to use them in the non-container cargo area. Hardware and network service and support are provided by AISL, LXE's partner in Chile.

The Results

TPS's IT projects' coordinator is Fernando Escobar and the IT manager is Manuel Pérez. According to Escobar, "The wireless network and wireless computers have enabled us to operate our system properly every day, and that is the basis of our business. LXE products have allowed us to streamline our operations' processes in real time as well as set up multi-function points." In addition, the system has significantly improved the flow of information between TPS Valparaiso and customers.

CTIS Import Check Monitor, a software module from CTIS, allows the user to import, merge and process box-related data automatically from different sources due to defined and set parameters (e.g. weight deviations). As a result, time absorbing manual checking by staff is being minimized, 95% of data at TPS Valparaiso is being processed automatically. TPS Valparaiso plans to extend CTIS with the COS (Cargo Operation System) module in the near future.
Both Escobar and Pérez describe the MX5 as versatile and reliable with excellent graphics. "Shifts last 7.5 hours and the MX5's batteries last 8 hours. Since we don't have to stop operations to get batteries, fewer mistakes are made," says Escobar, "and the workers make the best use of their time and are assured of being able to do their job without interruptions. For sure, this makes work much more efficient."

According to Manuel Pérez, "The MX5s increased user mobility which strengthens user belief in the handhelds. This means getting data in real-time, not only for the port but also for our customers, enabling us to enhance our customer's business chain. With these

LXE®

handhelds, we have significantly improved the quality of our service."

According to Escobar, "AISL's service and support, using latest generation technology tools and customer-driven focus, has been very satisfactory. I feel they care about us. For example, if a need comes up, we get an answer within 24 hours. The intention here, clearly, is to support the customer in achieving return on investment."

The software in combination with LXE's wreless mobile computers improve the supervision, planning and control of the throughput in the terminal allowing the management of TPS Valparaiso to make more effective strategic decisions, acquire new customers, and support the future expansion of the terminal.