C3.

Master Terminal™ enables C3 to record and track over 30 million logs per year

The challenge

Marshaling high volumes of export logs through 15 ports across New Zealand and Australia, C3 required an integrated and online system running in real time.

The solution

Master Terminal, Jade Logistics' terminal operating system (TOS), provides the ability to handle the throughput of a number of large cargo terminals in a single, low-cost, distributed solution over the Internet. The log marshaling module provides the rich functionality of a fully fledged container and general cargo TOS for moving and tracking logs. Beyond logs, C3 is expanding the use of Master Terminal into other cargo types and environments, such as warehouses.

The benefits

Master Terminal is an integrated, online solution that links all of the log export ports into one overarching system. C3 manages over 30 million logs per year and since installation in 2002, Master Terminal has recorded and tracked every log, every step of the way.

Log logistics

Exporting forest products out of New Zealand involves many processes and stakeholders. Companies responsible for log logistics need to manage these processes as efficiently as possible so they can maximize throughput (unloading and loading), capture all relevant data (transport, ownership, quality, financial) and minimize any delays, downtime or costs, thereby maximizing their profits. Aside from processing huge volumes of logs, log export companies increasingly have to track each log individually to provide an auditable chain of custody in support of forest stewardship and certifiable timber requirements. No modern technology system existed to provide this type of inventory and audit management.

A single integrated solution

As New Zealand's leading provider of product handling solutions on the wharf and beyond, C3 were looking for a single integrated system that could manage their logistics operations. Master Terminal's ability to manage general cargo, break

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bulk, bulk, Roll-On/Roll-Off (RORO) cargo, motor vehicles, containers and logs from one system was key to its selection.

Whether providing a single port service or a fully integrated cargo handling solution, Master Terminal has been pivotal to C3's diverse offering which includes consolidation, devanning and packing containers, storage, warehousing, distribution, marshaling, inter-wharf cargo transfers, stevedoring, bulk import transportation and inventory management of containerized, bulk and break bulk cargoes.

One of the strengths of Master Terminal that attracted C3 is its ability to manage multiple terminals in different locations in a single system, giving the port real-time views and a powerful consistent management tool to drive operations. Master Terminal optimizes the flow of cargo from ship, gate, and rail to yard and back again, capturing every chargeable task and automatically feeding these details into the integrated invoicing module. This crucial information provides users of the TOS with thorough and critical details on every item that passes through a port. This is essential to C3 who handle customer-specific shipping requirements and provide tailored information to each customer.

From point of origin to the port

Master Terminal has been designed to enable customers and key stakeholders of C3 to follow the progress of their logs, from initial contact until they leave the port. Where appropriate, customers have remote access to update data directly and generate their own reports as required.

Master Terminal treats logs as an individual cargo type with their own defined rules and characteristics, managing them within the TOS in much the same manner as containerized or general cargo. Master Terminal tracks each log from its point of origin in the forest to their arrival at the port, where they are individually bar-coded, measured, graded, and stacked before being loaded on log ships for export. Each log has a full history including where it came from, who carted it,
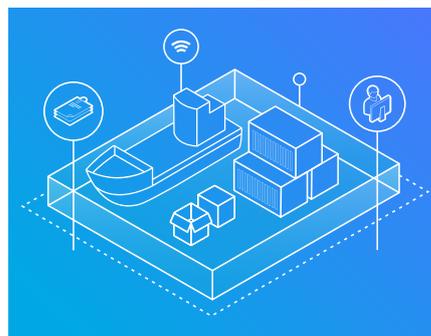
its dimensions, grade, and weight. Logs are scanned using a handheld device when they enter the port prior to being unloaded from the truck. Master Terminal manages all activities performed on the logs; for example, grading, regrading, rejecting, disassembly, storage in lots, and internal moves and audits.

One of the challenges with log storage is that log widths can vary along with their size and characteristics. Master Terminal provides the ability to dynamically resize and gap manage storage areas visually, allowing optimal use of the log stowage areas. All logs are individually scaled to the Japanese Agricultural Standard (JAS) as they arrive at the terminal; this is a volumetric measurement process that is used to derive the under-bark log volume based on the length and diameter of a log. Determining the JAS also involves interpreting defects in the log face and making measurements based on strict criteria.

Master Terminal at C3

Considering the large volumes of logs that Master Terminal has to contend with, the support overhead is minimal. Large log volumes can create very large databases which users of the TOS need to be able to search efficiently in order to create reports. An important component of Master Terminal is its ability to quickly produce reports detailing stock movements of hundreds of different log species, grades, characteristics and sizes, which are automatically dispatched to clients around the world.

System reliability and performance is critical for front line workers based in remote locations operating 24/7. This reliability requirement is met by maintaining core application functionality in a central location, allowing for ease of management and maintenance. Clients connecting to Master Terminal do so across the Internet with the specially designed thin client software reducing data traffic to an absolute minimum. Master Terminal also offers web services that can be accessed by smart phones, scanners, and tablets as well as traditional PC architecture.

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About Master Terminal from Jade Logistics Group

Designed to handle all cargo types in one integrated system, Master Terminal is the world's leading terminal operating system (TOS) for mixed cargo ports.

Master Terminal is licensed at over 120 terminals worldwide, from vehicle terminals in Italy to steel terminals in North America.

Implementation is the key to success, and our implementation record is second to none in the industry. Our proven and robust methodology, partnership approach, thorough training and unrivaled implementation timeframes deliver tangible results fast.

Jade Logistics has been designing, building, and supporting innovative logistics software since 1993. Our experienced people understand the global logistics industry and are the foundation on which we build long-term relationships with our customers.

We have offices in New Zealand, Australia, USA, the Netherlands, the United Arab Emirates, and Indonesia.

For more information, visit us at **jadelogistics.com**

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