

# JVV Logistics Transforms High Value Maritime Shipping Operations with Mobile Solution

Integrating TracerPlus Mobile Data Collection Software with Wireless Connectivity and the Motorola MC75 Enterprise Digital Assistant



“With the ability to manage a live data feed, we can not only track the amount of cargo in a hold, but the position and condition of that cargo, helping us narrow down that margin of error. We can now prepare automatically generated stowage plans in time to deliver before the vessel sails, giving us a tremendous boost in efficiency and time/cost savings.”

*Mathew Ridyard-Commerical Manager, JVV*

## Company Overview

JVV Logistics is a shipping logistics company focused on providing expertise in the areas of shipping operations, port services, import/export and logistical engineering. Among other activities, JVV Logistics administers maritime transportation for the export of steel coils from one port in Mexico to destinations in Central and South America. They are therefore responsible for the cargo as it is being loaded until it is discharged in its destination.

## The Challenge: Overcoming the Logistical Obstacles and Reducing Liability.

This high value cargo ranges from 4 to 25 tons in weight and from 3 to 7 feet in height. In order to properly handle stowage, a number of separate groups including the steel producer, customs, the vessel's personnel, and the client must be managed. It is JVV's job to spot errors and fix problems before they escalate into expensive and potentially prosecutable offenses.

Mathew Ridyard of JVV explains, “You need to know the exact quantity of coils on board along with their serial numbers, to be able to confirm what is being manifested to customs. Any mistakes can be grave. Coils additional to those manifested in customs documentation that are discharged at destination will be considered contraband. It is not uncommon for the steel producer to send coils with the correct serial number but the wrong destination marked on it. Alternatively, a coil may be sent to you in error and you have to quickly recognize that the coil's serial number is not on the packing list.”



“In addition, the client can call you at any moment to tell you that a certain coil has been delivered in error, and needs to be returned to the warehouse. If you cannot locate it, the only option available is to unload the vessel until you find it, the expense of which is potentially phenomenal.

It has been known for a vessel to be delayed up to 15 days if the cargo supervisors have lost track of the coils loaded. Such delays can cost around \$50,000 USD a day in ship rental, dock rental and loading/unloading costs.”

“Lastly, when the end client receives their cargo, and some coil damage is identified, the responsibility for that damage is assigned. We needed a way to accurately track the condition of the cargo while in our custody.”



JVV Logistics decided to look for a solution where they could effectively record not just the amount of coils in a hold, but the position of those coils - which would help them narrow down any margins of error, and allow them to locate coils quickly.

### Specific Goals

- Ability to automatically generate stowage plan documentation in time to deliver before the vessel leaves port.
- Ability to provide key personnel and client’s access to live reporting of loading status.
- Ability to have a wireless component that can work without needing set-up time whenever a new ship comes to port.
- Ability to have an easily traceable photo of each loaded coil, its conditions, and its ticket.

## The Solution: Customized TracerPlus Software and the Rugged Motorola MC75

After evaluating a number of mobile devices, JVV chose the Motorola MC75 Enterprise Digital Assistant (EDA). “The first step was to find the right equipment for the job, robust enough to work in heavy conditions, and with highly flexible networking options. The Motorola MC75 stood out on every front as the perfect scanner, robust and conveniently sized, with all the mobile network connectivity we needed. Whether we decided to connect via 3G or via a wireless network, the MC75 could cope,” said Matt.

With the choice of the MC75, software designed for the Windows Mobile operating system became the next requirement. “A supplier offered a custom-built solution, but at an astronomical price. We could buy 15 MC75s for the price. In addition, we constantly need to change how we are working with the data, based on real tests, differing conditions and variables. Simply providing an initial customization period during development would prove to be not only prohibitively expensive, but also fall short of our requirements. We needed something that could give us control of the customization process and allow for changes on site and at the time we needed,” said Matt. “Then we found PTS TracerPlus, a mobile data solution which is fully configurative and can adapt as our ideas develop, as well as providing support for different connectivity models. When we purchased the MC75s and started working with TracerPlus, we had three weeks to be ready for our first vessel.”

With time for deployment of the solution being a major contributing factor, JVV decided to roll out the solution in stages, separating out the wireless component for later implementation. “Given the time restraints and our objective of being able to produce an automatically generated stowage plan, I decided that we would employ the simplest connectivity model and aim to produce a document in Excel, which is the standard format for delivering the documentation,” said Matt.



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“We were easily able to create the form using the TracerPlus [Desktop] designer, and gather the data using TracerPlus on the MC75. We used 3G to connect to the internet, and FTP software to send data from the scanners inside the holds of the vessel to secure remote server space. At the end of the operation we were able to deliver a full stowage plan and indexed list of the coil’s serial numbers with linked photos to the captain.” Following the successful implementation of the initial stages of the solution, the focus turned to improving the system by adding a wireless component for real-time reporting.



With the current system, data could only be exported at the end of each shift. During this 8 hour period, it was found an error margin of roughly 6 percent, whether it be an operative missing the scan of a coil or having the coil moved after they have scanned it. “It is critical that errors are corrected as soon as they are identified and that the error is removed from all records, both local and remote. The ability to respond very quickly to a situation which requires you to be able to locate a single coil at the moment the situation arises can prevent very costly problems.”

“To achieve a live data feed, we would need to have direct communication between our local servers and our scanner deep inside the holds, and then we would synchronize the data with our remote servers that could be consulted easily for live info. We used the optional TracerPlus Wireless Server package, which links to a common ODBC data source, we used Access. With a 3G hub and signal booster, the connectivity to the ship’s hold was pretty good, but in certain

points in the hold we could lose signal. TracerPlus has an online and offline mode, so it keeps saving the data even when you disconnect, transferring the data once connection is restored. Using SQLYOG, I was able to transfer the data at 60 second intervals to a remote server, straight into MySQL database.”

### The Result: TracerPlus and the MC75 Provide Real-Time Efficiency and Accuracy

“The final result was the ability to share live data via a series of 4 e-mail reports. A Cargo Status report showing the ongoing operation, a full stowage plan report with color-coding to distinguish different clients, and a note showing the destination of each coil, an error report showing the instance and location of duplicated coils and a serial number report tracking the location, condition and time of loading with attached photos of each individual coil,” said Matt. “The improvement was obvious even after our first non-wireless deployment, but once we were able to manage the process in real-time, our ability to prevent errors from becoming costly mistakes and provide fast and accurate information to those who need it proved to be a monumental time and cost saving solution.”



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