



A Rockwell Automation Company

Schlumberger Industries Inc. Datamate 2100 Ticket Printing with Database

The Client:

Schlumberger Industries Inc. manufactures an M-Dot, 2100 series Datamate mass flow meter system that is very flexible in the applications that it can cover. Schlumberger has been a leader in custody transfer of

fluids for more than 100 years. Hinz is the authorized systems developer for Schlumberger Industries Inc.

The Requirement:

The mass flow metering system that Schlumberger manufactures comes as two sub-assemblies: the transducer, which is the element that fits in the piping, and the electronics, which is the Datamate 2100 interface. The Datamate 2100 is a small enclosure housing a keypad and LCD panel. Through this device the operator may start or stop deliveries and access information about the delivery of the product.

The client required system access and delivery automation of a propane truck load-out facility. The facility consisted of three loading racks and three Datamate 2100 units. Delivery security for loading of trucks required user access, valid insurance and approved loading quantities. Reporting, in the form of a Bill of Lading for the delivery and terminal through performance reports was also a necessary requirement.

The mass flow metering system was not required to print a hardcopy report of a delivery or retain any information passed the current delivery. A way for the system to print a delivery ticket which combined information the customer had in a database and storing the delivery transaction for reporting and accounting purposes was required.

The system needed to produce a ticket for the delivery which contained information such as mass, or volume totals, temperature and density. Additional information printed on a ticket should come from the customers' maintained database which stored copies of all of the deliveries made for reporting and accounting purposes. An interface for facility operators and system users was to be provided for accessing the system.

The Design Solution:

Hinz developed a complete reporting and management application for the Schlumberger mass flow metering system that utilizes the RS422 communications capabilities of the Datamate 2100. A total system solution, both hardware and software, was available for full featured ticket printing from the metering system. This product contained a database of delivery transactions and customer information that could be used for detailed reporting. Additionally, the database can contain information about carriers, shippers, truck and driver, and facility information. This information is used for ticket printing, validation of deliveries, and terminal reporting.

The system users (truck drivers) access the system through a simple two line LCD display, entering data

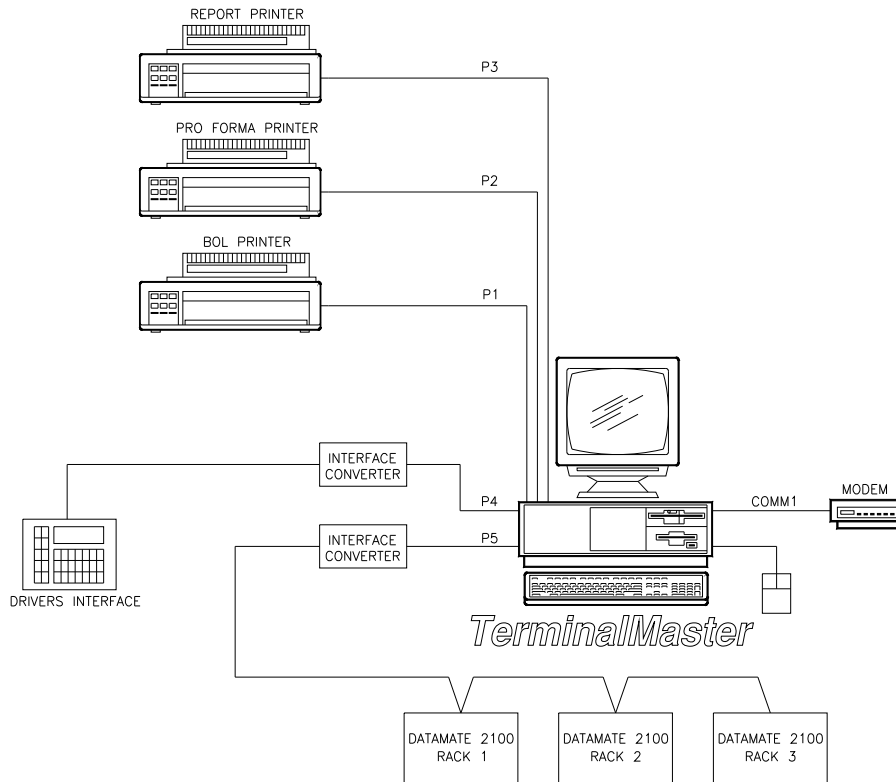
through a numeric keypad. Personal identification is required along with information about the truck and trailer, P.O. number, customer, destination and batch amount. All information is validated against rules that are customer-supplied for the system. When delivery is complete the bill of lading is produced and the information is recorded in the database.

The terminal operator accesses the system through the personal computer containing the database. This system is windows-oriented and uses the mouse for navigation, the same as most Microsoft Windows applications. Maintaining the database, and printing reports is easily done through this interface. Reports include loading rack throughput, transaction listings and information like drivers, carriers, customers etc.



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System Specifications:

This system is shipped as a complete package:

- Personal Computer
- Printer
- Software
- Installation only involves entry of the Database, Configuration of the Datamate and Communications wiring.

For further information or to contact a Hinz office near you, please check our website at:

www.hinz.com