

# **Arrow Trucking Tulsa, Oklahoma**

## ***North American Excellence Awards: Imaging, Finalist***

### **Executive Summary**

By the year 2004, the U.S. Freight transportation industry will carry 11.6 billion tons of freight, generating \$574 billion in revenue, according to a study commissioned by the American Trucking Association. This revenue forecast represents a 24 percent increase over 1994 revenue of \$463 billion.

The Transportation Industry is a profitable and growing business. But as with all growth, there is pain. The pain that carriers feel can be summed up in two words: "Delivery Receipt." The delivery receipt starts a paper trail that has become almost uncontrollable in the transportation/shipping industry. Shippers today are demanding, and getting, a copy of the signed receipt when they get the invoice from the carrier. Or they won't pay the invoice. No proof—no payment.

Unfortunately pulling, copying and refiling the receipt is labor intensive and costly. Carriers cannot hire more clerks; the overhead drives up costs. And that is where imaging has stepped in to give relief to Arrow Trucking of Tulsa, Oklahoma.

### ***The Solution***

The Lanier solution is called CABS, or Centralized Automated Billing System. The process is simple yet effective. Arrow receives all shipping documents at the home office. These documents are scanned into Lanier's ONLINE system using a Bell & Howell rotary scanner. Clerks who assign document types to each page then index each load; delivery receipts, shipping orders, bills of lading, etc.

Billing clerks then verify the accuracy of these documents against the invoice. Once everything is accurate and all charges applied, it is ready to bill. If no documentation needs to go with the invoice, it is billed. If attachments, or copies of items to be printed with the invoice, are needed, Lanier's ONLINE system takes charge.

Through the use of Dynamic Data Exchange (DDE) with the host computer and Lanier's InterAct processor software, a special code for each shipper tells ONLINE which documents are needed. So if a particular customer wants two copies of the invoice, a delivery receipt, and a shipping order, the system pulls the invoice from the host down through the Lanier ONLINE system using COLD (Computer Output to Laser Disk) and prints the needed documents on the network printer. So each invoice is printed with the delivery receipt and delivered to the printers collated and ready to mail, saving hours and getting the bill out sooner.

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"Frankly, there were two main motivations to move to imaging," says Don Battle, Vice President of Information Systems at Arrow. "One, to gain efficiency out of the process. The majority of our customers require copies of the load paperwork attached to the freight bill, and we had to find an efficient way to accommodate that problem. Two, we did it to improve service to our customers. We want to be able to bill the load correctly the first time, and if the customer has questions about that bill, we want to be able to answer those questions while they are on the phone."

Technology is not new to Arrow. Arrow is a leader in using and developing systems that make the delivery process efficient and profitable. For example, they can communicate with every driver anywhere in the United States using a satellite computer system in the cab of every truck.

The Qualcomm Global Positioning Satellite (GPS) system sends a signal every minute showing the location of every one of their trucks. They can also look at a computer screen in Tulsa and see the truck and the actual street location on a map. Lanier's ONLINE system takes advantage of this technology to signal the imaging system that a load is delivered and ready to bill.

"Qualcomm gives us the ability to route documents to the Lanier system automatically because the identifiers are already there," says Don Battle. Imaging is the best kept non secret in the transportation industry.

"We all need it," says Burt Kline owner of Atlanta Motor Lines, a \$50 million LTL (Less Than Truck Load) carrier. "But this integration is nothing you lay at the feet of anybody but a major player like Lanier." Lanier's success in Transportation has not fallen on deaf ears.

"Recognizing this industry and its potential has been a focus for us at Lanier for the past two years, and we will increase our presence and offerings in transportation," says Don Savoie, Document Systems Field Marketing Director at Lanier Worldwide.

### ***Application Overview***

When a shipper calls Arrow they get a cost for shipping their particular freight. Since there can be additional costs that occur after the shipment is picked up and delivered (toll charges, special handling, etc.), the carrier cannot bill until these charges are added to the original quoted charge. These trucks are often hundreds of miles from the home office, so the driver mails the "trip package" or envelope containing all the extra charges along with his expenses.

When the trip envelope is received, all the documents are scanned into the ONLINE system and each document is assigned a document type. When all the document types necessary for billing are scanned, the status of that account is changed to "ready for billing."

Billing clerks check the accuracy of the information at the Billing terminal of the ONLINE system, and release the "load" for invoicing. Pre-assigned codes that determine which support documents need to be sent with the

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invoice (bill of lading, delivery receipt, delivery statement, in any combination) are coded in the Host computer (Unisys A11) and are automatically processed by Lanier's InterAct. The invoice is printed on blank Arrow invoice stock loaded in tray one of a HP IIIsi printer. Tray two holds blank paper for the required support documents. Both are compiled together as one document stack; these are picked up and mailed.

This Centralized Automated Billing (CABS) process eliminates costly billing errors, and drastically reduces the laborious and lengthy process of manually matching the invoices with support documents—a process that requires pulling files, matching documents and making trips to a copy machine.

### ***Items of interest***

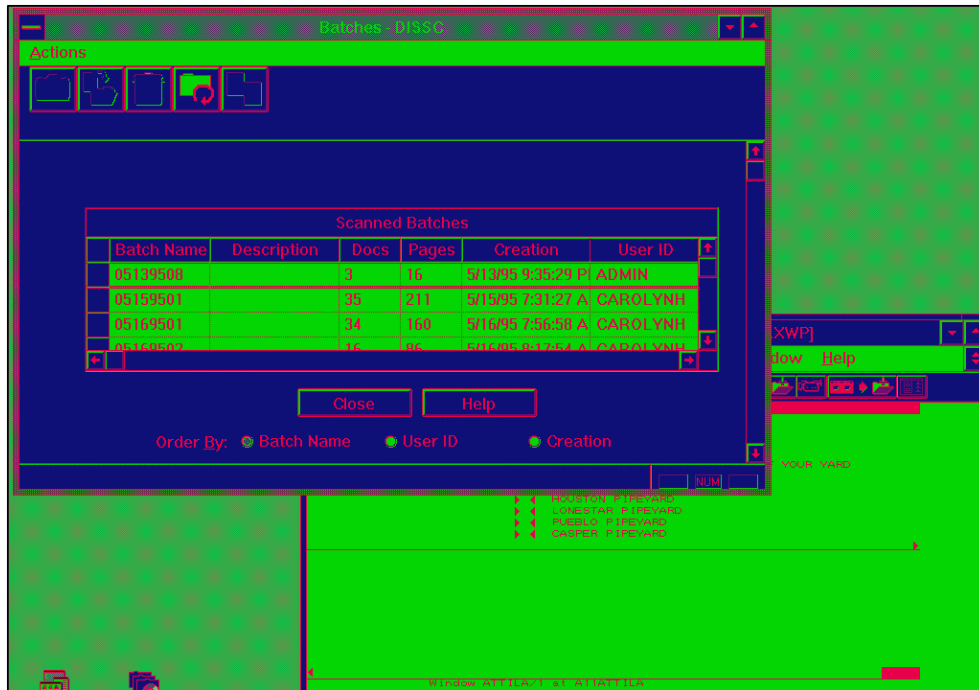
6,000 invoices are sent each month. There are twelve people in the traffic department, which handle rates and three billing clerks. Arrow uses Qualcomm, a satellite system that gives them the location and status of all trucks with automatic signals coming from this computer-type device every minute. This information is displayed on PCs throughout corporation giving dispatchers instantaneous information on the status of a delivery, pickup, or an out of service truck. Qualcomm is also a great communication and safety device allowing the drivers 24-hour contact and information on their location.

Application:	CABS (Centralized Automated Billing System) with attachments
Type of carrier:	Flatbed and Specialized Carrier, and Van Division. TL, Truck Load carrier, long haul.
Equipment:	550 company-owned power units, 300 long-term lease operators, 1,000 forty-five foot flatbeds, 200 forty-eight foot flatbeds.
Terminals:	Dallas, Lone Star, and Odessa, Texas; Fontana, California; Wheatland, Pennsylvania; Ontario, Canada.
Annual Revenue:	Approximately \$100 million.
System components:	10 user IMS ONLINE and IMS 2080 System.
	Three network printers (one HP4 and two HPIII si dual tray printers, one for invoice blanks and one for support documents).
	Three walk up terminals: A/P, Sales, and the Traffic Department.
	One 2137 Bell & Howell CopiScan II scanner,
	Cache Server, 32 MB, EISA motherboard, 4.2 GB Drive,
	20 user GUPTA, 88 platter 2-drive Auto Server,
	IMS 2080 COLD and an InterAct Server.

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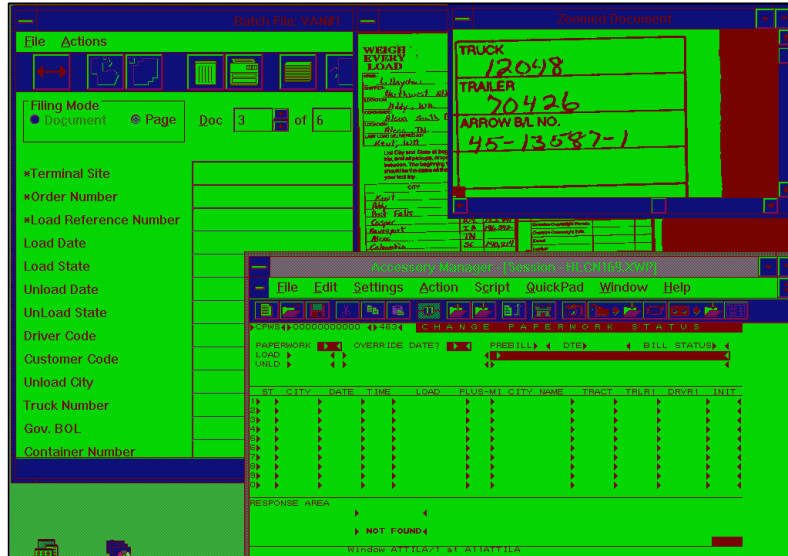
## Flowchart

File folders are created in the Lanier ONLINE imaging system using Lanier InterAct preprocessor software.

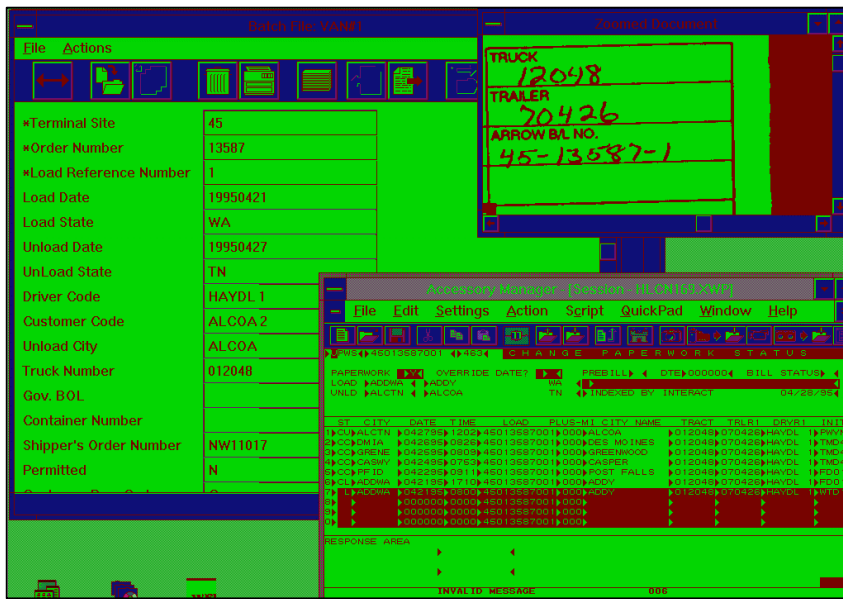


Trip envelopes (documents) arrive via mail and are scanned into the appropriate folder.

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The folder field (packet Status) is updated on the host and the Lanier imaging system to reflect the receipt of the documents.



A report is generated to display or print a list of loads that are ready to be billed.

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The screenshot displays the Arrow Trucking software interface. The main window shows a shipping order with the following details:

- Shipper's Order Number:** NW11017
- Load Reference Number:** 1
- Load Date:** 19950421
- Load State:** WA
- Unload Date:** 19950427
- Unload State:** TN
- Driver Code:** HAYDL 1
- Customer Code:** ALCOA 2
- Unload City:** ALCOA
- Truck Number:** 012048
- Gov. BOL:**
- Container Number:**
- Permitted:** N
- Customer Req. Code:** C
- Packet Status:** W
- Doc. Type:**

The shipping order also includes a section for "This Shipping Order" with a date of MAY 18 1995 and a FROM field containing "ALCOA".

An "Accessory Manager" window is overlaid on the main interface, showing a table of accessories:

ST	CITY	DATE	TIME	LOAD	PLUS-MI	CITY	NAME	TRACT	TRLR	DRVR	INIT
AL	ALCTN	042785	1202	4501358700	1000	ALCOA		012048	070428	HAYDL	1
CO	ORND	042808	0809	4501358700	1000	MO. INC.		012048	070428	HAYDL	1
CO	GRENE	042808	0809	4501358700	1000	GREENWOOD		012048	070428	HAYDL	1
CO	CASHW	042485	0753	4501358700	1000	CASPER		012048	070428	HAYDL	1
CO	PHID	042209	0911	4501358700	1000	POST PHILLIS		012048	070428	HAYDL	1
CO	ALCOA	042185	1710	4501358700	1000	ADDDY		012048	070428	HAYDL	1
CO	ALCOA	042185	0800	4501358700	1000	ADDDY		012048	070428	HAYDL	1
CO		000000	0000	4501358700	1000						
CO		000000	0000	4501358700	1000						
CO		000000	0000	4501358700	1000						

A billing clerk creates an invoice on the host system. Once the invoice is created, it is downloaded from the host to the Lanier ONLINE system (LAN).

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The screenshot displays a software interface for Arrow Trucking. It features a main window titled 'Batch File VARI1' and 'Original Document'. On the left, a 'File Actions' menu is visible. Below it, a metadata panel lists various fields: Terminal Site (45), Order Number (13587), Load Reference Number (1), Load Date (19950421), Load State (WA), Unload Date (19950427), Unload State (TN), Driver Code (HAYDL1), Customer Code (ALCOA2), Unload City (ALCOA), Truck Number (012048), Gov. BOL, and Container Number.

The main window contains a 'THIS SHIPPING ORDER' form with the following details:

- From: NORTHWEST ALLOYS, INC.
- Ship To: ARBY, WA
- Carrier: ARBY TRKING CO
- Ship From: ALUMINUM COMPANY OF AMERICA, SOUTH PLANT, ALCOA, TN 37781
- Ship To: ARBY, WA
- Equipment Type: VAN
- Vehicle No:

Below the form is an 'Accessory Manager' window with a menu bar (File, Edit, Settings, Action, Script, QuickPad, Window, Help) and a table of shipping orders. The table has columns for ST, CITY, DATE, TIME, LOAD, PLUS-M1, CITY, NAME, TRACT, TBLR1, DRV1, and INTR. The data rows show various shipping locations and dates, with the first row being the most relevant to the invoice shown.

ST	CITY	DATE	TIME	LOAD	PLUS-M1	CITY	NAME	TRACT	TBLR1	DRV1	INTR
AL	ALCTN	042795	1202	45013587001	000	ALCOA		012048	070428	HAYDL	1
DE	DMIA	042895	0826	45013587001	000	DES MOINES		012048	070428	HAYDL	1
GA	GRENE	042895	0809	45013587001	000	GREENWOOD		012048	070428	HAYDL	1
GA	CASHP	042895	0753	45013587001	000	CASPER		012048	070428	HAYDL	1
GA	PFID	042295	0911	45013587001	000	POST FALLS		012048	070428	HAYDL	1
GA	ADONA	042195	1710	45013587001	000	ADDY		012048	070428	HAYDL	1
GA	PADORA	042195	0800	45013587001	000	PORTLAND		012048	070428	HAYDL	1
GA		000000	0000	45013587001	000						
GA		000000	0000	45013587001	000						
GA		000000	0000	45013587001	000						

At the bottom of the interface, there is a 'RESPONSE AREA' and an 'INVALID MESSAGE 008'.

This invoice is then printed with support documents and the Packet Status Field is updated to a "P" meaning that the invoice has been printed and will not show up in the next report.