## National Association of Investment Clubs (NAIC) <br> Madison Heights Michigan <br> By Logic Systems Engineering

## Case Study

## Problems

- NAIC experienced expensive shipping errors based on incorrect address data
- The existing "free" mail system was time-consuming with manual data entry only
- Similar looking products caused "picking" errors
- Comparing rates between carriers was impractical


## Solution

Logic Systems Engineering designed a shipping system, which processed all carriers on a single networked system, allowed NAIC to shop for the least costly carrier, and verified that the correct product was shipped. The result: \$500,000 annual savings!

The National Association of Investors Corporation (NAIC) is a non-profit, tax-exempt organization whose membership consists of investment clubs and individual investors. It was founded in 1951 with a mission to provide a program of sound investment information, education and support in order to create successful, lifetime investors.

In the 1990s, the way the organization processed orders wasn't much different from what they did in the 1950s: customer service produced a list of orders that contained members' address information, product codes and quantities. Fulfillment had to pick, pack, handwrite the address, apply postage and ship the material; however, this method was highly prone to error. Inaccuracies in the written addresses or ZIP codes would result in packages that never arrived. Another package would then have to be prepared and sent. Each re-shipment added $\$ 150$ of extra cost.

NAIC first tried to solve their problems using a "free" carrier-provided computerized shipping system from UPS. Although the new system produced more professional looking labels, the errors continued. Having to type several hundred addresses a day took even more people and time.

NAIC's Operations Manager is responsible for making sure that members receive what they ordered on a timely basis for the least amount of money. With a membership of 537,150, the amount of information that is shipped daily to members is massive: on average, NAIC ships over 200 packages a day, with peaks of up to 800 packages a day and spends over $\$ 2$ million a year in freight. Frustrated by having to deal with upset customers, answering an average of 30 inquiries a day regarding package tracking, NAIC turned to Logic Systems Engineering Corporation. After a thorough analysis of NAICs current shipping operation, Logic proposed ClipperShip, a new shipping system that would integrate directly with the host computer system where the customer service representatives entered orders.

After conducting their due diligence, NAIC's President and their Director of Information Services agreed that Logic's approach would eliminate errors, thereby saving $\$ 1,500$ a day and would automatically shop for the best rate between NAIC's two parcel carriers, United Parcel Service (UPS) and the United States Postal Service (USPS).

Clippership seamlessly integrated with NAIC's UNIX-based host system. Consequently, the need to type addresses was completely eliminated and errors were reduced by 80 percent. NAIC shipped out more packages a day with fewer people resulting in a savings of over $\$ 40,000$ a year.

The system was interfaced with real-time communication so that when a package was shipped, the tracking number, date, and carrier was immediately recorded in NAIC's UNIX system. With this interface, Customer Service Representatives could respond to customer inquiries instantaneously, thereby reducing monthly phone expense and increasing customer satisfaction.

The typical package that NAIC sends to its members weighs 2 to 3 pounds. Since ClipperShip can automatically determine whether a ZIP code is in an urban, rural or residential area, it allowed NAIC to shop for the best carrier shipping rate. The difference between UPS and USPS priority mail with delivery confirmation on a 3 pound package is over $\$ 2$, a savings of 60 percent. Because USPS provided NAIC with free boxes to ship the information, NAIC realized an additional savings of $\$ 20,000$ per year.

Even with the new shipping system implemented by Logic, customers still, at times, received the wrong software due to human error: product boxes that looked similar were occasionally confused.
Furthermore, customers found it inconvenient to "register" the software they received. Logic's team of engineers designed a solution that required the shipper to scan the bar code on every box before it was packed, verify that it was the correct product code and register the serial number within their UNIX system. Using this new process, errors were dramatically reduced and saved NAIC almost $\$ 400,000$ per year. And customers no longer needed to register their software.

## NAIC's Total Annual Savings:

Errors: \$396,000
Labor: $\$ 40,000$
Boxes: \$20,000
Freight: \$79,200
Total: \$535,200

SYSTEMS ENGINEERING

