



## Solution Overview

### Customer

Imperial Tobacco of Canada LTD

### Industry

Tobacco and cigarette production

### Key Benefits of Thin Clients

Remote Management  
Scalability  
Flexibility  
Performance  
Manageability

### Applications Deployed

Java  
Wonderware FactorySuite  
Microsoft .NET

### Markets Served

Consumer Products

### ACP Solutions

Xycom 3412T  
Xycom XA1300  
Advantech MBPC-5820-ACP



### About ACP ThinManager®

ACP's ThinManager® is an enhancement to the basic Windows® Terminal Server operating systems such as Windows® 2000 Server and Windows® 2003 Server. The features added by ThinManager® focus on the industrial market, allowing users to replace the PCs they are now using on the factory floor with inexpensive "Windows terminals" that are much easier (and less expensive) to maintain. While any Thin Client will allow multiple instances of existing Windows® software to run on a single PC (the Terminal Server) only ACP Enabled Thin Clients running under ThinManager® provide the functionality, redundancy and I/O required in industrial installations.

# Forklifts give new meaning to "Mobile Computing"

*"I don't have to get up out of my chair to manage nodes - I can manage from afar. I don't have to go across the plant to fix things now. In fact, I can manage the Aylmer plant from Guelph, 75 miles away."*

— Peter Gilmour, IT Specialist, Imperial Tobacco Canada

Imperial Tobacco Canada has been Canada's leading tobacco company for over eighty years, producing two-thirds of Canada's cigarettes including du Maurier, Players, and Matinee.

Imperial is currently running a cigarette manufacturing plant in Guelph, Ontario, and a tobacco processing facility in Aylmer, Ontario. Their corporate office is in Montreal.

### The Challenge: Deploying Inventory Management Software on Moving Forklifts

Imperial Tobacco was dispatching forklifts to move materials and products with an old-fashioned paper-based requisition and confirmation system. A computer-based system would be faster and more responsive, with greater accuracy and easier record keeping.

The problem - mounting a computer on a moving forklift. PCs are large, and the vibration and movement of the forklifts are extremely damaging to hard drives. ThinManager Ready Thin Clients provided the solution.

### Implementing ACP Technology

Imperial researched Thin Clients and found that ACP provided the features that they needed. They attended an ACP Forum to learn the details and then set about deploying Thin Clients on the forklift project.

They chose Xycom XA3412T units with an integrated touch screen, powered with 24v DC from the forklift. The units connect to the network through an Enterasys RoamAbout wireless transmitter. This communicates with the wireless network that Imperial already had in place.

Additionally, each unit has a long range barcode scanner attached to its PS/2 port. This allows the driver to scan material from the forklift and have it qualified by the material verification program running on

the terminal server.

The Xycom Thin Client displays a browser that shows a Java Flash application (running on a server in Montreal) that allows the driver to receive instructions from the Inventory Management system while driving. He then uses the tethered scanner to verify that the right material is picked up, and then delivers it to the needed location. This mobile forklift deployment has been installed on sixteen forklifts as of this writing.

Reliability is a key issue, so a second tier of scanners was installed on stationary Thin Clients. These wireless scanners connect to a base station that is attached to the PS/2 port of a Xycom XA1300 ThinManager Ready Thin Client. If the forklifts are unavailable, an operator can carry the wireless scanner to verify the material. The data are sent to the base station and into the system through the Thin Client.

### Future Plans

Since the initial deployment, Imperial Tobacco has expanded their usage of ACP several times in Guelph, including deploying ThinManager Ready Thin Clients as HMI workstation upgrades.

One feature that Imperial likes is the Thin Client's flexibility. Units can be given unlimited access, applications, and resources, or can be limited to a single application with simple settings.

Additionally, the remote management and administration has simplified management and maintenance. Because patches and upgrades are performed on the terminal servers, not the clients, less time is wasted walking to the nodes for management.

Imperial also expanded to a second site, the tobacco processing plant in Aylmer. Because the two sites share a Wide Area Network, Thin Clients and Terminal Servers at the Aylmer site can be monitored, managed, and even shadowed from the Guelph site.

