



Why MCL-Designer

Visualize...high productivity development

Realize...MCL-Designer





Why MCL-Designer

Enterprises throughout the world use MCL-Designer to:

- ❖ Create sophisticated mobile worker applications
- ❖ Minimize their total cost of application ownership
- ❖ Maximize their mobile worker productivity

MCL-Designer is a high-productivity development environment for creating powerful mobile worker, data management applications with cross-platform portability and forward migration:

- ❖ Accelerate development time
- ❖ Accelerate time to market
- ❖ Accelerate return on investment
- ❖ Future-proof your applications

MCL-Designer creates intelligent, multimodal applications that run on mobile computers. These applications take advantage of the latest advances in mobile computing technology—superior operating systems, powerful processors, crisp color displays, extensive memory capacities, voice recognition, radio frequency identification, imaging, and wireless communications.

- ❖ Control and benefit from the unique features of each mobile computer
- ❖ Use whichever inputs/outputs are most efficient

As a component of MCL-Collection, MCL-Designer helps you benefit from MCL-Collection's thick client architecture. For example, MCL-Designer can create mobile applications that operate in real-time or batch communications modes; in continuously or casually connected communications modes; and in wired or wireless communications environments.

- ❖ Benefit from MCL's deployment flexibility to minimize operating costs while maximizing worker productivity

Create robust mobile worker applications that are optimized for quick transactions, high performance, reliability, scalability, and low cost of operations.



Application Example – Warehouse Receiving

Consider your warehouse receiving operations. One of your suppliers delivers a pallet of goods to your receiving dock. Your usual receiving process is to: check that a purchase order exists for the incoming goods; check the incoming goods against the order line items and order quantities; identify overages and shortages; conduct an incoming inspection; place the goods in a temporary receiving area in preparation for item level putaway; and close the purchase order when all items and quantities are received correctly and completely.

Data capture technologies, such as barcode scanning, expedite this workflow thereby accelerating the movement of goods and information through your warehouse. The net result is improved accuracy and efficiency in your warehouse that adds to the overall accuracy and efficiency of your entire supply chain.

Barcode scanning is the standard today for pallet, case, and item identification in warehouse receiving operations. New technologies such as voice recognition, with its speech-to-text and text-to-speech translations, expedite the receiving process even more.

MCL-Designer is the development environment that allows you to create mobile workforce, data capture applications such as real-time warehouse receiving applications.

Maximize worker productivity. Create multimodal applications that integrate technologies such as barcode scanning, keyboard input, and voice recognition in one application.

MCL-Designer and Voice Recognition

How does voice recognition improve your warehouse receiving workflow? Consider the use of voice recognition in the warehouse receiving application described above. Data inputs, like ‘quantity’, may be spoken or entered using a keyboard. With commands like ‘Page-Up’, ‘Page-Down’, ‘Next’, and ‘Back’, voice may also be used to quickly navigate around in your MCL receiving application.

MCL’s multimodal approach gives the mobile worker the flexibility to use whichever input method is most convenient and efficient at the moment. Keyboard entry or voice entry of a Code-128 case number, or a UPC or EAN item number is not as efficient as barcode scanning the case or item number. However, keyboard input or voice input of a quantity variable is more efficient than barcode scanning a quantity. Furthermore, if your mobile worker’s hands are full of received goods, a keyboard input may not be as convenient as voice input.

Using MCL-Designer Voice Add-on you can easily voice enable any traditional MCL data collection application with automatic speech recognition, ASR; and voice synthesis text-to-speech, TTS. Voice is simply a new front-end data input/output to your MCL applications.



Voice recognition brings many benefits to your organization:

- ❖ Increases mobile worker efficiency and productivity
- ❖ Allows hands-free operation so mobile workers can focus on other activities, such as moving goods
- ❖ Allows eyes-free operation so mobile workers can focus on other activities, such as driving or stocking product

MCL's unique multimodal implementation of voice brings your organization additional benefits:

- ❖ All data capture methods are handled as complementary technologies.
- ❖ Customers do not have to choose voice over other data capture technologies.
- ❖ Mobile workers use whichever data capture method is most efficient and convenient to perform the task at hand.
- ❖ Work flow can be directed by the host application or by the mobile workers.

MCL-Voice benefits companies across the entire range of mobile worker applications including warehouse operations, quality control, field service, inventory management, stock counting, and asset tracking, to name a few.

The Power of MCL-Designer

MCL-Designer's benefits do not start and stop with voice recognition and its speech-to-text and text-to-speech capabilities. These are simply examples of its capabilities.

The true power of MCL-Designer comes from the ease with which these capabilities are implemented and integrated. Complex applications are created in a very short time with the extensive use of MCL-Designer's dialogue boxes, radio buttons, drag-and-drop, cut-and-paste, screen viewer, screen copy, screen insert, screen delete features, and a library of your own frequently used MCL objects.

Processes

Complex logic is integrated quickly via built-in "processes". Consider an inventory application. You have barcode scanned and counted 5 of an item. Later you barcode scan and count another 10 of the same item. Using MCL processes you can handle this situation several ways. For example, you can create two unique records showing quantities 5 and 10 of the item respectively, or you can update the first record to show a total quantity of 15 for the item. Both approaches are accomplished very easily with process commands available in MCL-Designer.

Another example of a process is a real-time host update. A mobile worker has just entered shipping data into a mobile computer. You can use an MCL process to update a spreadsheet database, for quick review of the transaction by the shipping supervisor, and use a second consecutive process to post the given shipping transaction on your SAP R/3 system.



This transaction can also be handled in a casually connected mode. For example, your shippers usually work in a wireless LAN environment updating the database and SAP system in real-time. However, occasionally, your shippers enter an area without wireless coverage, such as a truck or cargo hold of an airplane. When the wireless connection is not found, the MCL application can accumulate the transactions on the terminal. When the shipper enters back into an area with wireless coverage, the MCL application can, using a built-in process, automatically upload the batched transactions to the spreadsheet database and SAP system.

MCL-Designer includes many classes of “processes” to simplify the implementation of complex logic such as this in your mobile worker applications:

- ❖ Variable
- ❖ Mathematic
- ❖ Date Operation
- ❖ Branch
- ❖ File
- ❖ ODBC
- ❖ Host Communication
- ❖ Aux Communication
- ❖ Display
- ❖ Timer
- ❖ Graphic
- ❖ Other

[Simulator and Advanced Debugger](#)

MCL-Designer includes a Simulator with an integrated advanced Debugger tool with line-by-line control of your simulation. The simulator includes the ability to simulate inputs, outputs, host communications, and database access. The simulator can also receive real barcode scanner input, send real printer output, perform live host communications, execute live database operations, and so on.

The Simulator, Debugger and a Verifier tool are unsurpassed in the industry for application development, testing, user training, and application maintenance.

These capabilities further accelerate development cycles and deployment readiness.

[Report Generator](#)

One of MCL-Designer’s most unique, productivity boosting, and quality assuring features is its Report Generator.

- ❖ How often do your final documents reflect the actual deployed applications?
- ❖ How often do you modify your applications and not update your documents accordingly?
- ❖ How much time do you spend making sure your documents do always reflect your deployed applications?

With the click of a button, MCL-Designer automatically generates comprehensive application documentation. Using this report as a foundation, quickly create training materials, user’s guides, application documentation, or application specifications.

MCL-Designer unburdens you from the tedious, yet critical, task of keeping your documentation in-sync with your applications.



MCL-DESIGNER FEATURES SUMMARY

Feature	Benefit
High-productivity development environment	Quickly create sophisticated, enterprise-ready, mobile workforce, data capture applications with cross-platform portability.
Multimodal applications	Create applications that combine technologies such as barcode scanners, touch screens, keyboards, signature capture, imagers, radio frequency identification, displays, printers, and voice recognition in one application.
Migrate wizard	Import, convert, upgrade, and enhance your DR-DOS MCL applications to run on Symbol MC3000, MC1000, MC50 or MC9000. Note: This feature is applicable to Symbol Technologies terminals only.
Graphical User Interface	Use graphical, high productivity features such as dialogue boxes, radio buttons, drag-and drop, cut-and-paste, screen viewer, screen copy, screen insert, and screen delete to accelerate development.
Processes	Implement complex application logic quickly via MCL-Designer's built-in "processes" to facilitate host access, file manipulation, mathematical computations, communications, and more.
Custom Library	Accelerate development by creating a library of your own frequently used MCL objects for reuse in numerous projects and applications.
Thick client/server architecture	Create device resident applications that control and take advantage of all the unique features of each mobile computer.
Simulator and Advanced Debugger	Simulate your application during development. Debug your application with line-by-line control. MCL-Designer's Simulator, Debugger, and Verifier are unsurpassed in the industry for application development, testing, and on-going maintenance.
Report Generator	Boost productivity and quality assurance; automatically create comprehensive documentation with the click of a mouse. MCL-Designer unburdens you from the tedious, yet critical, task of keeping your documentation in-sync with your applications.
Communications	Create mobile applications that transition seamlessly back and forth between: <ul style="list-style-type: none"> ❖ Real-time communications and batch communications. ❖ Continuously connected and occasionally connected states. ❖ WLAN, WWAN and wired communications environments.



Getting Started on Your MCL-Designer Application

- ❖ Download and install from www.mcl-collection.com:
 - MCL-Designer engine.
 - Designer Device Plug-In(s) for your targeted mobile computer(s).
- ❖ Run MCL-Designer
- ❖ Use the sample project/application included with MCL-Designer to start learning MCL
- ❖ Modify the sample project to start your own project
- ❖ Use MCL-Designer's Simulator and Advanced Debugger to test your application during development... no mobile computer hardware is necessary for you to get started
- ❖ Purchase your MCL-Collection products
- ❖ Have your MCL mobile worker application ready to launch the day you receive your mobile computers!

Download as many Designer Device Plug-Ins as you want to evaluate. Use them in demonstration mode until you are ready to make your MCL-Collection purchases.

Try MCL-Designer today in demo mode. See for yourself the productivity, cross-platform portability and multimodal flexibility it provides.



Top Reasons to Use MCL-Collection

- ❖ Core competency in development tools for data capture, mobile workforce applications development, deployment, and management.
- ❖ High productivity development environment to create applications that integrate data capture technologies, wireless communications, and mobile computing.
- ❖ Development environment to create multimodal applications combining technologies such as barcode scanners, touch screens, keyboards, signature capture, imagers, radio frequency identification, displays, printers, and voice recognition.
- ❖ Flexible, modular deployment architecture:
 - Building blocks to customize host access, network size, and communications modes.
 - Easy concurrent access to host applications, ODBC compliant databases, warehouse management systems (WMS), and enterprise resource planning (ERP) systems.
 - Scalable deployments from 1 to 62,500 concurrent mobile terminals per server.
 - Efficient for small system deployments.
 - Powerful and optimized for large distributed system deployments.
 - Real-time, on-demand, or batch data communications.
 - Seamless, transparent transitions back and forth between these modes of communication.
 - Continuously, casually, or occasionally connected users.
 - Seamless, transparent transitions back and forth between states of connection.
- ❖ Framework so you can focus on functional business issues, and not on implementation issues and constantly changing low-level technologies such as operating systems, wireless infrastructures, and data capture methods.
- ❖ A focus on minimizing your total cost of application ownership:
 - High-productivity development environment.
 - Low on-going maintenance effort.
 - Modular, flexible architecture.
 - Easy application deployment and management.
 - Cross-platform compatibilities.
 - Forward migration paths.
 - Future-proofed applications.
 - Investment preservation.
- ❖ Benefits to your organization from data capture, mobile worker applications created using MCL-Collection:
 - A mobilized workforce.
 - Workforce productivity improvements.
 - Cost reductions.
 - Competitive advantages



❖ **MCL-Designer**
High-productivity, horizontal development environment to create enterprise-ready, multimodal, data capture applications.

❖ **MCL-Link**
Batch/ Point-to-Point, Serial:
▪ Direct Connect RS-232
▪ Modem
▪ USB

❖ **MCL-Net**
Real-Time/ Concurrent Users:
Wireless
▪ WLAN: WiFi, 802.11
▪ WWAN: GSM, GPRS,
Wired Ethernet

❖ **MCL-Bridges**
▪ Host Applications
▪ Back Office Applications
▪ ERP: SAP
▪ Warehouse Management (WMS)
▪ ODBC: Oracle, Access, FoxPro, DB2, Excel, Sybase, SQL

❖ **MCL-Voice**
Voice Recognition, Voice Synthesis

❖ MCL Technologies Headquarters
Chaussée de Bruxelles, 572
1410 Waterloo – Belgium

Tel +32.2.724 35 00
Fax +32.2.724 35 04

marketing@mcl-collection.com

support@mcl-collection.com

❖ MCL Technologies US – Competence Centre
Competence.usa@mcl-collection.com

❖ MCL Technologies UK – Competence Centre
Competence.uk@mcl-collection.com

❖ MCL Technologies Ireland – Competence Centre
Competence.ie@mcl-collection.com

❖ MCL Technologies NL – Competence Centre
Competence.nl@mcl-collection.com

About MCL Technologies

MCL Technologies is a recognized leader in delivering high-productivity software development tools for mobile workforce application development, deployment, and management. Its enterprise-ready, standards-based software suite, MCL-Collection, seamlessly integrates the latest technologies with mobile computer, multi-manufacturer, cross-platform compatibility. Through the integration of mobile computing, wireless infrastructures, and data capture technologies like barcode scanners, radio frequency identification, and voice recognition, MCL-Collection helps organizations deploy mission critical and on-demand multimodal applications to improve workforce productivity, reduce costs, and achieve competitive advantage. Since 1992, MCL-Collection has been implemented in thousands of locations around the world by large and small organizations with sectors of activities as varied as retail, banking, healthcare, government, transportation and logistics, warehousing, field service, and manufacturing. More information is available at <http://www.mcl-collection.com>.

