Collect CE

Portable Instrument Interfacing Solution

Collect CE is a portable solution that uses a Pocket PC to efficiently and accurately capture readings from minor laboratory instruments such as pH meters, barcode readers, force gauges, digital calipers and spectrophotometers.

Rather than dedicating a desktop PC to each instrument, you can place an RS232 cradle beside the instrument. To interface to the instrument, simply slide the Pocket PC into the cradle, select the test you want to perform and begin collecting data. When all of the samples are analyzed, move on to the next workstation and collect more data.

At convenient intervals, return the Pocket PC to a central PC and place the Pocket PC in its' cradle. New files from the Pocket PC are instantly uploaded (synchronized) with the desktop PC. If the PC has LIMS interfacing software, such as LimsLink from Labtronics Inc., data from the Pocket PC can be automatically synchronized directly to the LIMS.

- Microsoft

 Pocket PC 2002 compatibility eliminates the need to dedicate a PC to each instrument
- Pre-configured to work with most instruments
- Collect data directly from your instrument into Pocket Excel® or any other Microsoft® Pocket PC 2002 application
- Transfer worklists or other sample information from a central PC
- · Control cursor movement within applications
- Store multiple instrument setups for use at different workstations
- · Support for multiple COM ports
- Sophisticated interface for setup and RS232 communications troubleshooting

Cost Analysis

The combination of Pocket PC technology with Collect CE software provides a cost-effective solution that brings significant increases in efficiency to any lab. Eliminating the need to have a desktop PC beside each instrument dramatically reduces the cost of interfacing each instrument.

Consider a laboratory that has 10 instruments, operated by 3 technicians. Each instrument requires an RS232 cradle for the Pocket PC. Each technician is issued a Pocket PC outfitted with Collect CE software. If we assume that the laboratory already has a central desktop PC to receive the collected data, the total cost for automating 10 instruments is around US\$/€3,300 or US\$/€330 per instrument.

Cost to Interface 10 Instruments Used by 3 Technicians

Item	Unit Cost (∪S\$/€)	Quantity	Total (∪s\$/€)
1 RS232 cradle for each instrument	35	10	350
1 Pocket PC for each technician	600	3	1,800
1 copy of Collect CE for each	395	3	1,185
technician			
	Total cost		us \$/€3,335
	Cost per instrument		us \$/€333.50

The relative cost of interfacing the instrument is now in line with the cost of the instrument. Additionally the interfacing solution requires very little space on the lab bench, further reducing the interfacing cost. The benefits of increased efficiency, and decreased transcription errors are easily cost-justified.

System Requirements

Collect CE runs on the Microsoft® Pocket PC 2002 operating system and has been fully tested using the IPAQ 3950 Pocket PC.

Installation requires approximately 1.5 MB of storage space, and the Pocket PC must have an RS232 connection.