



# Techneos Entryware 6

While many of the major marketing research data collection developers are heading in the direction of multimodal interviewing, Canadian firm Techneos Systems is resolutely sticking to the field it knows: mobile computer-aided personal interviewing (MCAPI). And with good reason too, as it is a field that keeps growing – thanks to the freedom that wireless data communications offers researchers and the chipping away of the dominance of the Palm OS by pocket versions of Windows. In fact, when Techneos talks about mixed-mode support, it now means being able to deploy the same interview on everything from a monochrome Palm bought several years ago through to tablet PCs, in one direction, and smart phones in another.

Techneos came early to the mar-

ket, specialized and produced a groundbreaking product which has spawned many imitators. But for some buyers, its sole allegiance to the Palm OS, rather than Windows, made it rather too specialized for comfort. While Palm has remained very common in North America, in Europe and in Asia, Windows CE has long been dominant, and Palm is no longer viewed as mainstream. That changed when Entryware 6 emerged last fall, as it offers support across the range of Windows devices, from Windows tablets or touch-screen/kiosk devices to Pocket PCs and the new ultra-mobile mini-tablet PCs.

Not that Palm has been forsaken. Rather than reimplement as a native Windows application, Techneos made use of a Palm emulator on the Windows devices. This is in no way apparent to the end

*Editor's note: Tim Macer, managing director of U.K. consulting firm meaning ltd., writes as an independent software analyst and advisor. He can be reached at tim.macer@meaning.uk.com.*

user in either convenience or performance. Both the software and the emulator have a tiny footprint, so plenty of room is left for data on even the smallest devices, and there is complete compatibility between the two platforms, so any survey written for one type of device will run on any other.

There are only three fairly specialized features which are Windows-specific, which will fall back to less-sophisticated counterparts on a Palm in each case. Indeed, a survey written for a Palm PDA will dynamically scale itself up to the larger screen of a Windows laptop or tablet. Texts reflow and pop-up lists become grids on the larger screen, for instance. It is a true “design once, deploy to all” multimodal approach within the different modes of CAPI.

**Entryware Version 6 MCAPI software by Techneos Systems ([www.techneos.com](http://www.techneos.com))**

**Pros**

- Works online or offline
- Excellent international capabilities

**Cons**

- No support for CATI or paper
- Built-in reporting tool is basic and inflexible

### **Achilles' heel**

The Achilles' heel of MCAPI has always been the open-ended question. Even veteran survey writers don't agree on the best way to handle them. After all, an open box on screen, with no keyboard, inevitably means a lot of frenzied tapping with a stylus for the interviewer and a disruption in the flow of the interview. Writing it down and punching it in later is no better. For many, the simple answer is just not to do open-end questions. But now, sound recording is a viable option, and Techneos has added an audio capture-type question to take advantage of the audio capabilities of many of the devices around today. For usable sound quality, this means using a device with a microphone port and a decent clip-on or handheld microphone.

The move to Windows makes the software highly suitable for kiosk interviewing situations too, where a larger screen is required. It functions well with or without a keyboard, using a touch screen, and the built-in wireless communications capabilities mean it can be controlled centrally, with instant upload of data or download of new surveys, yet it needs no more than an AC outlet to plug into.

The software is also strong on international features. It supports multiple languages and character sets, and language translations are handled efficiently by exporting, for example, the English version into an Excel file, where the translator enters translations into the next column. You then re-import the file and select the language into which all the translations will flow. Each interview is then multilingual, and interviewer or respondent can complete in whichever language is most appropriate.

### **Simple and straightforward**

The route through the software, from design to deployment to data,

is highly streamlined. Design takes place in a Windows application which is simple and straightforward, and the actual appearance of the survey on the target device can be simulated to make sure everything fits. Options abound for data transfer, either by direct push to each device (via a PC workstation and cable, cradle or Bluetooth) or pulled from the device over the Internet. Whenever an Internet connection is available, the device will constantly poll for new surveys or instructions, and hand back any data collected. But if the connection is severed, it will work in standalone mode without restriction and synchronize again when it can. Internet communications are provided via Techneos' hosted Entryware Server service for an extra cost. Using it makes sense when you have a dozen or more devices.

Entryware 6 also introduces the ability to interact with other applications, such as to perform database lookups or conversions or to interface to your own custom research technique. Applications can be written in JScript or Visual Basic, two very common programming languages.

Perhaps the weakest area of Entryware is in the reports it provides, where there are virtually no options to change or customize them. The reports present an unflattering picture of an otherwise immensely capable and versatile application, one that eases the burdens of fieldwork managers, interviewers and even respondents.

### **Moved to Entryware**

Blackstone Group is a full-service research firm with offices in Chicago and Chennai, India. The company has recently moved to Entryware on Palm PDAs for face-to-face interviewing at on-site locations. Blackstone Group Vice President Dan Rangel has been overseeing the transition and is enthusiastic about the streamlining

that wireless data capture brings to the disjointed process of in-person interviewing. "With a paper-and-pencil interview, there was always the possibility of human error such as missed skip patterns in a survey or the interviewer just forgetting to ask a question," Rangel says. "Once the surveys were completed we would then have to edit them, input the data and then convert it to Excel or SPSS. Now with Entryware, we program the survey and sync the logic into our Palm Pilots. The interviewer goes on-site like they did before but we interview using the Palm. As the interviewing takes place we capture clean data because the skip patterns have been pre-programmed. There is no need for editing, data entry or data reformatting. We also have the option to record open-end responses with our Palm devices. Data is sent wirelessly to Techneos' server where we can then go online and access the data.

"Also a huge plus is that you can get reports online on the progress of the study, which you could never do before with paper-pencil. And it is definitely an attention-grabber for sales. People are wowed by it," he says.

Commenting on the economics of the investment in hardware and technology, offsetting thousands of dollars of equipment against the rather more modest cost of pencils and paper, Rangel is anticipating the ROI to come in a number of areas. "You save money on data entry, data cleaning and data formatting. We invested in devices that have a microphone so the interviewers do not have to spend the time writing or typing open-end responses. You will spend money on programming, but overall, it will pay off in efficiencies."

### **Self-completion work**

Arnold + Bolingbroke, a London- and Sydney-based research consultancy, has used the technology for self-completion work. What used

to be diary-type surveys, where a booklet would be left with a household, is now likely to be a Palm PDA running Entryware.

Matt Crane, data manager at Arnold + Bolingbroke, had Techneos make a small number of adaptations to the software to make it respondent tamperproof, and the company now has 1,000 Palm PDAs running Entryware which shuttle around the globe, from respondent to respondent. The result is a new diary capability in the software which any Techneos user can take advantage of. One key development was to make the survey captive on the device, ensuring that respondents cannot break out of it to use the PDA for anything else and making it unattractive for respondents to "lose" or steal the devices. "So far we have used them in Australia, South America, across Europe and the United States many times. And we have used them in many languages - in Russia with Cyrillic script and in Japan with Japanese script," Crane says.

The questionnaire runs as a loop, so the respondent cannot leave the survey without knowing the special password the fieldwork managers use to set up the device and unload

the data at the end of the assignment. The device simply snoozes between each data capture episode and wakes up again when the respondent taps on the screen.

"The idea was to put a standard diary questionnaire on a PDA and give it to respondents, who could then keep it and fill it in on an hourly basis over a period of days," Crane says. "We put together a basic questionnaire on a PDA, but at that time had not worked out how we would get respondents to complete this on an hourly basis. The calendar functions within the PDA are not good enough, so we spoke to Techneos and they developed Entryware to take into account this need for the diary. We now have the functionality within the software to program an alarm function which repeatedly lets the respondent know it is time to complete the next section of the survey."

A great feature of Entryware is its ability to set a reminder, either by time of day or a relative time (e.g., one hour later). It can even be programmed to allow respondents to determine the times they want to be prompted. It makes respondents more likely to respond closer to that elusive "moment of truth" and is therefore likely to

increase the validity and completeness of diary surveys, and avoid the situation where a respondent fills in a whole week's worth of events from the false perspective of the half-hour before the diary has to go in the mail. The timestamp in the data provides useful corroboration that events have been recorded as they happened too. And as multi-level data structures have never presented a problem to Entryware, researchers can make diaries much more sophisticated than they would dare on paper while keeping things simple for respondents.

"The software is very intuitive. But as you get more used to using it you realize there are a lot of features to allow you to do quite complex things. Yet even the more worried respondents soon become quite blasé - they often say it is just as easy as using a mobile phone, which really it is," Crane says.

"The beauty of the PDA survey is that people can take them with them wherever they are going. The diary is designed to be a very straightforward set of questions at any one stage, so you do not get respondent fatigue. We kept it very simple and as a result we get very rich data." | Q