Keeping your IE-33 Program
and Your Measurement Data Secure

Table of Contents

Part I: Background – Why/How can I lose my IE-33 program?

The IE-33 is designed to use the processing power of the iPAQ PDA (Personal Digital Assistant). While the analog audio processing and conversion to digital (A to D) is done in the IE-33 expansion jacket, the digital analyzer processing power is supplied by the 400 MHz processor of the iPAQ.

The iPAQ (and, indeed, all PDA devices) was designed with a group of users in mind who would use the PDA on a daily basis for addresses, appointments, notes, and third-party applications. The PDA designers assumed that their products would be in daily use.

The use profile of a measurement instrument does not necessarily include daily use. *This disparity in use philosophy can lead to a problem if not recognized.*

PDA users allow their PDA to "live" in a charging cradle when not in their pocket. The assumption of the designers was that the PDA would be charged almost daily. <u>As long as the IE-33 user understands that the design of the PDA (which is not under Ivie's control) assumes that it will be regularly charged, and the user does so, there is no problem.</u>

But when the IE-33 is put away for a week or two without being charged, there is a danger that the iPAQ PDA may lose its battery charge, thence losing it's program content. Bluntly put, <u>if you let your iPAQ batteries completely discharge, the iPAQ will lose all data and all third party applications such as the IE-33 program</u>. Unfortunately, Ivie has no control over this, as it is a part of the design of the iPAQ PDA.

If your IE-33 iPAQ has become completely discharged you are likely to be greeted with an array of unanticipated and unwanted messages when you re-charge the unit and try to open up the IE-33. Not only will your program <u>data</u> have been lost, but the actual IE-33 <u>software application</u> will have disappeared.

Part II: The Original (and still valid) Method of Reinstallation and Recalibration

The Procedure: 1. You will need to **obtain the IE-33 program installation file**. This can be found on the Ivie CD that came with your product. However, you should definitely check Ivie's web site (www.ivie.com) for the latest version of the IE-33

software. Ivie continually updates and improves the IE-33 application software; you can get the latest, most full-featured version from the software or download sections of Ivie's web site. Ivie's web site is www.ivie.com. If you download the zipped version of the file, you will need to unzip it before using it.

2. Once you have the IE-33 application setup file on your computer hard drive, you need to **establish communication between your iPAQ and your PC.** This is done by means of the sync cable/cradle and the Microsoft® ActiveSync® software provided on the Ivie CD that came with the product (alternatively, you can go to www.microsoft.com and search on the term "ActiveSync" to find the latest version of ActiveSync).

3.   Prior to inserting the iPAQ/IE-33 in the ActiveSync cradle (or attaching the sync cable to the iPAQ) you should a) **separate the iPAQ from the IE-33 jacket** and b) **perform a "soft reset" of the iPAQ** by inserting the stylus into the small hole in the bottom of the iPAQ for a second or so. You can tell you have performed the rest by observing the iPAQ screen.

4.   Place the iPAQ PDA in the cradle or attach the sync cable. Once communication between PC and your iPAQ is established, **simply double click the "IE33-Setup.exe" file**. Follow the prompts and the installation should proceed smoothly. (Alternatively, you can go to the Ivie web site (www.ivie.com) and download the latest version of the IE-33 software. If you have done this, then use the IE33-Setup.exe file you have downloaded from the Ivie web site <u>instead</u> of the one on the CD.)

5.   When the IE-33 application is installed (you will get a "successful installation" message), you should then be able to open the program. With the iPAQ still out of the IE-33 expansion sleeve, tap the Today menu and if there are not already too many items in "Today," the IE-33 software icon will appear. Tapping on the IE-33 icon will open the software. If there are too many items already in the Today menu, you can go to the Programs menu and find the IE-33 icon present there. Or you can navigate to Program Files > IE33 and double tap on "IE-33.exe" directly from that location.

Note: If you are using IE-33 Version 5.9 or later, you will not need steps 6, 7 and 8. Skip directly to step 9. (Beginning with v 5.9 the config file, which is where your calibration information is stored, is kept in the "iPAQ File Store" area of the PDA memory. This is a non-volatile memory area that will keep your config file data intact even if the batteries go completely flat.)

6. Once you have opened the IE-33 software (with the iPAQ not in the expansion sleeve), "OK" your way past the "No IE33 Jacket Found" message. Tap File > Input Select. Confirm that the IE-33M is the selected input. **Confirm that the number in the lower left "CC = " window corresponds to the dB Calibration number on your yellow calibration certificate.** If it does, you are calibrated and no further action is required other than to exit the calibration process (see step 8).

7. **If "CC = 0" then follow this procedure**:   The upper right window labeled "Calibrator dB SPL" should have the number 94 in it. Use the up/down arrows to change the number to that of the calibration number supplied on the yellow calibration certificate that came with the IE-33. (If you cannot find the certificate, you can call Ivie to have it restored) With the number in the "Calibrator dB SPL" window now showing the proper

calibration number, tap "Calibrate." Now tap "Done." Now Tap "OK". Your IE-33 is now calibrated.

8. To exit the calibration screens, tap "Done." If you have made any change to the calibration number, tap "OK." If you have made no change to the calibration number, tap "Cancel." Finally, tap "OK" to get back to the main IE-33 screens.

Part III: A New, More Convenient Method of Field Program Installation

Should the come a time when you find it necessary to re-install the IE-33 software, you can use the method in **Part II** above or . . . .

Now there is another, faster, better way! Beginning with version 5.8.2, a special "CAB" file is available in the Software section the Ivie web site. The file name for the latest version, 5.9, is "IE33-Setupv5.9ARM.CAB". (That file name will, of course, change to reflect new versions of the IE-33 software as they become available)

Via ActiveSync, you can copy this file to the "iPAQ File Store" folder on your IE-33 iPAQ. The iPAQ File Store folder is a non-volatile folder. If your iPAQ batteries are run down completely "flat," anything in the iPAQ File Store folder will remain in the iPAQ.

By going to the iPAQ File Store folder and "double tapping" on the "IE33-Setup-v5.9ARM.CAB" file, the IE-33 software will be installed from this non-volatile area into the folder from which the IE-33 application needs to operate.

Thus, by keeping a copy of the "CAB" file in the non-volatile iPAQ File Store area of your iPAQ, you can have an "emergency install" ready and in place, even if you find yourself in the field, away from a PC, when you have a need to reinstall.

Special Note: The act of double tapping on the CAB file will cause the IE-33 application software to be installed, but it will also erase the CAB file. If you want to have a permanent CAB file as an emergency install backup at all times, do this:

Using File Explorer in your iPAQ, or using File Explorer on your PC via ActiveSync, go the iPAQ File Store folder. Create a sub folder titled "Backup". Put a copy of the IE-33 CAB file in the /iPAQ File Store/Backup folder. Now, if you ever need to do an emergency install, simply make a copy of the CAB file into the /iPAQ File Store folder, run it (double tap on it) from there. The CAB file you run will be erased as the install takes place, but the copy in the iPAQ File Store/Backup folder will remain.

Part IV: A Way to Keep Your Measurement Data Secure

If your batteries go completely dead you will not only lose the IE-33 application software in the volatile memory area (Program Files > IE33 folder) of your iPAQ, but you could also lose the data files you have saved from measurements.

To keep your data secure, you can either store it in the iPAQ File Store area of your iPAQ, OR you can use an SD (Secure Digital) storage card plugged into the little slot on the top of your iPAQ and store the data there. (Do this by selecting one of these locations when you store a data file from within the IE-33 software.) In either location, the data

will be secure if and when you have a battery failure. The added advantage of using an SD card is that the data is then easily transportable.

Note: Remember, as desirable as it might be, you cannot run the IE-33 application software from the non-volatile iPAQ File Store area. Flash memory in the iPAQ is not fast enough to support running the application. You CAN, however, keep a backup installation file (the CAB file mentioned above) there!