IE-35 / IE-33 FAQ

With the introduction of the new IE-35 Audio Analysis System, many of our friends have asked questions about how the IE-35 relates to the IE-33. What's new? What's different? What's the same?

A number of our existing family of IE-33 owners/users have also asked questions. It is only natural to wonder what the new IE-35 has to offer as relates to the IE-33. It's also natural to wonder how Ivie will regard IE-33 owners now that there is a "new kid on the block."

Now that Ivie has introduced the IE-35, what kind of support can an IE-33 owner expect?
The same legendary tech support you've always had, the same service and updates you've come to expect. IE-33 owners are a part of Ivie's family of instrument owners. We remain fully committed to the IE-33 and its owners. We will continue technical support and service at the level you've come to expect.

As an IE-33 owner, why might I NOT want to immediately upgrade to the IE-35?
1. The IE-35 will have no functions or features that the IE-33 does not also have.
2. The IE-33 will continue to be supported with tech support and with software upgrades.
3. I can make virtually all of the measurements with my IE-33 that I can with the new IE-35.
4. I have my calendar and other data already in my iPAQ and I don't want the hassle of having to do a transfer to a new unit.
5. Some of the third party software applications I now run on my IE-33's iPAQ may not be compatible with the new WM2005 OS.

I own an IE-33. What is the difference between it and the IE-35? What's new with the IE-35 and why SHOULD I upgrade?
That's the first question I'd ask. And the answer is both short and long.
Short Answer: In terms of functions and features of the IE-33/35 software application, there is virtually no difference. Every feature in the IE-33 is in the IE-35, and vice versa. As we continue software development, new features and functions will appear. They will be available on both platforms. (The only exception will be if some new feature would depend on the Windows Mobile 2005 OS . . . in which case it will only be available on the IE-35. *But we haven't yet found an instance where this condition exists.*)

Long answer:
1. The IE-35 Audio Analysis System has moved to a new computing platform. The **Dell Axim X51v** will be the standard PDA used with the IE-35. (*The former iPAQ products are not physically compatible with the new IE-35 jacket.*)
    a) The Axim X51v now uses the Windows Mobile 2005® Operating System. The main advantage of the new WM2005 OS is the new "**Retentive Memory**" feature. <u>If your batteries go completely flat you do not lose any 3rd party programs OR any data!</u>
    b) The Axim X51v has VGA graphics. You'll have to see it to understand how cool that is!
    c) In addition to the standard "portrait" display, the X51v allows "landscape

display" which means that you can rotate the display 90 degrees. If you wish, you can now see the IE-35 display in an aspect ratio very much like the venerable (and vintage) IE-30.

       d) The high capacity battery (EP-1840) you had to order as an accessory with the IE-33 is now part of the standard IE-35 package. (Dell's high capacity 2200 mAh battery is standard with the IE-35, PLUS we provide you with the smaller Dell battery and cover should you wish to use the Axim as a standard PDA and have a smaller size package to put in your pocket).

       e) The X51v has a faster processor than did the iPAQ 3950 and 5550. In addition, there is a display co-processor and a communications co-processor, both of which free up the main processor for more important tasks.

For an independent look at the performance of the Dell Axim X51v, a review in the Windows Buyers Guide® (20 Sep 2005) is available at the link below. The last paragraph of the review states: "*Even with hardware similar to that of the X50v, this device remains cutting-edge, with the most powerful processor, best screen, and best gaming performance available. We think that's a good deal, so we'll recommend it as the leading Pocket PC PDA of the moment.*"

http://www.webbuyersguide.com/sub/windows/reviews/2760-wbgwindows_reviews.html

2. The IE-35 "P.A.L." jacket is all new.
     a) The PAL is made of aluminum, not plastic.
     b) It has a sort of "form follows function" design that is at the same time rugged and attractive.
     c) It's easier to grip, or hold in the hand.
     d) Along with the other standard accessories (belt pouch, CD, charger, cradle, etc) a wrist lanyard is now included.

3. Check out the reviews on the X51v. It's currently considered the best PDA out there!

The same high quality Type II microphone is used with the IE-35, only now it has a gold finish.

The Type I microphone (IE-2P and 1134/35 capsule) system is also compatible with the IE-35.

I have an IE-33 and I want to upgrade to the IE-35. What should I do?
Good question. And not an easy one from Ivie's position. We are a manufacturer. We do lots of cool things including excellent tech support and service. We do not, however, have a trade-in program or a buy-back program.

If you have an IE-33 and want to upgrade, you may wish to consider allowing someone else in the company to "inherit" the IE-33 and then pick up an IE-35 for yourself. If that won't work, there is always ebaY. IE-33's are an in-demand item at the moment.

What's included in the IE-35 package?
The IE-35 comes as a complete package. It includes the Dell® Axim® X51v PDA, with charger, synchronization cradle and cables (USB/RS232), custom acoustic analyzer software, and IvieXLS© graphing and plotting software (requires Microsoft Excel), manual, IE-35 "PAL" custom jacket with built in high quality preamplifier, analog/digital converter,

IE-35 hardware, high capacity 2200 mAH battery and back-cover, lower capacity battery and back-cover, IE-35M Type II microphone with mini QG connector, and custom belt-pack carrying case.

A version of the package without the Dell Axim is also available. See comments on requirements and limitations and compatibility in this document.

Can I use my own Dell Axim if I already have one?
Yes you can, "but" . . . The IE-35 PAL jacket is available without the Axim. However, there are several things you need to consider. The IE-35 PAL jacket is physically compatible with the Dell Axim X50 series and the Dell Axim X51 series. We recommend that X51v for a number of reasons.

You **must** have a Dell Axim X50V or X51v that uses the Windows Mobile 2005 OS. The IE-35 software is not compatible with the WM 2003 OS. If you have, say, a Dell Axim X50v, you have the processing speed and display, but this model did not ship with the 2005 OS. You would need to upgrade your OS to the 2005 OS (an upgrade kit is available from Dell).

There are other models in both the X50 and X51 product lines. They have less resolution and less processing power. We are not at this time sure if these models and the IE-35 software and functions have full compatibility.

Why do I need an external "jacket" for the Dell Axim? Why not just the internal microphone?
Good question. The IE-35 custom jacket provides a number of advantages, without which one could not make precision measurements.
** The microphone: Most important is the microphone. The internal Axim microphone is fine for what it was intended - voice. But the microphone and input circuit of the Axim look like an A-Weighted response when measured with a flat input signal such as pink noise. Trying to correct for the microphone response could seriously degrade the needed signal-to-noise and dynamic range. Ivie supplies, standard with the IE-35, a high quality Type II instrumentation microphone. And you can order the optional Type I air condenser instrumentation microphone for use with the IE-35.
** Superior signal-to-noise and dynamic range: Housed in the jacket is a high quality pre-amplifier which provides the signal to noise and dynamic range necessary for precision measurements. You won't find an instrumentation grade preamp inside the Axim, so we provide it in the jacket.
** Superior A/D: The jacket also contains a high quality A/D converter which is absolutely necessary. The iPAQ has a 16 bit A/D. The IE-35 jacket has a 20 bit A/D.

Can I use the Dell Axim that comes with the IE-35 jacket as a regular PDA (Personal Digital Assistant)?
Yes! Absolutely! The Dell Axim that comes with the IE-35 PAL jacket is a standard Axim PDA product. It comes with all the calendar, contact, note, task and other premium office and productivity software you get when you buy this model Dell Axim at the store. You can use if for your standard "hand office", with all its WiFi and Bluetooth connection connotations, as well as for all the powerful functions of the IE-35. You can even play standard Pocket PC games between meetings or measurement sessions!

How big is the IE-35 software, how many files can I store?
The Dell Axim X51v comes with 256 MB ROM and 64 MB SDRAM. There is interaction between the ROM and SDRAM as you load and use programs, but the storage size is *HUGE* when compared to the 250 KB necessary for the program application and the 18 KB required to store a single measurement. The number of data files you can store is limited only by the available memory of the Axim. If you were using the IE-35 ONLY for acoustic measurements, you could store over 1,800 data measurement files on the Axim with no expansion memory installed. If you need to expand memory, the Axim accommodates standard SD memory expansion cards.

Can I transfer files from the IE-35 to my PC? Then what?
Yes you can. Since the IE-35 is based on a Pocket PC® platform, you can ActiveSync™ your files from the IE-35 right to your hard drive, using the supplied synchronization cradle and cables. It's very easy to do with no other special software. The IE-35 data files are ASCII characters (mainly numbers) which can then be manipulated in numerous spread sheet and other programs.

The IE-35 comes with a basic yet powerful software, "Ivie XLS." It is a template for Microsoft Excel® and allows you to manipulate data for printing in an Excel spread sheet. You can display one or several data sets (curves), present them in multi-color bar graph or line graph format, average them, subtract one from another (differencing), select a "reference curve" and move the other curves up and down for curve fitting, and even show NC contours and do NIC.

Software updates?
Of course! Ivie has issued several no-cost software updates and upgrades for the IE-33 over the past two years. We will continue that policy for both the IE-33 and the IE-35. These updates will add some additional functionality, fix the inevitable bug or two, and enhance some of the existing features. Check the download area on Ivie's web site (www.ivie.com) for the latest version(s).

In addition, Ivie will also make available for purchase some additional software Function Modules which will focus on areas such as time-based measurements (RT-60, etc.), noise control, statistical functions, home theater, intelligibility, etc. Software modules will be announced as they become available.

Can I run the IE-35 software without the jacket?
Yes, with limitations. Without the PAL jacket, all recall functions are available. The Axim without jacket will allow you to open the IE-35 software, but only "viewing functions" are available. These would include being able to review data that you have already taken, load data from memory into the IE-35, transfer data from the Axim to your PC, etc. Any functions that require collection of data with the microphone or line inputs will not be available.

How long will the batteries last?
That's a good question, and a hard one to answer! Of course, all this depends on how "continuous" the use, and how bright the screen. Using the high capacity , 2200 mAH battery, you can expect about 3 to 3.5 hours continuous, full-brightness use between charges..

Of course, battery life varies with individual use patterns.

If I don't charge the Axim and the batteries go "flat," will I lose any data?

No. *Hallelujah!* Forgive the enthusiasm . . . one of the weaknesses of the 2003 OS/PDA designs was that you would lose data and programs if the battery was not very regularly recharged. <u>The Windows Mobile 2005 and the Axim X51v work in a new way to protect your programs and data even if the battery goes flat!</u>

Will the included Axim X51v accept "standard" Dell and 3rd party accessories?
Absolutely! These days there are any number of 3rd party accessories out there for PDA's with SD and/or CF card interfaces. The Dell Axim is one of the few PDAs to have BOTH an SDIO and a CFIO. So the list of third party accessories that you can use is a long one!

Can I use a different mic of my choice?
Yes. The IE-35 PAL jacket has a standard lo-Z balanced input. A Switchcraft "Tiny QG" TA4F connector is required to mate with the IE-35 PAL jacket. These can be purchased from Ivie and are readily available elsewhere.

Will the IE-35 "Phantom Power" a microphone?
No. The IE-35 PAL jacket does not provide "Phantom Power™" for microphones. One of the four pins in the QG connector provides 9 or 12 VDC power, but is not in the Phantom Power format. The 9 or 12 volt power is designed for the included IE-35M microphone, or the Ivie IE-2P power supply for the Ivie Type I measurement microphone capsules.

What is the format of the files that I save and transfer to my PC?
The files that are saved on the IE-35 and transferred to the PC are in ASCII character, tab delimited format. Essentially, the IE-35 files consist of a column of frequency identifiers that is 2048 lines long, with a corresponding column of SPL or amplitude numbers.   Ivie spectrum data files have an ".ivi" extension, and Strip Chart files have a ".cha" file extension. You can also view the data in these files with any common ASCII text editor.

Where can I get more information about the IE-35?
Take a look at our downloads page (start with www.ivie.com), email us at ie-33@ivie.com or call 801-766-7600.