sorting results"), and you're ready to go to work. If you run into trouble, *FormBase*'s multifaceted help system (it can be a little overwhelming at first) is only a keystroke or mouse click away.

Completely unique in its approach to organizing data, *FormBase* does not require that you specify data types or field lengths. All fields default to text, but you can specify number, date/time, and two types of image fields. In a most welcome change from one of the biggest problems plaguing the few other databases that don't require fields lengths to be specified, resultant file lengths can be **shorter** than corresponding files in more rigidly structured programs. A simple *dBase* file that occupied 73 kilobytes of space needed about 107K when imported to *FormBase*, but quite a few records could be added without expanding the file any further. On the other hand, a *dBase* file that included a long memo field and occupied 163K of disk needed only 98K in *FormBase*, and **still** left room for additional records to be added before it grew! The limit on size of an entry in any field is "about six thousand characters".

You define databases by setting up an on-screen layout that presents information in whatever way you'd like it to appear, and *FormBase* does all the housekeeping required to create the database structure for you. Each database can contain multiple "views" of the same data, among which you choose (from a menu that pops up) when you load the database. Relational abilities, such as displaying three children's names for each employee record, are so easy to implement that the question of training in how to establish relationships is all but eliminated. Again, simply clicking on the appropriate spaces in dialog boxes that are called up with a couple of mouse clicks is all there is to it. Whether data resides in the current database or another is almost immaterial; setting up relationships is equally easy in either case.

In using *FormBase*, you choose between "drawing" and "typing". The latter restricts you to data entry, while the former also allows you to modify form layout. Moving objects in your layouts is as simple as point, click, and drag, while resizing them is similarly easy but is one of the areas requiring use of the right side mouse button. You can password protect databases securely, and views can be similarly protected against editing, as can individual fields by making a "no-edit" attribute choice. Color control is such that drawing users' eyes to a particular area of the screen by applying highlights is simple. Printing what you see can be limited to form only, data only, both, or to a simple non-font-dependent "report" layout. Print area size is calculated automatically, with an option for manual override. *FormBase* can check data for validity before you are allowed to enter it.

Data retrieval is as easy as data entry. Using what is essentially a user-defined query-by-example (QBE) format, you locate information by typing the appropriate information into the field(s) that you want to query by. For example, to find all people who live in "Parsippany", you just type that town's name into the "city" field on screen. Multiple "and" criteria are specified by filling in more than one field, and "or" queries are processed by touching "PgDn", and filling in the same field on multiple forms. Relational operators >, <, =, !=(not equal), and ::(falling within a range of values) are also supported.

We take exception to the printer and font support in *FormBase*. Despite a long list of devices supported, Ventura seems to have taken the "if it can emulate HP or Epson, it doesn't warrant support" stance we've railed against in the past. While this is not a problem for printing text or pure graphics, that middle ground known as downloadable fonts is effected. We've gotten Bitstream's *Fontware* to work on our Panasonic laser printer in the past, so we can only fault the installation process. While that was probably written by Bitstream, it surely was done working with specifications provided by Ventura. Customer support was unable to help us with this problem. (An aside: the folks at Automated

Technologies of Lewisville Texas (self-proclaimed *FormBase* experts) tried for several hours to help us with this problem. While they couldn't help us with the problem either, they were instrumental in narrowing the cause of the problem down.)

FormBase also includes an excellent formula editor for calculated fields (see figure), and the ability to create keystroke-and-mouse-activity macros that work, oddly, at the same speed you do. Watching a macro execute is a lesson in just how slow people work. Still in all, *FormBase* may revolutionize database work by starting the migration toward a truly paperless office; it's that good. **If you're going to standardize on *Windows*, buy *FormBase* today**. If not, you ought to take a look at it, because it just may be enough to make you change your mind.

SuperPrint
Zenographics

Windows is good at many things. Printing, particularly with a Hewlett-Packard *LaserJet* or compatible isn't one of them. *SuperPrint* goes a long way to solve that particular problem - a **very** long way. If you use a PCL (Hewlett-Packard **P**rinter **C**ontrol **L**anguage) printer, go buy *SuperPrint*, then come back to read the rest of this article.

OK, now that you're back, here the scoop: *SuperPrint* contains separate elements that act as replacements for *Windows*' *LaserJet* and *PaintJet* printer drivers, and Print Manager, the print spooling device that accompanies *Windows*. In short, the drivers are faster (more so for graphics then text) and better (documents produced on Postscript printers translate more accurately using *SuperPrint*'s drivers), offer extra features such as dithering and multitasking fine tuning and the option of sending multi-page documents to the printer in reverse order, and the spooler is much faster then Print Manager. *SuperPrint* has to live with one handicap imposed by *Windows*: as with Print Manager, only *Windows* applications are supported.

How much faster is *SuperPrint*? On a complex test document containing a mixture of text, line characters, and bitmap graphics, an unadorned Print Manager handled and printed in between 2.7 and 3 minutes(nearly all of which was downtime as the HPPCL.DRV driver fed information to the spooler), while *SuperPrint* freed the keyboard in under four seconds and displayed marginally better print times. By indicating to