



# How to Know

## When You Need Professional Data Entry Software

*Microsoft Access, Word, Excel...these software packages can inadvertently steal your time and accuracy. For small amounts of data these systems may work just fine. as will a module provided with your imaging or recognition system, or a self-written database front end. But these kinds of programs may be hurting your production and costing you money.*

Once you reach higher volumes, it makes sense to take advantage of professional quality data entry software in order to start saving hours.

Data entry software is designed specifically to speed the data entry process. Windows-based software, on the other hand, is designed to be intuitive and easy for casual users. The average operator entering data with MS Access, for example, achieves only about 1,500 keystrokes per hour. Why so slow? Think about how much time is lost when you take your hand off the keyboard to use the mouse.

Professional data entry software uses specialized technology and dozens of time-proven techniques to make keying faster. As a result, professional data entry operators average keying speeds of 11,600 keystrokes per hour. That's a 9 to 1 productivity improvement.

Clearly, there is a point when you need specialized data entry software. But how do you know when to move up?

Here are some criteria to help you with your decision...

### **How much time does your company spend entering data?**

There are many ways of measuring how much data is entered, like the number of records or the number of keystrokes. But the most relevant statistic is how much time it takes to key in data. Since time is the measure that translates most directly into how much it costs to enter data and allows you to calculate how quickly data entry software will pay for itself, time is the indicator you should track.

### **Let's walk through return on investment based on time...**

Professional data entry software tends to run about \$1000 per user. If we assume that your fully loaded

labor costs are about \$20 per hour, we divide \$20 into \$1000 to discover that you must reduce your data entry time by 50 hours per operator to save enough money to pay for the software ( $\$1000 \div \$20 \div \text{Hour} = 50 \text{ hours}$ ).

We can reasonably estimate that you will get a 30% productivity increase from data entry software. So we divide 30% into 50 hours to find that you will need 167 hours of keying to recoup the software cost ( $50 \text{ hours} \div 30\% = 167 \text{ hours}$ ).

If you have people spending an hour a day keying in data and correcting keying errors, a data entry system will pay for itself in less than a year ( $167 \text{ hours} \div 20 \text{ hours a month} = 8.4 \text{ months}$ ). If your employees are keying 2.5 hours a day, you'll have 100% return on investment sooner – in about three months ( $167 \text{ hours} \div 50 \text{ hours a month} = 3.3 \text{ months}$ ).

### **How much do you pay your employees?**

For most companies, labor costs vastly exceed the cost of data entry software. This is particularly true if you are in a high cost labor market or have highly paid employees who spend part of their day entering data. Paying an engineer or physician assistant to enter data is a costly approach.

For example, if you are paying one person who enters data \$35,000 to \$40,000 a year (including benefits and taxes), and you achieve only a 5% gain in productivity you can save \$2000 per year and have 100% ROI in 6 months. This is enough to pay for professional data entry software. Most companies see much higher productivity gains than 5%, so the software becomes easier to justify. And these savings continue year after year. At the end of 5 years with this example you spent \$1,000 and saved \$9,000.

Don't forget to factor in the labor costs of setting up and maintaining data entry applications. If you are

using highly paid programmers, you may find that you can free them up for other projects when you get data entry software. Some packages are so easy to use that operators can set up new jobs and maintain the system without much support from IT professionals at all.

### **How important is accuracy?**

The more important accuracy is to your project, the more seriously you should look at professional data entry software. In addition to increased productivity, a major benefit is error reduction and higher accuracy.

If your data is text that will be read but not processed further, then errors may not be important. Readers can get the meaning from context. However, if you will be using the data in other applications, like statistics calculation, healthcare records or anything to do with money, the old “garbage in, garbage out” rule applies. You need to consider the impact of errors: Reprocessing costs, unhappy customers, lost business, etc.

You also need to look at how much it costs your organization to correct errors. Usually, it is almost free if you catch an error at the time the finger is on the key and the eye is on the information. It may cost \$20-\$100 to correct one character after it has been keyed if you have to search out the original documents and create updates. It is even more costly when bad data has been propagated throughout a database or has to be corrected in more than one place. And don't forget the intangible costs associated with compliance issues, taxpayer satisfaction, lost business, or customer loyalty.

How can professional data entry software increase data accuracy? These systems incorporate error detection at three levels: character level, field level, and record level. They also provide double-key verify capability, along with many other methods of catching errors at the moment. Here is a short description of each.

### ***Character Level Validations***

Character sieves disallow certain characters, (e.g., no letters are permitted in numeric fields). Good systems will provide a variety of character sieves. These must be instantaneous so they do not slow down the user.

### ***Field Level Validations***

Field edits help detect errors when the field is completed. Some examples are range checks, date validations, database look-ups, multi-field calculations and comparisons (e.g., only cars from Creek county can have a tag number that starts with CK). Professional quality systems allow you to do most, if not all, of your field edits without having to write program code.

### ***Record Level Validations***

Some errors cannot be detected until all data for a transaction has been entered. These validations must be essentially instantaneous or productivity speed is impaired (e.g., financial data in particular needs “balancing” and crossfoot validations).

### ***Double-Key Verify***

The time-proven method to ensure accuracy of data is to key it twice, preferably by different people, and compare the results. Key-verified data is 99.99% accurate, on average. Professional data entry systems have quick and easy methods for the verify operator to make corrections.

### **Summary**

Take a look at the methods your organization uses for data entry. Run your own labor costs through the calculation given above, and factor in the importance of data accuracy. You should be able to tell if your company can benefit from acquiring professional data entry software. Or turn to a data entry software vendor for assistance with the analysis. You can also take advantage of their experience to obtain additional insights into maximizing data entry productivity gains for your organization.