

White Paper - Why You Need Professional Data Entry Software

Microsoft® Access, Word, Paradox these are among the software packages many companies use to enter information into their computers. For small amounts of data these systems work just fine, as will the standard data entry module that came with your imaging system, or your own homegrown database front end written in Visual Basic.

Once you reach a certain volume, however, it makes sense to take advantage of professional quality data entry software.

Data entry software is designed specifically to speed data entry. Windows-based software, on the other hand, is designed to be intuitive and easy to use. 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 whenever you take your hand off the keyboard to use the mouse.

Professional data entry software uses special technology and dozens of 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.

Obviously there is a time when you need specialized data entry software. But how do you know when to move up?

Here are some questions to ask yourself...

How much data are you entering?

There are lots of ways of measuring how much data you enter, such as the number of records or the number of keystrokes used. But the most relevant statistic is how much time it takes to key in the data. This is because time is the measure that translates most directly into how much it costs to enter the data and allows you to calculate how quickly data entry software will pay for itself.

Let's walk through that calculation...

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 ($\$1000 / \$20/\text{Hour} = 50 \text{ hours}$).

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 ($50 \text{ hours} / 30\% = 167 \text{ hours}$).

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 ($167 \text{ hours} / 20 \text{ hours a month} = 8.4 \text{ months}$). If your employees are keying 2.5 hours a day, you'll reach break-even sooner – in about three months ($167 \text{ hours} / 50 \text{ hours a month} = 3.3 \text{ months}$).

How much do you pay your employees?

For most companies, labor costs overwhelm 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.

For example, if you are paying the people who enter data \$25,000 to \$30,000 a year (including benefits and taxes), and you achieve only a 5% gain in productivity you can save \$1500 per year. 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.

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 systems are so easy to use that operators can set up new jobs and maintain the system.

How important is accuracy?

The more important accuracy is, the more seriously you should look at professional data entry software. In addition to increased productivity, one of the major benefits of data entry software is error reduction.

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 the context. However, if you will be using the data in other applications, 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 it after it has been keyed if you have to go find the original documents and create updates to the data. It is even more costly when the bad data has been propagated throughout the system and has to be corrected in more than one place. And don't forget those intangible costs associated with customer goodwill and lost business.

How does professional data entry software increase data accuracy? Most systems incorporate error detection at three levels: character level, field level, and record level. They also provide double key verify capability.

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

Extensive field edits help you catch errors that can be detected as soon as the field is completed. Some examples are range checks, date validations, database lookups and multi-field calculations. 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 of the data for a transaction has been entered. These validations must be essentially instantaneous or else the user cannot reach his or her potential productive speed. The old mainframe data entry where you hit ENTER and waited and waited and waited... is unacceptable. Financial data in particular needs "balancing" validations.

Double Key Verify

The time-proven method to ensure accuracy of key-entered 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. There is no need to double key verify fields that can be validated by other methods, so this feature must be optional by field.

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.