



VIKING SOFTWARE SOLUTIONS™

A Division of Phoenix Software International®

Systems for data capture and document management

COST EFFECTIVE DATA ENTRY

FROM IMAGES

Organizations with document image systems must do data entry from the scanned images of the documents. In the simplest case, the images need to be indexed for retrieval. In most applications there is a need to lift data from the images to be input to other programs and systems. The cost of this data entry can be excessive if the wrong data entry systems are employed. This often leads to unexpected labor costs that can eat up all the savings of the imaging system. Let's look at the factors involved and see how to avoid excessive costs.

The key to profitable data entry is the data entry software system you select. You must have a system that maximizes the productivity of your data entry operators. Anything less adversely affects your bottom line.

Data entry labor costs overwhelm the software cost. For example, assume your fully burdened labor costs are \$25,000 to \$30,000 per year. When you achieve only a 5% gain in productivity you will save up to \$1,500 per year, which is more than the cost of professional quality data entry software. Most companies see much higher productivity gains than a mere 5%. And these savings go on year, after year, after year!

Yet, every day we hear horror stories about how much more costly it is to key input data from document images than when they keyed from the original paper documents. Why does this happen?

There is also a labor cost to set up and maintain data entry jobs. If this is a time consuming task requiring programmers and other expensive labor, your cost will be excessive. Inability to be able to react quickly to new opportunities can cost your company through loss of business. So it is imperative that your new data entry system provide for quick and easy job setup and maintenance.

Operator Productivity

I am amazed at people who buy the best scanners because they understand the value of efficiency and reliability, but don't buy good data entry software. Avoid using amateur equipment to do a professional job. I often hear, "Why spend money for data entry software when I already have MS Access?", or "I can whip out something with Visual Basic." The problem is that the average productivity rate for professional data entry operators is 11,600 keystrokes per hour. It has been reported that the average operator entering data with Access or standard Windows panels is only about 1,500 keystrokes per hour. This 9 to 1 productivity improvement quickly pays for good data entry software.

Ask yourself these questions. How fast are your operators? Do you even measure keying speed? What is your error rate? What does it cost to find and correct errors? The old saying, "If you can't measure it, you can't fix it" is particularly true of data entry.

Data Accuracy

Inaccurate data is expensive to correct and often causes your customers to take their business elsewhere. A single data error may cost hundreds, and even thousands, of dollars to repair. The intangible costs in good will and customer service due to data errors is huge. This requires a different mind set from the quality control for scanning. If you mess up an image you can just re-scan, no big deal. If you make a data error it may very well be a big deal.

Professional quality data entry software systems offer a full range of data validation and error detection features.

Professional Quality Software

Professional quality data entry software, which has been available for decades, addresses these essential issues of productivity and accuracy. However, the top vendors have continuously enhanced their products to support the latest advances in imaging. You need to search for software that meets your exacting requirements.

Features and Functions

What are some of the features you should look for? And how do those features affect profitability?

- **Technique versus technology.** Profitable keyboard data entry involves using many techniques that have been developed and proven over a long period of time. High tech solutions have less of an impact here. The best systems apply and use many small factors to build substantial increases in productivity.
- **Ergonomics.** Production keyboard data entry uses function keys for specialized features and functions. The whole idea is to minimize hand and finger motion to allow operators to achieve their maximum potential keying speed. It has been proven that the fastest keyers have the best techniques and make the fewest errors.
- **Image manipulation.** Newer data entry systems have features and functionality that let your operators easily manipulate images so that the data can be key entered. Efficient moving, zooming, etc. is done with hot keys and not a mouse. The next image should appear automatically and instantly after the last data item is keyed.
- **Enter vs. Tab.** The big Enter key is under the right hand and is the traditional key typists and data entry operators use to complete fields or lines. The Tab key is needed to advance over data entry

fields to some predetermined field. It is a mystery why Microsoft thinks the Tab key should be used to complete fields.

- **Field navigation.** Look for hot keys to go to the next and previous fields, and to the next and previous images. Moving the hands from the home keys to use a mouse is a significant slow down.
- **Eliminating keystrokes.** Features that automatically populate fields with data reduce keystrokes and increase productivity and accuracy. A special key to duplicate previously keyed data is required.
- **Skipping optional fields.** It should be simple, even automatic, to skip over fields that normally are usually empty.
- **Instant data validation.** Data should be validated as soon as it is entered. Only the right kind of characters should be accepted in a field (e.g., no letters in numeric fields). This validation must be accomplished at the time the key is depressed so errors can be corrected while the eye is on the data and the finger is on the key.
- **Extensive field edits.** Date validations, range checks, table look-ups and calculations are just some of the many edits that can be performed on each field as it is completed. It is crucial to detect errors at the earliest possible time.
- **Error messages.** Errors should lock the keyboard and require the

keyer to acknowledge the error message and correct the error.

- **Double key verify.** The time-proven data entry method to ensure data accuracy is to key the data twice, preferably by different people. This process results in 99.99% accuracy. Good data entry systems make this process simple and fast. Yet it must be optional for those projects where double keying is not desired. Also, it is important that error correction be easy and safe. Verify error detection must be done at the keystroke level.
- **Statistics Reports.** In order to successfully manage the operation you need good reports on operator productivity and errors. The more information you have, the better able you are allocate costs and ensure that jobs are quoted accurately and performed profitably.

In summary, data entry can be far less costly for most companies than it is now. When you use the right tools and time-proven data entry techniques you see significant increases in productivity and accuracy. Professional data entry systems are the key to success for service bureaus.