VIKING SOFTWARE SOLUTIONS™
A Division of Phoenix Software International®
Systems for data capture and document management

CONVERSIONS

WHAT ARE THE ISSUES FOR DATA ENTRY SYSTEMS?

Data entry systems tend to have a long life. When the time comes to change to a different system it is usually a new experience for the staff involved in the project. My objective in this article is to suggest some ways to plan the conversion so it will be as smooth and painless as possible.

Old dedicated data entry systems such as Nixdorf, REI Tartan, Entrex, CMC, Motorola Four-Phase, Pertec, Honeywell, CADE, Mohawk, IBM 3741, and others are being replaced because they are becoming unreliable, difficult to maintain and extremely expensive to repair and operate.

Goals and Objectives

The first step is to determine the goals and objectives of the project. Some of the questions to ask are:

- When can we start?
- When does the conversion need to be complete?
- What needs to be improved and changed?
- Do we want the new system to closely resemble the old one, or do we want to re-engineer the jobs to maximize productivity?

Information Gathering

Once goals and objectives have been established and approved, you need to gather the appropriate information.

You need to identify each data entry job and determine if it is to be converted or if it is obsolete or redundant. For each job you should count the number of screens and classify them as being simple, complex or duplicate.

You will also need to gather the keying instructions, output formats, sample source documents and editing criteria for each field.

Estimate Time Requirements

Once all the information has been gathered and tabulated, you can estimate the time to convert screens to the new system. Develop estimates for the three categories of screens: simple, complex and duplicates.

You can then estimate the time to convert the screen formats by multiplying the various estimates by the number of screens in each category. Automated and semi-automated conversion tools can sometimes be used to expedite this process.

Next, estimate the time to add the proper data edits and validations. This will depend on the editing and validation facilities of the new data entry system.

Finally, make estimates of the time to create the necessary documentation for the new system. It is important to do the documentation at the same time the conversion is taking place or else the odds are very good that it will never be completed. Good documentation will pay for itself in reduced training time, reduced errors and reduced administrative and supervisory time. Remember, time is money!

Once the estimates are complete you can determine how many people will be required to complete the conversion within the time frame specified in your goals and objectives.

At this time you can factor in the cost to re-engineer some or all of the jobs to achieve improved productivity. A small percentage decrease in data entry costs will continue to accrue year after year and is usually well worth the initial cost.

Team Members

The conversion team should consist of the appropriate people from the data entry group, the systems and programming group and your vendors and professional services suppliers. Different skills are needed for different aspects of the project. Availability of the appropriate people will be key to meeting the schedule.

Training

Training may be required for the development staff and the data entry operators. Training may be provided by simply reading manuals, by using internal trainers, or from your data entry software vendor. In most cases a combination of these sources will be the optimal solution.

The amount of training often depends on the schedule. If it is tight you may want early training for

your developers to jump-start the conversion process.

Operator training is usually done in-house by the developers and supervisors. It should not take more than a couple of hours.

In-House vs. Out-Source

The decision to use internal staff for the conversion or to out-source the work depends on many factors. Your organization's policy and culture in this regard is the principal factor.

Availability of staff is another issue. Often internal staff is limited or not available in the desired time frame.

Out-sourcing to the software vendor will usually result in a quicker conversion because of their expertise and experience. When you include fully burdened costs for internal staff the actual cost will probably be about the same.

An advantage of the in-house approach is that you then have the expertise to maintain your system in the future. Of course, that assumes that the staff that does the work will be available in the future.

Operator Productivity

If you have made a wise selection of the data entry software system you should expect that overall productivity will be at least as good as your present system. If you are able to take advantage of faster systems with newer features and technology then your operators should become more productive.

People who key data all day long are very sensitive to the keyboard. A slight change in the touch and feel will be noticed by your fastest operators. There is a definite adjustment period that you should plan for.

Productivity will follow the traditional S-shaped learning curve. When you first switch over to the new system the operators will be slower at first. As they become familiar with the new system they will gradually return to the same, or even a higher, speed. This learning curve effect can take a few days to a couple of months.

You can expect initial resistance to the new system if the old system was satisfactory. This is human nature: we are all resistant to change. Some people adapt more quickly than others do. Psychological factors have a lot to do with the learning curve.

If operators approach the new system with a positive attitude, things will progress faster and smoother. It is important to prepare them for the change and show them how the new system is going to be better. Make it a fun challenge rather than something "they" have mandated from on high. Involve them in the process and solicit their opinions on how to improve jobs. Operators who feel an "ownership" in the new system adapt readily and happily.

Ongoing Maintenance

Someone on your staff should learn to set up new data entry jobs and make modifications to existing jobs in the future. It is not good to be at the mercy of a vendor or outside consultant for every little change that you need.

It has often been said that "change is the only constant in life." This is certainly true of data entry jobs. I am always amazed at the number of organizations who tell me they have not made any changes or improvements in years because they no longer have anyone who knows how to do it.

Preparing for Key-from-Image

Document imaging is becoming a mainstream technology. Even if you have no plans for imaging today, the odds are very good that you will be looking at imaging projects in the foreseeable future.

Data entry from document images is slightly faster than keying from paper documents. Plan ahead, the best data entry software systems allow you to easily migrate to key-from-images. There are things you can do when you convert your data entry jobs that will prepare you for the future. Investigate this with your software vendor.

Viking Software's Conversion Experience

The staff at Viking Software Solutions has assisted in the conversion of the following systems:

CADE	KeyMaster	REI Tartan
Data 100	LifeWorks	S1DES
DPS	MDS	Series 1
Entrex	Mohawk	Sovereign
Four-Phase	Nixdorf	

If you have any questions about any of these conversions or automated conversion tools, please contact us at: sales@vikingsoft.com
(918) 491-6144