

# ASP Data Entry

Data comes into an organization in many forms. Although more and more information is available electronically, the reality is that most of it comes on paper documents or faxes and is not immediately computer-readable. This data must be converted into computer-readable format before it can be used in the appropriate computer systems.

The sooner the data is available electronically, the more use can be made of it, so it is usually desirable to capture the data wherever it first comes into the organization. For many companies, data first enters in the field or in an office or department geographically distant from headquarters. However, large volumes of data are most efficiently keyed by a centralized data entry department.

Organizations typically solve this problem in one of several ways:

- Batch the documents and ship them to another location for keying;
- Scan the documents and transmit the images to another location for indexing and retrieval;
- Key locally by knowledge workers or other non-professional keyers;
- Make do with business processes that do not require the data in electronic format.

None of these solutions are optimal.

Batching the documents and sending the paper forms for keying delays the availability of the data and risks having the papers lost or damaged in transit. If the data entry is outsourced, confidentiality and control over the data become issues.

Transmitting document images to remote locations for data capture is faster than shipping documents but usually requires expensive high speed data lines. This is an inefficient use of bandwidth because that capacity is used only in bursts during the day.

Another approach is to key the data locally. Typically, knowledge workers or administrative personnel will key it in. They won't usually key as quickly or accurately as professional operators will, but their familiarity with the data helps prevent transcription errors and saves time if they add codes or other information.

In this situation, many organizations have information keyed online directly into mainframe systems. Again, expensive high-speed data communications lines are required to link remote data capture stations to the mainframe. Mainframe data entry systems are often unavailable at certain hours of the day and may not be as fast or efficient as off-line data entry systems.

Making do without the data in electronic format means the organization cannot take advantage of Electronic Resource Planning (ERP), Customer Relationship Management (CRM) or other enterprise systems.

To be competitive today, all of an organization's important information must be available electronically. The faster the data is available, the more useful it is and the more of a competitive advantage is gained by using it. The data must also have a high degree of accuracy, as "bet-the-business" decisions may be based on it.

Our goals must be to:

- Have necessary information keyed in from documents as soon as possible after they enter the organization;
- Make the resulting data available for use as quickly as possible;
- Make the data as accurate as possible.

The new technology of the ASP model provides a way to accomplish these goals. Data can be performed wherever it is most convenient. All that is needed is a computer with a connection to the Internet. Professional data entry software is used to increase the accuracy and speed of data entry, regardless of who is keying. The data is retained on a central server, making it available quickly and keeping the data under the organization's control at all times.

## **I. What is ASP Data Entry?**

ASP Data Entry is the process of entering data into a computer system from remote locations. Specialized data entry software is used to increase productivity, decrease costs and improve data accuracy. The Application Service Provider (ASP) technology is used to link the remote workstations into a central data repository. The new technology of ASP Data Entry allows organizations to take advantage of data entry software while entering data wherever it is most convenient.

## **II. What is Data Entry Software?**

Specialized data entry software such as Viking's ImagEntry or VDE+Images allows data to be entered faster and more accurately than using Windows dialog boxes or systems that are directly connected to a mainframe system.

Today's interactive systems are designed for intuitive ease-of-use by users who do not have to enter a lot of data quickly and accurately. They are not designed for rapid keying, as anyone who has tried to fill out a form that requires constant switching between a keyboard and a mouse can testify. They are particularly poorly suited for entering large amounts of repetitive data.

Specialized data entry systems designed for professional data entry personnel offer significant improvements in productivity and accuracy. They incorporate dozens of features designed to make keying faster. They also build in edits and validations that

check the data entered and test it for accuracy. Immediate feedback when information is entered incorrectly allows it to be fixed quickly, when it is least expensive to do so.

Data entry software can be used as a front end for many types of applications. It can also replace slower keying modules, such as the indexing module that comes with most imaging systems.

Data entry software is usually easy to integrate with virtually any kind of application that requires extensive keying. It is also typically very easy for operators and knowledge workers to use, requiring little training to get up to speed.

**Typical uses for data entry software include:**

Insurance Claims

Credit Applications

Personnel Records and Change Notices

Accounts Payables

Accounts Receivables

Payroll Information

Survey Forms

Tax Forms

License Applications

### **III. Benefits of Remote Data Entry Using an ASP**

#### **A. Save money**

Typical ASP users estimate 30-40% savings over traditional implementations, when the Total Cost of Ownership (TCO) is considered. TCO takes into account the full cost of using a software application. In addition to the price of the software, it includes software implementation, training and maintenance costs; the cost of the hardware, networking and other infrastructure required to run the software; and the fully loaded cost of the IT staff needed to implement, maintain and support the application.

These expenses are lower for ASP implementations because the ASP can spread out many of these costs across multiple users. In addition, implementations are faster and easier because standard hardware and software configurations are used. Savings also accrue from being able to use older PCs, Macs and laptops as workstations.

Beyond cost savings, there are other financial benefits to the ASP model:

- The up-front capital investment in hardware, software and other infrastructure is eliminated when renting from an ASP.
- The rental model matches costs more closely with the associated revenues. This is an important cash flow and budgeting consideration.

- It is no longer necessary to invest in excess capacity to handle overflow workloads. Usage can be scaled up or down as needed. Outsourcing also becomes an option for more organizations.
- Having a predictable monthly IT expense makes budgeting easier.

### **B. IT Benefits**

The ASP model relieves the organization's IT staff from the burden of implementing, maintaining and supporting the data entry software application and associated hardware.

The organization doesn't have to wait for availability of IT staff to schedule implementation. The ASP company and the data entry software company can provide professional services and support to augment the already overburdened internal IT staffs.

### **C. Expand work force options**

The ASP remote data entry technology enables the organization to explore new and different methods of staffing. Home workers, such as mothers who want to work from home and perhaps only part-time, add an untapped and high quality source to the labor pool. Physically disabled persons, both permanent and temporary, can also be a very good labor source.

In addition to improving the quality of the data entry work force, using home workers saves the cost of the infrastructure to house them: office space, furniture, etc.

ASPs also make it easier to implement telecommuting, which may include persons who work part-time in the office and part-time at home. Telecommuting is a benefit highly valued by many employees and one that benefits the community because it eases traffic congestion. The ASP's centralized performance statistics make it easier to monitor performance and manage telecommuters.

ASP Data Entry makes outsourcing a viable option for more organizations. The data entry providers may be domestic companies, individuals or firms located in low labor cost countries overseas. Outsourcing to locations in other time zones can improve the timeliness of data preparation because the work can be done at times when the organization's offices are closed. In the USA it is very difficult to staff the second and third shifts with qualified persons.

### **D. More control over outsourcing**

The ASP model allows the organization to employ multiple data capture companies or to easily switch providers if the service or cost is unsatisfactory. It also makes it practical to only outsource a portion of the work in order to speed completion or to handle overflow situations.

With ASP Data Entry, the organization maintains control over the data. All data resides on a central server no matter who keys it. Since data is kept in-house, keyed results are available faster. In addition, the central data repository allows better monitoring capability. Performance statistics are centralized and are available faster.

### **E. Faster, easier roll out of upgrades and changes**

Changes to the data entry form setups, validations, edits and etc. are quickly rolled out to all users because it is all contained in one place. Changes appear instantaneously to all users. This eliminates problems with some sites or some operators using the wrong versions. The data entry setup can be done from a central location, or it can be delegated to remote sites.

### **F. Faster time to market**

Events happen at Internet speed today. With the ASP model you can start tomorrow: there is no need to wait for hardware and installation. Project momentum can be maintained and important deadlines met.

You can improve your data entry procedures to speed data entry and increase accuracy without taking IT staff time or budget away from other projects.

### **G. Easily scalable**

The ASP rental model lets you upgrade hardware and/or software with just a phone call. There is no need to waste time negotiating a license for additional seats and installing the software. There is also no delay when you need to expand your server capacity. You can easily scale your use of the software up and down as needed. This lets you tie your costs directly to your revenues and workload volumes.

This is a particularly important feature for service bureaus, which need to quickly ramp up and down in order to meet client demands. Cash flow is greatly improved because costs more closely match revenues. They can offer new services and/or expand services without high up-front investment in hardware, software, other equipment, staff and office space.

## **IV. Specific Industry Examples**

The best way to illustrate the way ASP Data Entry can improve the work processes and bring the above-described benefits to a company is to look at some specific examples:

### **A. Insurance firm**

An insurance company with over 500 offices located across North America can have new policy information entered where the policy is sold, instead of having paper forms mailed in to a central location and keyed in by the data entry group. When the information is keyed locally, it is available faster and should have a higher degree of accuracy since the person who filled out the form is likely to be doing the keying. With ASP Data Entry features, someone who is not a professional data entry operator can still key information quickly and accurately.

### **B. Construction business**

A construction company with hundreds of work crews out each day recently implemented a new ERP system which requires time and materials information to be entered in the field. With ASP Data Entry, the people who do the work can enter data directly into a form on their laptops. That information can be transmitted over the Internet using a wireless connection or uploaded at the end of the day through a traditional phone connection. This provides daily data about the profitability of different jobs, inventory levels and payroll.

### **C. Software company**

A software company does regular direct mail campaigns which allow prospects to respond by phone, fax or with a response card. This information must be keyed into their CRM database and leads forwarded to the appropriate sales representative. With ASP Data Entry the leads get to the sales representatives faster, shortening the sales cycle and allowing the reps to reach prospects while the leads are still hot.

### **D. State government**

A state government agency has forms scanned the day they arrive. Data entry is outsourced to a service bureau in the Far East. With the different time zones, the information can be keyed overnight. When government employees arrive at work the next day, the information is already there in the database ready for use.

### **E. Manufacturer**

A large manufacturer with data entry operations in over a dozen areas around the country usually takes several weeks to roll out changes to data entry forms and validations. A technical support representative has to travel around the country, updating forms and setup at each location. With ASP Data Entry, the update can be made once in the central database. Everyone receives the update at the same time, saving time and travel expense.

### **F. Service bureau**

With ASP Data Entry, a service bureau that wants to start offering a new service to customers no longer has to invest up-front in the software, hardware and other equipment. Instead, they can start offering the service immediately on a small scale and ramp up quickly as they add new customers. The easy scalability ties revenue to costs and reduces risk. It also makes them more responsive to customer needs.

## **V. How Does ASP Data Entry Work?**

### **A. Source documents**

The source documents for the data may exist as paper documents or document images.

#### **Key from Paper (KFP)**

Keying directly from the paper source document is exceedingly efficient using the ASP model. Even relatively low-speed dial-up lines are more than adequate for this purpose. This is ideal for situations where the documents arrive in, or are generated in, a remote office or plant.

### **Key from Image (KFI)**

Keying from images of documents can be faster than keying from the paper documents. Document images allow the keyer to be separated from the original documents, either in the next room, or half way around the world. Remote KFI allows you to take advantage of time zones to improve the turn-around time to enter data. The entire batch of images does not have to be transmitted to the remote location for keying. With the ASP model the keying is interactive. Only snippets of the image are transmitted to the remote location. The data compression of Citrix's Independent Computing Architecture (ICA) technology allows satisfactory response time over relatively slow lines. A 56KB dial-up line will work for most applications, while DSL lines are fast enough to support a number of keyers on the same line.

### **B. Server**

The data entry software resides on a server in a secure data center. Each customer has their own, separate section of the server reserved for their processing. Data entry formats, validations and other set-up information are maintained here.

The person who will be keying the data connects to the Internet and clicks on an icon on their desktop. This opens the data entry application. They then start keying.

Unless they are using a slower dial-up connection to the Internet (which is not recommended), operators should be able to key at least as fast as they can on a normal PC.

The ASP model speeds data entry over the Internet through the use of Citrix MetaFrame. With Citrix, instead of having some processing take place on the client, as is typical, virtually all processing is done on the server. Only mouse clicks and keystrokes (from the user) and screen updates (from the server) travel over the Internet. Since much less information is sent over the Internet connection, the information that is sent can be processed faster.

Then the data that is entered is stored on the central server and is immediately available for further validation or processing.

See also:

Appendix A: ASPs?

Appendix B: Professional Data Entry Software

@ [www.pagebid.com/tools/ASPappendix.asp](http://www.pagebid.com/tools/ASPappendix.asp)

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