

## **Preparing for Paperwork Automation**

By Ben S. Graham Sr.

Preparing for Paperwork Automation sounds like a harmless but rather routine and perhaps technical process. But, how we approach it may increase our profits 50 to 100 % or continue to further stifle progress with the growing burden of paperwork.

What do we mean by Paperwork--by Automation?

### **Paperwork Is?**

Paperwork, as defined by many groups I have worked with, is the recording, storing, analysis and reporting of information, sometimes facts, for only one real reason, to help someone do his job better. This is true whether it is multi-column sheet, by machine or electronically. Ultimately, information has to be presented in the proper form for people to use, to let the janitor know when to clean an area, what material and equipment to use or whether it is to have the information for the board of directors five years from now to help them decide whether to add new products, increase productive capacity, expand sales force or territory or what not. The recording may be by pencil, machine, holes in tape or cards or magnetic impulses, Storing may be on paper, by holes or magnetically. Analysis may be manually on a multi-column sheet, by machine or electronically. Ultimately, information has to be presented in the proper form for people to use.

### **Automation Means!**

Automation means different things to different people. Some claim that the automatic machining of the automobile engine block is not automation because when an operation gets out of limits, the whole machine stops and waits for the people to correct the error. It does not include feedback control which corrects the error and permits continuous operation. Automotive engineers labeled the process "automation" when it was developed. There are varying degrees of mechanization from the machine assists to man, to the highly automatic processes found in the petroleum or chemical industries incorporating many self correcting abilities.

Regardless of the degree of mechanization or self control built in, automation involves automatic production by machines of a product that is worth producing. The last phrase-"a product that is worth producing"-is the key to success in preparing for Paperwork Automation.

### **Paperwork Problems**

For years too many office people have purchased machines to solve their problems in paperwork. They have seen the tremendous progress made in production through mechanization. But they have often not recognized the study that preceded the development of machines to do a necessary production job.

The result has been too much mechanization for the sake of mechanization without first determining the needs.

There are plenty of problems which seem to justify this mechanization. Today many sections of our country are faced with a shortage of clerical personnel. Clerical employment in industry has increased from one clerk to 10 production workers to one clerk to three production workers in the last half century. Last year non-productive paperwork costs equaled 20% of our national product or 80 billion dollars. Value of product per production worker has roughly doubled while the value of product per clerical worker has remained the same.

On the face of it, all of these would seem to point to the need for more mechanization in the paperwork function, particularly when we observe the results in production.

But let's take another look.

There is a company in which the production workers produce \$37,500 of product per worker per year. This is exactly three times as much as the other companies in their industry average. In that same company, each clerical employee handles the paperwork for about \$400,000 of product or about eight times as much as their competitors clerical people. Nationally the average is about \$47,000 of product per clerk and has been the same for many years.

### **Eliminate Waste**

If we will apply the test "a product that is worth producing" or "does it help someone do his job (one that is worth doing) better" to our paperwork, I am convinced we will find that about half, or what is costing 40 billion dollars, will not measure up.

This waste varies from paperwork that is no good to anyone to the systems that cost more than the value derived. In recent years, I have persuaded a number of companies to gather and display all top level reports for critical examination by management. Invariably this discloses duplicate or obsolete reports comprising from 10 to 30% of the total. Reports initiated years ago for a one time use have been perpetuated. Almost invariably duplicate information, systems and reports are discovered being maintained in independent, autonomous divisions or functions of the company. It is not at all uncommon for officers to not recognize reports that have been prepared exclusively for them for years.

Such an examination by management, when followed by action, produces prompt and substantial savings, but it only scratches the surface. A tremendous by-product is the effect on the employees. While obvious waste is tolerated at the top, there is little incentive for workers to save or even be concerned about doing a day's work.

### **Stimulate Interest**

Actually there is far more satisfaction in doing a good day's work than there is in soldiering, if the work is appreciated. When top management eliminates waste, workers will believe their cooperation is really wanted. However, it is still pretty difficult for the credit clerks, checking customers' orders to see if the credit is good, when 90% of the orders come from Sears Roebuck, Montgomery Ward and Western Auto. Any clerk knows he would be fired for rejecting one of those orders. Yet management in that company complained about the burden of paperwork, how government regulations increased the load and how hard it was to get competent clerks. Why should anyone of those credit clerks be concerned about anything except their pay check when management assigned them to a job that was 90% waste? How many of the journals, records and reports at intermediate and lower levels are defensive records maintained to prove that the job was done?

### **Production for Profit**

In preparing for paperwork automation, we must get back to fundamentals. First we must impress many of the highly technical specialists we have developed that in our economy business is operated not as a proving ground for techniques, but to make a profit. Profit is the only foundation for material security which we all would like, and profit only comes from production that is useful to someone and can be sold. Each individual has a responsibility to produce, to help make a profit, to assure his own security and preserve his freedom. When we fail to accept and discharge responsibility, we pay for it by sacrificing freedom.

### **A New Concept**

We must take a new look at our controls. Paperwork controls nothing. Paperwork will provide information to people to help them control material things. People exercise little control over other people, frequently not much over even themselves. But controls properly conceived can be goals--incentives that people will strive to achieve.

Controls should warn of impending disaster so that we can avoid the loss rather than tell us how badly our costs, quality, sales, etc., fared last month.

In cost control, for example, when we plan and schedule production, we determine the labor, machine and material cost. If we meet schedule and have no overtime, our costs will be within limits. The signal that trouble is ahead is a request for overtime. Too much scrap, poor material, excessive machine downtime may be the cause. The request for over-time is the signal to find out why and correct it *before* the damage is done--not after.

Such an approach to all our control functions can eliminate tremendous volumes of detail paperwork that is serving no real purpose.

Recently a large company investigated the cost of collecting shipping charges they had paid on materials received from vendors when the purchase was made on the basis of prepaid charges. They found they had collected two hundred thousand dollars in the previous year but it had cost them two million dollars to collect it. Too much control was wasting \$10 for every dollar saved.

To automate a report the president doesn't recognize because his secretary has been filing it for years; to automate the checking of credit on orders from Sears Roebuck; to automate the tremendous volume of detail distribution in the usual approach to most controls or to pay \$10 to collect \$1, automatically or otherwise, will compound the felony and perpetuate the waste.

Effective automation can only come when we examine and determine our needs.

Frequently to automate means to standardize; molded plastic chairs can be manufactured automatically. Prefabricated house manufacture is highly mechanized, but plastic chairs and prefab houses don't suit everyone and every situation.

Your situation merits its own solution, not regimentation.

First, study your paperwork to get rid of the waste, both systems and due to lack of interest of the people.

Second, determine your equipment or hardware needs.

Third, if economic then install the hardware.

### **Doing It the Hard (Expensive) Way**

Recently the controller of a large company related this experience. The president of the company had visited one of their large manufacturing and research installations, While there, he was shown their research computer, It might as well have been a boiler room with the gauges, lights, bells and whistles. When the president returned home he ordered a computer for the head office.

Talking with the controller, the president asked if the controller had a computer. The answer was no, but a study was being made to see if there was a need. The controller asked the president what was to be done with the computer already ordered. This led to the appointment of a top level committee to study the company systems from beginning to end.

In the past, separate systems departments operated in the accounting, sales and manufacturing divisions, but they could not cross department lines. Now, for the first time, the tremendous duplications are being examined and corrected. Two million dollars, the cost of the computer, will be a bargain for that company if it never operates. Proper systems study should make it the most profitable investment they ever made with a return of one thousand percent, twenty million dollars of waste eliminated.

If that is the only way to break down barriers in a company, penetrate the empires, get rid of the sacred cows, then I am all for it, but it is too bad that we must follow that process so often.

### **The Sound Way**

In preparing for paperwork automation, we must first get the water out of our systems, eliminate the waste, and in doing it make savings equal to or even in excess of our annual profits. The next step is to determine our needs for equipment. Finally, if the equipment is available and can be justified by further savings, install it.

Whether you do it today or not, within the next 10 or 15 years every business must eliminate all the waste possible, stimulate their employees to full productivity and install all the practical automation we can develop to maintain the rate of growth of our economy and standard of living.