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## Forms Management:

PUTTING IT ON THE RAILS AND KEEPING IT THERE

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*What is forms management? Why is it necessary? How can forms management benefit the company's bottom line? Where should it be in the organization? What's involved in setting up a Forms Management Program? Once it's there, can you keep it from being derailed? This paper draws on the author's 30 plus years experience in forms management to address these and other important questions.*

### The importance of forms

Dr Gibbs Myers made a telling statement a number of years ago when he said, "*Forms are a window through which you can look inside a business organisation*".

With all the changes taking place and the exciting things happening with computers and other forms-related technology, it's easy to overlook the fact that forms still play an important part in the day-to-day operations of most organisations. Take away your forms and see how long you can keep going. I predict that most organisations would come to a grinding stop.

I've heard a lot of talk recently that we don't need forms any more. We can do everything 'on the computer' so we don't need people to 'design' forms—at least that's what the computer pundits predict. But these comments fail to address the real issues. They're one sided, concentrating on technology and forgetting that it's the human users that count. Just because the formatted entry of data is on a computer screen it doesn't follow that it isn't a form. I was hearing these same comments 30 years ago and history has shown that they were wrong. The design tools for screen-based forms are more restrictive and the human form-filling behaviour is different to paper forms, but the principles of information design still apply.

When you consider the huge number of errors made on forms and the cost incurred by organisations in correcting those errors, going back to form fillers for more information, or just processing the bad data and suffering the consequences later, the real importance of forms becomes much more visible. For example, how many insurance companies provide cover for customers based on application forms only to find out later that the information was wrong and the person shouldn't have been covered, often to the anger and frustration of the customer. Most of this because the form was badly designed, not because the applicant was fraudulent.

## Some significant milestones and their impact on form design

The events highlighted in ***bold italic*** had major impacts on design techniques

|              |   |
|--------------|---|
| <b>1454</b>  | <b><i>First form letter printed by Gutenberg</i></b><br><i>Method of typesetting for letterpress printing controlled the layout and the use of ruled lines. This promoted the use of form letters and open-ended boxes (because typeset lines never joined at the corners of boxes).</i>  |
| 1600's       | Tabular forms used by British Army  |
| 1806-08      | Carbon paper invented   |
| <b>1870+</b> | <b><i>Industrial revolution leads to more forms in the office</i></b><br><i>Emphasis on treating people as machines led to design techniques such as pigeon-hole design with "upper left corner captions" to reduce hand movements. The factory-based work study techniques overlooked the human mind and communication issues.</i> |
| 1882         | Samuel Moore invents "multipart" forms  |
| 1883         | James Shoup invents "Register Machine"  |
| 1928         | First "Unit Set" produced   |
| <b>1930</b>  | <b><i>80 column punched cards used for data capture</i></b><br><i>Led to the common use of boxed character spaces and "comb" delimiters (character separation marks) reducing legibility and slowing down form reading.</i>   |
| <b>1950</b>  | <b><i>VariTyper introduces mechanical forms composition</i></b><br><i>Difficulties with ruled lines further enhanced the idea that boxes should be open-ended (no right and left hand borders) making some forms difficult to fill out.</i>   |
| 1953         | Remington Rand - first high speed computer forms printer  |
| 1954         | NCR develops "Carbonless Paper"   |
| <b>1980</b>  | <b><i>First major forms research by Patricia Wright in UK</i></b><br><i>Forms research in UK, and later USA and Australia, gave greater understanding of how people work with forms and allows us to design more effective forms and minimise user errors.</i>  |
| 1985+        | Fill & print e-forms by Apple, Adobe, Delrina, Shana, etc.  |
| 1991         | Shana introduces workflow-based e-forms   |
| <b>1995+</b> | <b><i>Internet and HTML forms available to the public</i></b><br><i>Restrictions of early HTML forms, their wide spread proliferation by inexperienced people in the IT industry and lack of effective software has significantly lowered the standard of form design, especially in forms for the general public.</i>              |

I want to take this a little further and look at a typical example of the way modern form design began. Herman Hollerith patented his "Census Machine" in 1890 for the collection of data using punched cards. Hollerith's cards were inspired by the cards used by Jacquard for his automatic loom.

Photographs of Hollerith equipment and other old technology can be found at the *Early Office Machines* web site at <[http://www.officemuseum.com/data\\_processing\\_machines.htm](http://www.officemuseum.com/data_processing_machines.htm)>.

In the 1950's the modern business computer came into existence and I still remember the *Leo II Computer* in use where I worked in 1957. It was a crude machine, doing little more than a modern day calculator and occupying a whole floor of the building. It had its

own special environment with a floating floor and was managed by a new 'breed' of office workers called 'programmers' and 'computer operators'. Hollerith's company, the *Tabulating Machine Co* was later merged with other companies and in 1924 changed its name to *International Business Machines Corp.* (IBM). By the 1960's tabulating machines had become commonplace in large organisations and punched cards had become the heart of the human interface to the new technology.

Figure 1 shows how IBM saw the punched card in the 1960's.

**WHAT THE PUNCHED HOLE WILL DO**

THE **IBM** CARD DEMONSTRATES THE FIRST STEP IN **IBM** ACCOUNTING

- ① It will add itself to something else.
- ② It will subtract itself from something else.
- ③ It will multiply itself by something else.
- ④ It will divide itself into something else.
- ⑤ It will list itself.
- ⑥ It will reproduce itself.
- ⑦ It will classify itself.
- ⑧ It will select itself.
- ⑨ It will print itself on the **IBM** card.
- ⑩ It will produce an automatic balance forward
- ⑪ It will file itself
- ⑫ It will post itself
- ⑬ It will reproduce and print itself on the end of a card.
- ⑭ It will be punched from a pencil mark on the card
- ⑮ It will cause a total to be printed.
- ⑯ It will cause a form to feed to a predetermined position or to be ejected automatically, or to space from one position to another.

|                           |              |                        |          |                  |            |        |  |
|---------------------------|--------------|------------------------|----------|------------------|------------|--------|--|
| 3                         |              | 1412                   |          | S1120            |            | 4      |  |
| DEPT. NO.                 | EMPLOYEE NO. | PART NO.               |          | OPER. NO.        |            |        |  |
| 5                         |              | 2400                   |          | 1200             |            |        |  |
| NUMBER OF PIECES FINISHED |              | PIECE RATE             |          | AMOUNT           |            |        |  |
| 0000                      |              | 0000                   |          | 0000             |            | 0000   |  |
| 1111                      |              | 1111                   |          | 1111             |            | 1111   |  |
| DATE                      | DEPT. NO.    | EMPLOYEE NO.           | PART NO. | OPER. NO.        | PIECE RATE | AMOUNT |  |
| 22                        | 22           | 2222                   | 22       | 22               | 22         | 22     |  |
| 33                        | 33           | 3333                   | C3333    | 33               | 33         | 33     |  |
| 44                        | 44           | 4444                   | D4444    | 44               | 44         | 44     |  |
| 55                        | 55           | 5555                   | E5555    | 55               | 55         | 55     |  |
| 66                        | 66           | 6666                   | F6666    | 66               | 66         | 66     |  |
| 77                        | 77           | 7777                   | G7777    | 77               | 77         | 77     |  |
| 88                        | 88           | 8888                   | S8888    | 88               | 88         | 88     |  |
| 99                        | 99           | 9999                   | T9999    | 99               | 99         | 99     |  |
| 565758596061              |              | 6263646566676869707172 |          | 7374757677787980 |            |        |  |

Figure 1 — IBM punched card

To make sure that the holes were punched correctly, the paper forms from which the data was read were drawn with 80 numbered columns across the page as in Figure 2 on the next page.

| APPL | PROP. No. |   |   |   | SYS | BATCH No. |   |   |    | JOURNAL Voucher No. |    |    |    | PAGE |    |    |
|------|-----------|---|---|---|-----|-----------|---|---|----|---------------------|----|----|----|------|----|----|
| 1    | 2         | 3 | 4 | 5 | 6   | 7         | 8 | 9 | 10 | 11                  | 12 | 13 | 14 | 15   | 16 | 17 |
| G    |           |   |   |   | 1   |           |   |   |    |                     |    |    |    |      |    |    |

  

| LINE No. | CARD | DESCRIPTION | ORGANISATION | ACCOUNT | REFERENCE |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----------|------|-------------|--------------|---------|-----------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|--|--|--|--|--|--|--|--|--|--|--|--|
| 18       | 19   | 20          | 21           | 22      | 23        | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | 32 | 33 | 34 | 35 | 36 | 37 | 38 | 39 | 40 | 41 | 42 | 43 | 44 | 45 | 46 | 47 | 48 | 49 | 50 | 51 | 52 | 53 | 54 | 55 | 56 | 57 | 58 | 59 | 60 | 61 | 62 | 63 | 64 | 65 | 66 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 1    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 2    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 3    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 4    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 5    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 6    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 7    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 0        | 8    | 1           |              |         |           |    |    |    |    |    |    |    |    |    |    |    |    |    |    | 0  | 0  | 0  | 0  |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |    |  |  |  |  |  |  |  |  |  |  |  |  |  |

Figure 2 — A form designed for punched cards

The lesson? Well, programmers started using little boxes and ‘combs’ (small vertical character separators along the bottom of the box) and, even though we no longer have punched cards, we still design forms with these methods. Research in the 1980’s showed that such design, and especially the use of combs, hinders legibility and **slows down** reading—ironic when you consider that computers are supposed to **speed up** office processing. Very pale coloured character separators play an important role in HCR (Handwritten Character Recognition) forms, but they are rarely needed elsewhere.

We must continue to drive forms design with USER NEED, not technology or tradition.

### *The “bottom line” — the real cost of forms*

In 1950 the Hoover Commission reported that printing was only 4.4% of the total cost of business forms. The remaining 95.6% was storage, processing and other related activities.

In 1993 we estimated that printing cost had reduced to between 1% and 2% of the total cost due to advances in printing technology and a rapid rise in the cost of labour for clerical processing.

Today, we find a hidden cost in most organisations, that of error correction. It's commonplace to find 80% to 100% of public use forms wrongly filled out. Unfortunately most organisations fail to realise the enormous burden of these errors; the cost to the public and the cost to the organisation itself in repairing those errors. In organisations such as insurance and finance companies, there is also the hidden burden of collecting bad data and providing insurance or other services to customers who aren't entitled to it or providing an inappropriate product.

Now we have the added burden of management thinking that it can solve all its forms problems by putting them on the Internet. ‘Electronic forms’ have become the latest management fad. As we move further into the twenty first century we need to realise that just turning bad paper forms into electronic forms will not solve the problems, will not make organisations more productive, and will definitely not improve the ‘bottom line’. All that will do is make the problems happen a lot faster. For more information on this, we have a paper on our web site at <<http://www.rbainformationdesign.com.au>> (“*Forms Perspective No. 4 - Don't computerise a bad system and expect things to improve*”).

## **What is *Forms Management*?**

Asking what it is may seem a strange question, but many companies claim to supply *forms management* systems and programs when all they are supplying is *inventory control*. This is way off the mark and for the purpose of this paper the subject is much broader.

On the other hand, many people look on *Forms Management* as just a means of eliminating unnecessary or duplicated forms. They seem to believe that all they have to do to control forms is to conduct a short-term procedure study, cut out the forms that aren't needed, introduce a good stock control system and place an experienced clerk in charge. If this were all it took, forms would not be the problem that they are to business and government. Many organisations have tried this and failed miserably so it is quite clearly not the answer.

*Forms Management* is not just involved with **elimination** of paperwork; it also **creates** forms—forms that are needed by the organisation to conduct its business efficiently—forms that may not have even existed before. This is where standards become a very important part of a forms management program ensuring that new forms are produced using up-to-date methods.

But the best form in the world, designed meticulously to high standards, is useless if it can't be obtained—if there aren't any in stock, or if its construction is so complicated that it will take a year to get it printed. Supply and stock control may not be *all* there is to forms management, but they are still important components.

Some of the forms management functions need to be administered by the Forms Management Department while others will only need to be controlled indirectly by it. We'll discuss this later in the paper.

## The Functions of a Forms Management Program

For the purposes of this discussion, I have broken the functions down into three major categories and I'll deal with each in turn.

### *Analysis and design*

This is the most important function and the one most overlooked. I don't mean that organisations don't have it, but it is regarded as just simple graphic design by many people and the function relegated to untrained (and often low paid) staff. With the increasing interest in *process reengineering* and *forms automation* the type of work undertaken by forms analysts is expanding rapidly. Analysis and design involves at least the following components.

#### **USAGE AND WORKFLOW ANALYSIS**

This has always been an important part of forms analysis work but many organisations have insisted on cutting corners to "save" costs and just haven't carried out this vital activity. But with electronic forms, it can't be avoided unless you want a total disaster. Even at the basic level, usage and workflow analysis will be mandatory for electronic forms. Effective analysis is the most important part of electronic forms development. You can have the best software in the world but if you don't know how the user is to carry out the task, then how can you design effective forms? You can't even begin to add effective intelligence unless you know first what that intelligence has to do.

And a final word on this issue—what is the point of designing electronic forms if you aren't going to make them 'intelligent'? You might save the cost of preprinting stationery, but you will have overlooked the REAL benefit of electronic forms, the vast improvements in productivity and reduction of errors. It is essential for the form designers to get heavily involved in this process.

#### **DESIGN**

All forms need design and it's a waste of time controlling supply if what you design doesn't work. But to make them work, designers need to understand that form design is more than just type and layout. It must not be separated from forms analysis.

I've become more and more concerned at the lack of professionalism in the forms world. Analysts and designers need to become even better at what they do. The more forms are designed by highly skilled forms professionals, then the faster they can be produced and the less end users will have to deal with poor design. My point is that if forms are designed by people who know what they're doing—by people who know how to make them collect data without errors—then less time is spent overall in the design process and rework drops dramatically.

With the need for increased forms analysis as we progress into the realm of electronic forms, we should see a significant increase in professionalism. My concern is that it will concentrate on computer programming rather than the needs of people.

## STANDARDS AND GUIDELINES

This is an important aspect of good forms in a large organisation. *Standards* are those fixed rules that everyone must follow such as how to use the corporate logo. *Guidelines* cover general form design activity such as type to be used, line weights, screen densities, colors, etc. These issues become of extreme importance if you decide to decentralise any of the forms function.

With electronic forms you will need to develop even better and more effective standards and guidelines for designers and form developers. They will have to go beyond just the traditional graphics to include a lot more guidance on how YOUR organisation wants forms to work. Of course, you should be careful not to make the standards too restrictive. Even with paper forms, I've always insisted on having 'guidelines' for most situations rather than rigid 'standards' that inhibit creativity and the effectiveness of the skilled designer. Likewise, with electronic forms, we still have a great deal to learn and we should be careful not to limit the work of our designers with 'standards' based on limited experience.

## TESTING AND EVALUATION

For forms to be truly effective they must be tested. Not that testing will guarantee a form's success, but if carried out effectively, it will give you a high degree of confidence in your design. With the forms of the future—both paper and electronic—testing becomes even more valuable. Already we're seeing an increased demand for 'quality' forms, for forms that minimise errors and filling out time, for forms that REDUCE the burden on the form filler. There has been a lot of emphasis on 'the paperwork burden' for many years, but it has concentrated on reducing sheets of paper and writing space, rather than reducing the form-filling burden. The emphasis is on **reducing** 'paper' while **increasing** the 'work'. This has to stop if we are to truly benefit the community. There is more information on this subject in the paper "*Designing Useable Forms: SUCCESS GUARANTEED*", available on our web site <<http://www.rbainformationdesign.com.au>>.

Many people view testing as just checking the amount of data space or carrying out opinion surveys or focus testing to see if people 'like' the form. But modern scientific testing and useability techniques are far more advanced. Low-cost methods such as **error analysis** and **structured observational studies** find out if the form REALLY works—and if not, WHY people misunderstand how to use it. There isn't the space to go into this here, but I've written extensively on it in other papers available on our company's web site and in a major section of the book, ***Forms For People***, which is available from BFMA. Electronic forms need even more thorough testing and we'll see a significant increase in this activity. I also strongly recommend "***A Practical Guide to Usability Testing***" by Joseph S. Dumas and Janice C. Redish which is available from *Amazon.com*. Although emphasising human computer interface, it is very relevant to forms. Another very useful book is "***User and Task Analysis for Interface Design***" by JoAnn T. Hackos and Janice C. Redish.

I believe this is **the most important part** of good forms analysis and one of the most valuable training tools.

## SPECIFICATION WRITING

While part of supply or procurement, it is closely related to the design and should be carried out by people familiar with the form's function and design. Good specifications are one of the keys to reducing printing errors.

**FORM REVIEW: THE REGULAR CHECK-UP**

This is an extension of analysis and design where you are able to use the form department's experience and skills to enhance forms on a planned basis.

Some public-use forms need to change annually, but most well designed forms can operate for a number of years unless internal procedures and policies change. However even these forms need periodic review to ensure that problems or such procedural changes haven't been overlooked. I've found that most forms only need to be reviewed every 3 to 5 years.

Note that this is not just 'change for the sake of change'. I've seen numerous organisations send out EVERY form EVERY year to all possible users asking if they want to change anything. It sure keeps the form designers in work, but rarely makes the organisation more productive. *Form Review* involves a planned and well thought out strategy to maintain forms standards and to ensure that ALL users, both internal and external, have forms that actually work—that do their job.

Note that 'form review' doesn't mean 'design by committee'. It's a time to get advice from regular users and sponsors/owners, but the actual analysis and design should be carried out by professionals. Of course you always need to keep in mind that the Forms Management Section doesn't 'own' the forms, it is just providing a professional service. To carry this out you need a formal procedure for carrying out the review and agreement from senior management.

Two final points to ensure a successful review program:

- 1) Give reviewers sufficient warning that their input will be needed. Don't demand instant response which might not be forthcoming of people are overloaded with their normal work.
- 2) All for urgent changes between review milestones.

***Supply: GETTING THE FORMS TO THE END USERS***

This is perhaps the most traditional aspect of forms management with many organisations concentrating ONLY on the supply function, leaving the others untouched. *Supply* involves all those activities that are related to making up-to-date forms available to all the users.

**PROCUREMENT**

All forms have to be purchased or else printed in-house, and someone should control the function. In many organisations this will be done by an area separate from the forms department, but there should still be a close working relationship. Irrespective of what normally happens, I have always been a strong advocate of the first print for of a new or significantly changed form being handled by the forms professionals.

**CHECKING PRINTED FORMS**

Obtaining forms doesn't stop when the order is placed. Someone needs to quality check the finished product BEFORE it is distributed to users. This is particularly important with machine-used forms. In a large organisation, it may be best to have a sample pack delivered direct to the forms management department for immediate checking.

**STORAGE, INVENTORY AND DISTRIBUTION**

It has often been said that a bad form that is available is generally far better than a perfect form that is out of stock. This is another area that may be separate to the forms management department, but where there is still the need for a close working relationship.

We're now seeing increased use of 'print on demand' to replace preprinted paper forms. Computers provide a simple way to achieve this and we'll see more and more of this approach over the next decade. While some of this demand is based on sound cost-saving analysis, much of it is simply a shift of cost from one area to another. It gives the appearance of saving costs while just diverting the expense from one bucket to another. Its greatest benefit is for low-usage forms, especially where they have previously been held in stock by a large number of end-users. Instead of printing a supply of forms for each user when they are only needed occasionally, the user can simply print them from the computer as needed.

One of the most significant benefits I've seen in this regard is the use of print on demand by the Australian Navy. Naval vessels, and especially submarines, are away from base for long periods of time and need to carry large quantities of forms. Paper is heavy, so this adds significantly to the vessel's weight. In the case of submarines it also takes up a lot of valuable space. By converting forms to electronic format and then just printing them as needed, a lot of weight and space is saved. By making them fully interactive and using electronic transmission, even the print paper can be saved, reducing weight and space needs even further.

But while there are benefits, there are also pitfalls that you need to be aware of. First, if the volume is high, then it could cost considerably more to print from a laser printer than to preprint the forms using the traditional offset process. Then there is the disadvantage that these forms generally have to be printed with black on white paper. In many cases, this won't be a problem, but the use of color can be an important factor in making forms easy to use and this advantage disappears with 'print on demand'. Of course, you could use a color printer, but for most organisations these are still too expensive and slow. However, the cost of desktop color printers is dropping significantly and they are getting much faster. At the current rate of progress, within the next five years we'll see low-cost desktop machines that work as fast and efficiently as today's black and white laser printers. When this happens, even color will no longer be an issue. The greatest impact of color is with public-use forms and while many people have low cost inkjet printers at home, the cost of color ink cartridges makes the printing of colored forms prohibitive. Our recent experience with government forms is that many members of the public object to having to download forms and print them on their own inkjet printers, even if they are black and white. The public know that all the government is doing is shifting the cost burden to them.

Forms managers need to be alert to the issues of "print on demand", making sure that the user area managers are aware of the pitfalls and only use it when it can really achieve cost savings and improved productivity.

## ***Control***

This function cuts across both supply and forms analysis. While the first two involve practical day-to-day tasks within the department, the control function is the medium by which you can keep all the other matters in check. It generally includes the following functions.

### **NEW DESIGNS AND CHANGES**

These need special procedures. In a small organisation this will be a minor task, but in a large organisation with thousands of forms, it must be controlled or you will have chaos.

In recent years I've seen an increasing demand for instant change and my prediction is that this will only get worse. Twenty years ago, it took hours—and often

days—to get a form changed. Drawing, preparing layouts, typesetting, paste-up and all the other pre-press matters took a lot of time. Today, we can do it so fast that most forms owners have forgotten what it used to be like. The trouble is that since so many things CAN be done instantly, forms users think that designers can do anything at all on demand. They demand; you jump!

We're going to see more of the need to roll out new forms and modifications overnight. Add to this the increasing demand to reduce staffing levels and the problem becomes even worse. We may not like it, but I fear that we may just have to get used to it—or do we? What can we do about it?

One important step is to increase the awareness of the complexity of forms work and the issues surrounding human communication. Forms sponsors and management in general have to come to understand that forms are not just drawings or computer programs. If forms were that simple they'd work—so why do so many people make mistakes? The answer is that forms aren't simple—information design is not 'kid stuff'. Forms analysis and design is a highly skilled profession and management needs to understand this. Once they do understand it, they're more likely to plan ahead and not just leave the forms till the last minute.

Handling new designs and changes for electronic forms shouldn't be much different to the way we do it with paper forms. The main consideration is the impact of those changes on computer systems and programming and, especially, on how we will handle differing versions.

#### **JOB PRODUCTION**

This means keeping track of each job from when it arrives in the department to when the new form or change is fully implemented. It doesn't need to be a complicated system or even controlled on a computer. In the smaller organisation a simple planning control board hung on the wall may be sufficient. There is far less work to control when you have a good review program so that forms are not changed every year.

Job production issues for electronic forms remain much the same as with paper forms, except for the increased work involved with analysis and testing. The main concern is that we allow sufficient time in our production schedules for these functions.

Another key element is the education of IT and other systems people. They need to understand the importance and complexity of good form design so that they can allow sufficient time in their production schedules.

#### **DOCUMENT MANAGEMENT: INCLUDING FORM NUMBERING, INDEXING & CATALOGUING AND VERSION CONTROL**

Here is where so many forms management programs get far too complex and bog down in red tape. A good form numbering and cataloguing system is essential, but it only needs to be simple. A forms management department will have enough on their plate keeping up with producing good forms without having to worry about complex computer systems and their maintenance.

A good form numbering system will be simple, sequential and not including functional codes. Typical form numbering systems start at '1', '0001', 'AA001', etc. and just increase sequentially with each new form. Where there is an old system in place that is different, it is usually an easy matter to change over. I've covered this in more detail in *Managing Business Forms* (available from BFMA).

Document management becomes a more difficult issue with electronic forms, especially where the form is in both paper and electronic formats. You'll probably find that a single form number for both won't suffice. People who are new to electronic forms

often overlook it. Below is a more detailed explanation.

With new versions of paper forms, the form number can often remain the same no matter how great the changes and how often they occur. But with electronic forms you have a new problem to contend with. With normal electronic forms software, the form template or master graphic is a separate computer file to the data file. When the form is sent electronically from one person to another, only the data has to be transmitted together with some tags to tell the recipient's computer where to place it in the form. This keeps the file size small while providing each user with a graphic representation of the form and all the 'intelligence' that makes electronic forms so valuable. All this means that the data and the 'form' are kept separate. (Now you could keep them together, but that would make huge computer files and take a lot of storage space as well as adding significantly to transmission time. Maybe, in the future, when memory and phone line technology has progressed way beyond what we have now, none of this will be a problem. But in the early part of the 21st Century, it is STILL a major difficulty for most forms users.)

So what is the problem? If the data and form are separate, then you have to be sure that the version of the form you are using has the data cells or fields to place the data in. What do you do if the new version of the form doesn't have a cell for an item of data on a form you completed with an earlier version? You will have to know which version was used and have access to it. If you just rely on the same form number with the possible addition of a version number, then you may be in a lot of trouble. Much depends on the software you are using. For example, with Shana's Informed you can allocate a traditional form number to the *Template Name* field, but have a separate *Unique ID* that can remain the same as long as there aren't any troublesome changes. Each change can have its own version number (e.g. 1, 2, 3, 4, etc.) but you can also change the *Unique ID* if there is a major alteration. That way, the standard Form Number can continue to be used while the actual ID of the form file can alter. If you wanted the *Template Name* to be a descriptive title rather than the form number, then this wouldn't work and you would need to change the Form Number every time there was a major change in the form.

I've spent some time on the above issue because it's something that doesn't seem to be a problem to the novice. It's only when you're a year or two down the line that you realise the importance of proper document management and version control.

## Putting a Forms Management Program ON the rails.

### *Who should control Forms Management?*

A major difficulty in starting your program will be deciding who is responsible for what functions. I have often nicknamed the Forms Management Department, *The Empire Busters*. It seems that almost every facet of forms management cuts across some other manager's previous sphere of operation. For many managers the new responsibilities will be a welcome relief, taking away what they considered to be burdensome tasks. For others, however, there may be resentment.

Some years ago I heard of a very large Australian corporation whose senior management rejected a proposal for a forms management program because of the objections raised by a couple of other managers whose control of forms would be taken away from

them. Ironically, many of that corporation's public-use forms are atrocious—I know because I am one of their customers. *Politics* is the **number 1 roadblock** to an effective forms management program.

I don't want to be pedantic on where to place the function. Much depends on the structure of the organisation, how related functions are controlled, the attitudes of senior management and what has gone before. The most positive experience I've had was where forms management, procedures management, business system development, records management and various other functions all came under the same umbrella. One of the problems we face today is that so many of these operations have significant technology components and there is a risk that they will come under the control of someone who believes that EVERYTHING has to be computer-controlled. I have no problem with IT and these other functions all being under the heading of *Information Management* or something similar, but the danger lies in thinking that the day-to-day work has to be done by computer programmers and computer systems analysts. I've seen many forms disasters resulting from design by people with high IT skills but little understanding of human communication.

Other common problem areas are the purchasing department and graphic design, with forms control placed there because management doesn't see the real issues. They fail to see that forms are much more than simple drawings and printing.

Generally speaking, it is also best to keep the function out of other day-to-day operating departments such as accounts and marketing where management tends to give priority to their own forms rather than thinking about the whole organisation. On the other hand, one of the best organisations I ever worked with had their forms control in Marketing because management of that division knew the importance of forms, even realising that better internal forms led to improved overall efficiency, which in turn would benefit the customers.

By far, the best place is in the department that handles procedures development. When I worked for Ampol Petroleum (a large Australian oil company), we had procedures, systems analysis, forms and computer operations all together in the Information Services Group. Now while ISG controlled the computer systems, its focus was the management of information and so included administration of manual systems, forms and even records. But the forms management function was an integral part of procedures. As you get more and more into electronic forms it becomes impossible to separate the two. You **MUST** analyse procedures if you're to produce good electronic forms. At Ampol we didn't distinguish between forms and procedures analysts. Each analyst did both functions.

For more information, see Chapters 4 and 5 of our book *Managing Business Forms*, which cover this in much more detail.

### *Formal statement of policy and responsibilities*

One essential item in establishing a sound program is a formal statement of policy and responsibilities. This policy will state who is responsible for various aspects of the program.

Figure 3 on the next page shows an extract from a typical statement of Policy.

### *Effective implementation — the most important action*

In over thirty years working with business forms, I have seen more failures than successes in forms management. Yet none of these failures should have occurred. In every case, management failed to apply sound, proven principles. There is nothing difficult about forms management and nothing mysterious. Forms experts around the world have been teaching essentially the same principles since the 1940's. I find it interesting that all experienced practitioners agree on most of the major principles.

## Forms Management Policy

### 1. Objective

The objective of the company's Forms Management Program is to provide all departments with essential forms at minimum cost.

### 2. Functions

The Forms Management Department will specify the design of all printed forms used throughout the company, in order to achieve:

- 2.1 Systems compatibility and efficiency in use.
- 2.2 Economy in ordering and procurement.
- 2.3 Prevention of redundant forms.

Accordingly, all requests for new or revised forms/screen layouts will require the approval of the Forms Management Department.

### 3. Responsibilities

3.1 FORMS MANAGEMENT DEPARTMENT will maintain a central activity to provide the following services:

- Review and approval/disapproval of all requests for new or revised forms.
- Design of new forms.
- Redesign of existing forms.
- Assignment of form numbers.
- Determination of the best method of producing forms.
- Preparation of printing specifications.
- Review of printers' proofs.
- Simplification and consolidation of forms.
- Periodic review and elimination of obsolete forms.
- Control of order levels and stocking levels (minimum/maximum) for forms.
- A central record of all company forms.

3.2 STATIONERY STORE will:

- Send all new forms requisitions to the Forms Management Department for approval.
- Notify Forms Management Department and the user departments of all reorders originated.
- Maintain forms stock levels as directed by the Forms Management Department.

3.3 PURCHASING DEPARTMENT will accept requisitions for outside-printed forms only from the Stationery Store.

3.4 REPRODUCTION DEPARTMENT will reproduce only those forms identified by a regular company form number unless specially approved by the Forms Management Department.

Figure 3 – Extract from a typical Forms Management Policy Statement

While implementation is too big a subject to cover in a short paper, here are two very important principles

#### **PLAN THE TASK**

Think about such matters as:

- procedures and forms
- form numbering
- indexing and classification
- personnel, space and equipment requirements
- reporting system
- the actual implementation

#### **TAKE YOUR TIME**

One of the most common difficulties I have seen others encounter is that of rushing into a program, usually to impress senior management that something is actually being done. Management gets twitchy when they invest in high-powered staff (and possibly a forms management consultant) and three months down the line, can't see any results. This is to be expected, but if you jump in without thinking things through you're sure to sink and that will be even worse.

The major reason for careful planning is that if you have never had forms management, there will be a huge workload in the first six to twelve months and you will need a sound administrative structure already in place.

Once the work starts flowing in there won't be time for setting up files, indexes and computerised databases, or designing administrative procedures and forms, or training new staff. This must be done *before* you launch the program—before you officially announce your existence to the organisation.

You might have to bring in some outside help to convince management that this is so, and I've found them supportive provided they trust what they are being told.

## **Keeping your program alive**

Starting a forms management program may take planning and time, but it's a relatively simple process. The hard part is keeping the momentum.

### *Make SERVICE a high priority*

The Forms Management Department is a *service* department—something the Manager and staff must never forget. That doesn't mean “*the sponsor is always right*”. In fact, experience tends to indicate the opposite. But the sponsor doesn't necessarily know that, and the forms are always wanted “*yesterday*”. So, you'll have to come up with a compromise—a compromise in appearance rather than quality. You still have to do your ‘*good works*’ but you might have to break a few of your own *rules* to do it.

Don't be a *forms delayer!* There will be times when you'll let a bad design go through because you don't really have the time to work on it and hopefully you will be able to pick it up later. You just have to weigh up all the pros and cons of redesign. When you are busy, it might not be worth the effort. A quick cosmetic change may be enough, even if it doesn't improve the form's functional operation. Many of the people for whom you design forms have to do their day-to-day work as it lands on their desks and it may be better for them to continue with the form they have than to wait around for the improved version. A bad form that is available is usually better than no form at all.

I once had a rather unpleasant discussion with a course participant who took strong

exception to the suggestion that good forms management meant *breaking the rules occasionally*. My antagonist appeared to be a stickler for red tape, insisting that standards, by their definition, must always be followed. She had never worked in a forms management area (although a few months later she was working as a forms 'expert' for a well known international consulting firm) and could not see the point that when emergencies arise, you have to do something about them if your business is going to stay on the rails.

It's all very well to have rules, but what happens to the profitability of your business or the service to the public when your most critical forms are not available—maybe because someone forgot about an important change or forgot to place an order.

Of course you must have rules, and most of the time they should be followed; but your number one task is to provide the best forms practicable, given the constraints of time, internal politics, facilities and organisational policy.

It's important that the Forms Manager understands the lack of understanding on the part of other managers. It's not necessarily their fault that they don't know what's best and you'll be faced with an education program to slowly win them over. I've found from experience that most (and sometimes all) managers will come to see the value of the program eventually, so you'll just have to be patient and let them be convinced by your *good works*.

### *Don't waste time on trivial matters*

Many of the requests which come into the department will be for minor forms that are not worth spending a great deal of time over.

If the form has a low usage, doesn't take much effort to process, and you can produce a quick redraw in ten minutes on your computer, then I suggest you do what you can to get it out of the way. Don't worry about detailed testing and all sorts of signatures and approvals. Formality is important, but be balanced. ***Don't kill a good system with red tape!***

### *Record your progress*

To keep the program alive you need to let people continually know of your existence. A major part of this is the matter of reporting your progress on a regular basis—and reporting ***conservatively*** and ***honestly***.

Controlling the program means keeping a close watch on all the work that is going through the Department. Make sure records are kept up to date, that every form is entered into a daily log, and that you keep detailed progress statistics on your operations from Day 1. Next, don't forget to report your progress to management—keep them informed—never let them believe that you are redundant.

In the early stages of a program it is a sound practice to prepare written reports on a monthly basis. As you progress, say six to twelve months down the line, you could reduce the frequency to every three months. Later, they might even be cut back to every six months, but never let them stop completely.

The objectives of such reports could be:

- to draw attention to your program and to maintain support
- to inform management of other areas of your achievements
- to create a general awareness of the potential benefits of this type of program
- to convince management of the value of continuing the program.

It is very tempting to gloss over the need for reports in the early pressure-cooker stages of the program, but I can assure you that the results are well worth the effort.

To prepare your reports, you will need to know how much your forms cost to produce

and also have some realistic idea of all the other costs associated with them. Some of the savings are very easy to measure while others are so intangible that you will only be able to make wild guesses. Listed below are some of the areas in which savings will be made.

- reduced printing cost
- lower stock control costs
- reduced error correction
- improved clerical efficiency.

### *Maintain your exposure*

The initial burst of high activity will eventually level off but the interest in forms management should not. During the first year or so there will be a great deal of attention paid to detail, procedures, controls and standards. There will also be much interest shown on the part of other managers—some of that out of plain curiosity, some out of a deep concern to see problems eliminated and some with a desire for revenge. But in time, that interest can subside and the Forms Management Department will be just another cog in the administrative wheel. It is not worth starting a forms management program if you don't intend to keep it going.

In government departments and big corporations, the first areas to go in difficult financial times are those that can be cut without any immediate impact. Forms Management is just such an area; its major forms analysis work can be eliminated and the real impact may not be felt for two to three years or even longer. It all becomes a matter of expediency, often for doubtful political motives. The solution is to not let people forget your existence or your essential, on-going value to the organisation.

When the financial cuts are on, you must be able to prove that your department is the one that can help produce the cuts elsewhere. Take away forms management, and costs elsewhere will increase.

The organisation's staff news can also be a great place to *occasionally* boast about your achievements. Don't overdo it or people will think you are just an egotist trying to expand your empire. But when you have made some significant achievement that has either produced great savings or has had a massive impact on the organisation's image, then make sure everyone knows about it.

Top priority should continue to be given to those areas that present possibilities for greatest savings. But don't forget to spend time on the small items. You won't be able to do everything at once and if your organisation has never had forms management before, everyone will want you to work miracles. So the main thing is to make sure that throughout each year you provide some service to each user area.

### *Be an expert*

An important part of ensuring the ongoing viability of the program is to see that everyone you deal with values your existence. This will generally come naturally as you provide a professional service. But one of the key factors here is to **know your stuff!** One of the points I hammer home in all my form design courses is that the forms analysts must know more about form design than the owners of the forms. This means studying, keeping up to date with latest trends and knowledge, and above all, knowing **WHY** you do what you do. It's no good just telling a user that you "think" a particular idea looks better. If it **IS** better, then explain **why**. Of course, you had better be right. Don't just give a story that sounds plausible but is shot through with ineptitude.

For example, if a user says that he wants the form printed in all bright red ink because

it needs to stand out, then it's no good just saying that "green is better". That's just your opinion versus his. Explain **WHY** red is inappropriate—that small red text is hard to read and has low legibility. If he's still not convinced, explain how red light focuses behind the retina of the eye leading to eyestrain when focussing on small areas. He wants red because he perceives a problem, so you as the expert should provide the answer to his problem. If he wants the form to stand out there are other methods. You could use bright yellow paper, but it can cause nausea and emotional problems if used a great deal. So, what needs to stand out and why? Maybe, if it just needs to be easily locatable in a file, a bright red or other coloured band down the right hand edge of the page will do the job. So the solution is for your forms analysts to be able to determine the REAL problem and then provide acceptable solutions.

If you are new to the game, then you may feel very insecure—especially as you learn more about forms work and realise what a complex area you have entered. Remember that although you may have a lot to learn, the forms users generally don't know as much about forms as you do, so at the very least **ACT CONFIDENTLY!** I don't mean to lie and pretend that you know what you don't, but manner plays an important part in your approach to users.

## Conclusion

I've often been asked to advise on forms management and found that the organisation has already started to implement some of its own ideas in a piecemeal fashion, but I have not found one occasion when this was successful. In some cases all they had done was start to change the form numbering and indexing systems. In others, new procedures were introduced for requesting form design but without any effective administration. In all cases, they had failed to consider the important needs of staffing, facilities and the impact of an ever-increasing workload once the program got off the ground.

Any forms management program needs careful research and planning before even part of it is implemented. Staff selection, facilities and equipment, administrative procedures, indexes and records all need to be soundly in place before the program is launched and publicised.

Forms management does work—but it also fails if done the wrong way. There is rarely a NEED for failure—it just comes about because people don't use the principles that have been proven over so many years.

## Further reading

Articles from the *Communication Research Institute of Australia* can be obtained, see <http://www.communication.org.au/>

Books by Robert Barnett can be purchased from BFMA

<http://www.bfma.org>

or direct from Robert Barnett and Associates (email: [info@rbainformationdesign.com.au](mailto:info@rbainformationdesign.com.au))

Some books mentioned are available from bookstores and on line at

<http://www.amazon.com>

Journals and other publications are generally available from university libraries.

- Managing Business Forms - Robert Barnett, Robert Barnett and Associates Pty Ltd, Canberra 1995
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### **Papers by the author available electronically at** our web site

- Designing Useable Forms: success guaranteed, 2003
- Forms Management for the 21<sup>st</sup> Century, revised 2003
- Forms Bibliography, revised 2003
- Reengineering Business Forms, revised 2002
- How would you know if your forms were failing?, revised 2002
- “We don’t use forms in our company”, 2000
- Solving the ‘thin client’ — ‘thick client’ dilemma, 2002
- Don’t computerise a bad system and expect things to improve, 2002
- The use of signatures on business forms, 2002
- Electronic forms: traps for novices, revised 2002
- The US Ballot paper and its significance for forms analysts, 2000
- Testing electronic forms, 1998
- Making a Forms Management program work, 1997
- Sequential numbering on electronic forms, 1997
- Procedure Manual Systems: choosing an effective writing structure, 1997
- Forms Management Position Descriptions, 1996

## Other Papers and Articles on Forms and Related Subjects

There is a good list of papers on design issues in  
*Designing Useable Forms: success guaranteed*

For a more comprehensive listing see Forms Bibliography

Both are available at <<http://www.rbainformationdesign.com.au>>.

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