



**BEFORE YOU BUY YOUR
NEXT ASSET
INFORMATION SYSTEM**

Some years ago I published on the web in serial form, a chapter at a time, a book by the Founding President of the UK Institute of Asset Management, Norman Eason. The book has never been published as it was written just as Norman retired and at that time he discovered many things more pleasant than slaving over manuscripts. Which is a pity, because I have not seen anyone else address the many issues that Norman does that determine whether the AIS, or the Computerised MMIS, that you choose, will really do what you want it to.

Could a book about AIS and MMS, written 8 years ago, still be relevant today? Yes - if the focus is not so much on the technology but rather on the organisational setting, behaviour and requirements.

This was confirmed for me by John Hunter, Brisbane City Council. John noticed a reference to the book in an archived issue of SAM and asked whether I still had the original, since it was no longer on the website. I sent him the chapters and asked his opinion. His response has encouraged me - with Norman's permission - to re upload and to introduce you here to some of the key features of this book:

While we had covered the 'what' and 'how' aspects of choosing and implementing our AIS, 'up to a point', for us, the real work had to come after the software was implemented and the team disbanded. From the outside looking in, we could see what was wrong and conducted field visits to prepare a report to management who gave us full support and resources to fix it. **Norman's book provides the insights we wish we had had prior to the project commencing.**

Also in this issue: Measuring Quality with the Comparative Assessment Technique, and "Why is it so hard?" (to sell asset management)

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More for Less

Like all asset managers, I have long been a supporter of the notion of 'more for less', but lately I have found myself asking:

More of what?

Less of what

As we progressed down the outsourcing route, we were forced into measuring inputs and outputs - and that has had some very positive results in terms of efficiency. But in the process, we have tended to give short change to those aspects - of both costs *and* benefits - that don't lend themselves to easy measurement.

Take the outsourcing of grounds maintenance at one of the universities. Previously the grounds maintenance crew were always on site and they would help direct lost students and visitors, would accompany females who had to work late to their car, and many other tasks, not strictly of a grounds maintenance nature. When the task was outsourced, only their grounds maintenance work was considered. The other services were lost - not counted. Some were picked up in other ways - like improved signage, and it is unlikely that cost was counted as a cost of outsourcing. But mostly the services were just lost, and the amenity of the University went down - *and was not measured*. Maybe it went down a little, maybe a lot. Maybe the costs were worth it, maybe not. We don't know because we haven't measured it.

"But you can only MANAGE what you can MEASURE!" cry the pundits. And from here it is a short step to 'only those things which are measurable are worth managing' - and, indeed, worth counting. Until now we have been able to measure **quantities** (outputs such as square metres of lawn mowed) - but not **qualities** (amenity such as the pleasure of a well tended garden) But what if we could? Then we could count what for us *really counts!*

Well, we can! In Issue 33 of SAM, available in the SAM Archives, we take the whole issue to describe a very valuable technique for measuring QUALITIES, in a way in which they can be **added, compared and costed!** It is **CAT, the comparative assessment technique**, yet another invention of the author of our key resource this week - Norman Eason. Worth refreshing your memories on - see pp 6-7.

Do consider and enjoy!

Penny

Maintenance and Asset Management Systems - Norman Eason

Introducing the Author



An impossible question to ask today,

but back in the 1970s when Norman Eason was developing an interest in maintenance and computer technology, this was the question posed to him. So he started to develop computer aided maintenance management packages and one of them, Rapier, won a major European award.

Then, in 1995, after some three years of lobbying, he set up the **UK Institute of Asset Management**. I met Norman in 1999 and asked him how it came about that a guy interested in *maintenance* management had set up an *asset management* institute. His response?

"Companies were buying computer maintenance packages without a maintenance strategy and without linking their information requirements to the business. It seemed about time we addressed this issue and, incidentally, raised the profile of maintenance and asset management generally."

A few years later, in a series of conversations held at Heathrow Airport (where else do you catch up nowadays except at airports?) he told me that he had written a book about the problems he had observed as companies introduced maintenance and asset management systems into their organisations - without the necessary preparation - and, importantly, how these problems could be avoided.

As we spoke, I realised that there was much more to the question of choosing an AIS than I had imagined.

In maintenance management, the difference between world class performers and the rest is not dependent upon age of equipment, types of equipment, if a computer is used, vibration analysis, wear particle analysis, infrared analysis, etc. The difference lies in attitudes, commitment, skills and organisation of people... and these cannot be easily copied. You can let people into your world class organisation with a camera, but they cannot take pictures of what you are doing differently because what you do is not visible and not easily seen. Christer Idhammar, Author, 'World Class Maintenance'

Maintenance and Asset Management Systems - Norman Eason

Some excerpts
(now available free, on-line, at www.amqi.com)

“Is any director or executive measured positively by the results of maintenance?”

If this is true, then your organisation has an asset management attitude. It must be remembered, however, that an asset management attitude is not the same as an asset management policy, but is a very important first step.”

The first few chapters distinguish maintenance from asset management and look at the different requirements for information and data if your organisation has a maintenance attitude from its requirements if it has an asset management attitude.

On CULTURE

“Culture, as far as any particular organisation is concerned, is a given; it cannot be changed quickly. It has the inertia of long-established principles, attitudes, methods of working and traditions. It can, however, be changed over time, but the change of a culture is a dangerous activity to pursue at the same time as the implementation of an asset management system, especially if it has not been meticulously planned! Thus the culture of the user organisation is a differentiator with respect to the implementation of an information system. If an organisation’s culture is different from that of an existing user – in the same industry - of a vendor’s package, then it cannot expect to use the system in the same way and achieve the same results.

WARNING

This is a major reason for the failure of maintenance and asset management information systems.” CHAP 4. P 8

FURTHER WARNING

Do not be tempted to change your culture in order to use a vendor’s system. If a change in culture is indeed seen to be appropriate, then seriously investigate the cost and time involved. If corporately agreed, then **IMPLEMENT THE CHANGE IN CULTURE SEPARATELY AND BEFORE THE IMPLEMENTATION (OR THE ORDERING) OF THE INFORMATION SYSTEM.**

How many of us choose a system because it is used somewhere else, or because we (or our boss) had familiarity with it somewhere else?

On VENDORS

Why “one size does not fit all” - so beware of judging your likely success by vendor’s claims from others

From an information systems viewpoint, the maintenance and asset management market is not a *vertical market* - i.e., it is not a market that can be defined in anything like a precise manner. It is more of a *horizontal market* - applicable to almost any industry and commercial enterprise. Therefore, it is not difficult to see that the data and information requirements of maintenance and asset management systems will vary depending on a user’s industry or business.

What is not so obvious is that the data and information requirements will also vary depending on the *culture* of a user organisation. This covers a vast area, including company history, skills transfer, competitiveness, personnel policies, staff relationships and the rigour of management. Clearly, as organisations are affected by so many different factors, it is not possible to provide a common definition of what data and information should be collected for maintenance and asset management. However, the problem does not stop there. Even two organisations in the same industry with similar cultures that implement the same system at the same time are likely to start with different maintenance history. Furthermore, even if they make a clean sweep and start again, then it is unlikely that they will have the same learning and development rates. Thus their requirements for, and use of, data will be different, and will be likely to remain so thereafter.

When you understand how vendor strategies developed you will be better armed to analyse their offerings!

And when you understand the many different elements that go to making a successful decision, procuring it and implementing it - you will understand why things so often go wrong, but be in a position to prevent it happening next time.

The book discusses, amongst other things

- The difference between maintenance and asset management
- Working within your Computer Strategy
- How to ensure the functions you want are the functions you get
- Organisational Culture and Attitudes
- Vendor Strategies - and what to be aware of
- Existing computer systems - whatever you buy is going to have to work with all of your legacy systems (and any changes in them between now and then!)

... and much more

Now available again on line at www.amqi.com - Check the menu at **Resources**

The Comparative Assessment Technique - CAT

CAT– Comparative Assessment Technique is based on the simple, but operationally powerful, idea that any qualitative output can be expressed in terms of its worst state, its best, and all possible states in between. Being able to measure qualitative outcomes/ outputs makes it possible to

- Track developments over time
- Compare outcomes with other organisations
- Relate activities to outcomes
- Relate the cost of activities to the improvement in outcomes

So how is it done?

The CAT concept is simple. It relies on the fact that anything can be described in terms of its worst state, its best state and by as many other possible states between these two.

Suppose we use as an example of intangible factors the difficulty in measuring the Cleanliness of a Reception Area. We could list all the possible states, from worst state to best state, as follows: -

Ladder - Cleanliness of a Reception Area

1. The filthy nature of the area is seriously affecting our relationships with staff/clients.
2. We are always receiving complaints about how filthy the area is.
3. We often receive complaints about how filthy the area is.
4. We have had complaints about how filthy the area is.
5. Although we have not yet received complaints from staff/clients about the dirty condition of the area, we know that this is likely to happen.
6. We feel that as a company we are embarrassed by the dirty condition of the area.
7. We feel that staff/clients believe that the area is very often dirty.
8. We feel that staff/clients believe that the area is usually clean, but is often embarrassingly dirty.
9. We believe that staff/clients think that the area is almost always clean.
10. We believe that staff/clients think that the area is always clean.
11. We never have any problems with the cleanliness of the area.
12. We believe that staff/clients think that the cleanliness of the area is always excellent.
13. We are always receiving favourable remarks from staff/clients about how clean the area is.

No limitation on the number of steps to be used

Note that we have not attempted to limit the number of steps to ten; this would have been the natural tendency, but it is pointless and an artificial irrelevance to the definition of the states. The CAT term for this list is a ladder and each listed state is a step.

Setting Target Step

We can now designate the Target Step that the user and supplier agree should be met. Suppose this is Step 11. "We never have any problems with the cleanliness of the area".

Setting Actual Step

The user and supplier can now select a step that matches the actual position at any one time. This is the Actual Step. Suppose this is selected to be Step 5. "Although we have not yet received complaints from staff/clients about the dirty condition of the area, we know this is likely to happen."

Comparing the Two Steps

We can now obtain a measurement of the actual condition in relation to the target condition. This is given by: Actual Step (5) divided by Target Step (11) giving a current condition measure of 0.45

Creating Numerical Values

Two interesting things become obvious from this calculation

1. We now have a numerical value of something that previously could only be considered in subjective terms.
2. Although we now have a decimal value of the relative position of the actual state against the target state, we did not start with a scale of ten.

Improving Communication Between Client and Contractor

Ladders such as this, especially if developed with joint input, have the potential for far better communication and understanding between client and contractor. It is possible for both to see clearly when a goal has not been achieved (with potential for service improvement) and also when it has been overachieved (with potential for cost savings)

Note:

- Any ladder can be of any length. In fact, the user and the supplier of the service determine the length by incorporating as many steps as are required to fully describe the activity.
- It doesn't matter that the Target Step is not the top step of the ladder. Target Steps can be moved as new goals are agreed. Note also that there need not be equal increments between steps.
- The technique is not restricted to Building Services. Ladders can be used to measure any activity in any one of a number of areas. These areas are not limited to commerce or industry; Local and Central Government are also relevant.
- CAT can be applied to the measurement of anything that is intangible.

Any quality outcome that your clients or community value can be measured, managed and tracked in this way - by you and by them!

See SAM 33 April 2000 in the Archives, www.amqi.com

Why is it so hard?

If you are a consultant, why do you find it so hard to sell the benefits of asset management improvement to your clients in these difficult economic times? If you are an Asset Manager in an organisation, why do you find it hard to get the attention of the key decision makers? Indeed, why do you find it hard to convince your colleagues of the value of better asset management - and, at times, even yourself?

Why is it so hard?

Everyone I speak to has some story to tell of difficulties in 'getting the message across'. **So, in Issue 293 (in one month's time)** I want to see if we can scope the problem. What are the difficulties? Do they fall into readily recognisable categories? Once we have got this far, it may be possible for us - as an interested community - to figure out some answers!

So, here is the challenge!

Print the small mind map below, make yourself a coffee, or take it on the train - and add whatever ideas come to mind - then fax to me at 08 8258 2725 (no cover sheet needed) (Or you can enter direct from the website) If you need more words, then email your ideas (keep them short, 20-50 words best) You will be acknowledged as part of the contributing force but your name will not be attached to any individual idea - to protect your anonymity. **By Wed 9th June 2010**

