AMQ International

Strategic Asset Management

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'Maintenance' or 'Asset Management?'

Knowing whether your organisation takes a maintenance or asset management approach is critical to the success of your information system, and in Chapter 2 of Norm Eason's **"Maintenance and Asset Management Information Systems",** currently being serialised on www.amqi.com , he explains

- The critical differences between Maintenance and Asset Management
- Why maintenance is so often under-resourced
- The role of 'resource managers'
- Maintenance management in relation to the business
- Information requirements of the Asset Manager
- Choosing for System Expansion

Be wary of wish fulfilment! Take Norm's simple test to find out what your organisation really does - and then follow each weekly chapter to see what you can do about it.

A new chapter every week!

But don't delay, each chapter is only on-line for 4 weeks, which means that Chapter 1 will disappear on Dec 4th and Chapter 2 will be gone by Dec 11th.

Go to **www.amqi.com** , become a member of the Virtual Asset Management Community (it's free, it's easy) and you will have access to every chapter as it comes on line. This important book is not yet available in the bookshops. You get it first here..

(For a sneak preview of Chapters 2 & 3, see pp 390-391)

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Chapter 2 "Maintenance and Asset Management"

In this chapter, Norm explains the difference between maintenance and asset management and provides a simple test to determine whether your organisation takes a maintenance or an asset management attitude.

He describes, in general terms, the requirements of both types of information system.

These are the concluding paragraphs of chapter 2.

It will, however, be necessary for some organisations to consider their eventual transfer from a departmental maintenance organisation to that of an asset management organisation. This is a much greater task than merely changing the type of information system. It has strategy, culture and change management implications. Therefore, it is essential that an organisation honestly identifies its current type of maintenance operation before embarking on the procurement of an information system.

If it can accurately be defined as a departmental maintenance operation, then there are three options.

Option 1.

The first of these recognises that the operation will remain a 'departmental maintenance' activity for the foreseeable future, in which case asset management information systems need not be considered.

Option 2.

The second case is when a move to asset management **has been agreed and planned**. In this case, all the other relevant activities, such as strategy definition and change management, will have been put in place, and the objectives and requirements of an asset management information system will have been defined. Thus procurement of an asset management information system to meet current and future requirements should be able to proceed in an organised and professional manner.

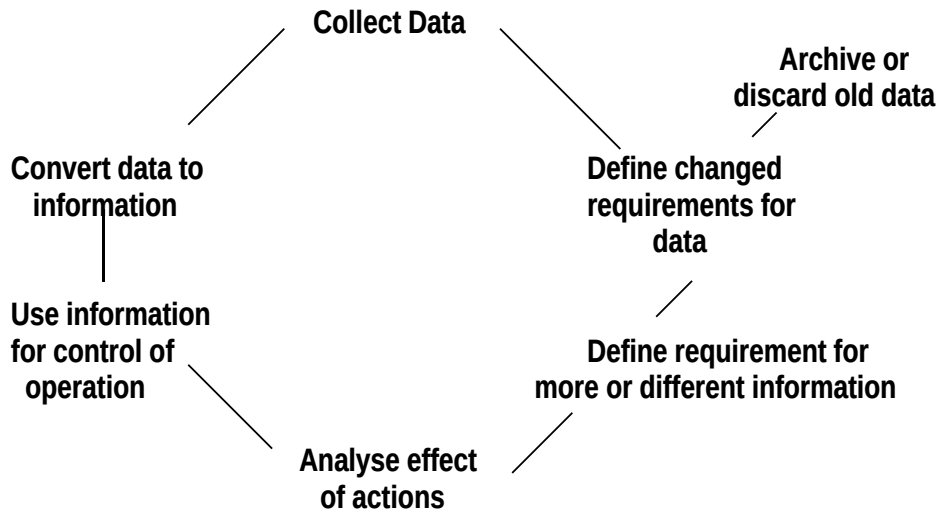
Option 3.

The third and last option is potentially full of risks. This is where an organisation with a current departmental maintenance operation believes that it should have an asset management operation and embarks on the procurement of an asset management information system without having put in place the necessary preparatory and parallel operations of strategy definition, culture management, change management, etc. Unfortunately, this is a very common occurrence, caused by organisations not being honest with themselves and misplaced egos being fed by unprofessional vendors.

Problems encountered by adopting this approach are discussed in Chapters 15 and 17.

And in Chapter 3 "Data and Information".....

The Data and Information Life Cycle



Each chapter finishes with a summary of the key points: Here are some from Chapter 2.

- The **need for nformation** should always be questioned.
- The **quality of information** should always be monitored.
- Consider the **cost and effort** that if took to **justify and implement** the information system.
- Consider the **cost and effort** that it will take to recover from a suspect information situation and regain corporate confidence and respect.
- An **asset manager** is a **resource manager** and a **business manager** with responsibility for **optimising the effectiveness of each asset to the business**.
- The workforce should be made aware of the importance of accurate data and how they personally fit into the picture.
- If data is **wrong, inaccurate or suspect**, it is not worth collecting.
- The quality of data never improves. It can at best remain at the same level at which it was collected.
- The effort and cost of transferring data from an old to a new information system can be extensive and is invariably underestimated.
- If data entry clerks are knowledgeable and well motivated, keyed-in data can have an error rate of 0.5%. Otherwise, error rates can be 10% or greater.
- Validation effectiveness improves the nearer the data entry is to the asset and its work

Last week, in the SAM centenary issue, we looked at the ten key questions that you should ask of any investment proposal. I presented this information at the Australian Local Government Association's Women's Conference in Launceston to an audience of councillors, aldermen and general managers. Here are some of the questions that followed that presentation – and my thoughts on the issues. ***As always, contrary views are very welcome.***

Is your project going off the rails?

What would you advise in the following situation?

> ***Councillor:*** We are not told anything! We recently decided to adopt a new asset information system and I believe that they (the staff) are having some troubles, but no one tells us anything!
> ***Me:*** What do you want to know?
> ***Councillor***: I don't know, what should we be asking for?

A great many projects go off the rails because we fail to make it clear at the very beginning what was really important to us. Most projects have a number of intended outcomes, some of them essential, some of them nice to have. It is not uncommon for projects, especially IT projects, to get so complex that we lose sight of the original objective.

Do you remember the "Yes Minister" episode where the Minister is introduced to the Economist who tells him about "Success and failure criteria"? The idea is that each project should state what it is that, if achieved, would clearly show the project to have been a success. At the same time, each project should clearly state what would have to happen for the project to be considered a complete failure.

If you saw the episode, you will remember that no one wished to adopt the success and failure criteria practice because it held them too accountable. That program often got very close to the bone!

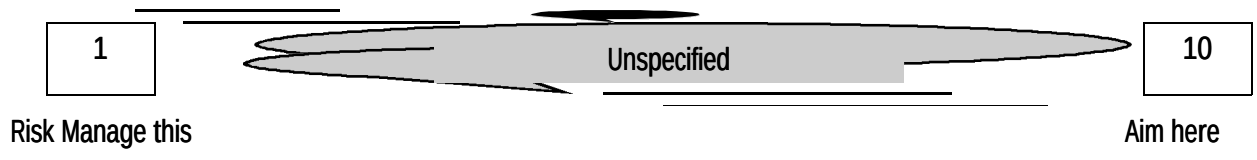
But you can salvage something from this. On a scale of 1 to 10, if 1 is a complete failure and 10 is a complete success, it is worth spelling out <u>what constitutes the end points.</u>

For the AIS, you might say, this project will end up being a great success if it ….
(e.g. if it identifies surplus assets for sale and maintenance savings of, in total, $Xm; or, if it is operational within 18 months, providing priorised maintenance schedules, or,…. *Whatever is important to council)*

At the same time, you might say, this project will be deemed a failure if it … (takes more than 2 years to get up and running, runs over budget by more than 5%, or ……)

In this way, you establish what is to be aimed at (#10) and what is to be risk managed (#1). And now you can ask for progress reports on achievement (whether project is on track, on budget, etc.)

A "Keep it Simple" Success and Failure Scale



There are ALWAYS Options—but how do you choose?

Example: Renewal of Street Trees

Councillor: We have had advice from our horticulturalist that a serious number of our older street trees will need replacement in the next 30 years. I have suggested that we should start planning now for their replacement and put money aside for this purpose, but I am having a hard job getting the other councillors to agree.

***Me*:** What are the options and what criteria will you use to select by? E.G.

Replace Trees

with mature trees
grow from own stock
purchase when needed

with saplings
grow from own stock
purchase when needed

with native bushes

Don't Replace Trees

but replace aesthetic function
e.g. flower hanging baskets on light poles

do nothing

recognise that the older area may be due for urban renewal in about 30 years time and take this into account in future planning

But having spelt out the options, how do you make a selection? Without an established selection criteria methodology, discussion could last many fruitless hours and get nowhere. It is best to determine what is important to the community values and embed them in decision criteria. For example, sustainability at the economic, social and environmental levels. Here are some suggestions. The Community will also have to decide what weights to allot to each.

Selection Criteria—some suggestions

(These should be based on community values—it helps if these are already spelt out in the asset management strategy and/or corporate plan)

Social—Aesthetics; noise control; shade control (c.f. Amory Lovins' arguments that street trees save on airconditioners)
Environmental—Water conservation, water table control (in areas prone to salt damage)
Economic—cost of trees, tree pruning, watering, v. Impact on house and rate values.

Spend time thinking about the selection criteria, before you spend time making your selection. And remember, the rules you set determines who wins the game! (e.g. men will usually win in mixed games of tennis because the rules favour the power server, but women often win where the rules favour lightness and agility)

Depreciation – Don't Ignore it!

Around the country local governments have been reporting operating deficits, some in the tens of millions of dollars. These deficits are largely the result of one expense – the depreciation of infrastructure assets.

However, there is widespread scepticism that the depreciation expense is inaccurate. Anecdotally, some CEO's disregard the depreciation expense entirely.

Depreciation is a critical governance issue, for two reasons.

1. **Integrity and Reliability of Financial Data**

   The certifying of financial statements when the CEO has reason to believe that the figures are inaccurate calls into question the integrity and reliability of all of the financial information supplied. It undermines the relationship between the Council, the CEO and the community. It would also appear to be contrary to most Local Government Acts in Australia as they place a requirement on the CEO to provide reliable and accurate financial information to both the Council and the community.

2. **Importance for Forward Planning**

   The emerging knowledge that most of the infrastructure assets controlled by Councils are ageing and in need of renewal. It is critical that the debate about the condition of infrastructure assets and the timing and funding of their renewal is properly informed, particularly as there is the potential for significant tax increases to be imposed on communities.

   This is a national issue, as local governments around Australia are having difficulty providing good quality financial information to feed into strategic plans, financial plans, asset management strategies and asset management plans.

Help Solve the Problem!

This is part of an ongoing dialogue at **www.amqi.com/forums/**
Financial bodies in Australia are now looking for ways to develop depreciation methodologies that are financially sound and managerially relevant. You can be part of this national development.

David Grugeon, Local Government Department, Queensland

Do the depreciation figures make sense?

I am developing some ideas to assist with depreciation methodologies. The major issue for me, and I suspect for most users, preparers and regulators of accounts for infrastructure entities is whether the depreciation figures make sense.

Figures can be calculated strictly in accordance with the Australian Accounting Standards (Or, anyone else's accounting standards) and yet when you look at them they are obvious nonsense.

If you are maintaining, say, a road network at broadly the same condition year after year, the average depreciation must equal the average cost of capitalised maintenance. Yet how often do we see quite a different story.

If this figure, which can be the largest item in the Statement of Financial Performance, is way out it throws doubt on the usefulness of the financial statements as a whole, and certainly reduces their value for management purposes.

Part of the problem is that every few years we revalue, which means reassessing the condition and therefore depreciation. When we do this we do not use the information provided to put some rigour into the assumptions about depreciation rates. We just sweep the difference under a mat called asset revaluation reserve, and continue using wrong assumptions.

Improving the Depreciation Assumptions?

The question is - "Is anybody using a depreciation method which picks up the differences found at regular revaluations and feeds them back into the system to improve the assumptions?" If so I would be very interested to have details of how this is done, how often, how much the assumptions have changed, and if possible what extra cost it imposes on the organisation.

We would all accept that it would be crazy to have a person preparing estimates of costs for capital projects and give that person no feedback on the actual costs. The estimator would keep making the same incorrect assumptions. Why do we do this with depreciation?

This provoked a reply from

Anthony Seipolt, Manager Australia – Parsons Brinckerhoff Associates

David,

I work in the electric utility industry and am closely involved in the depreciation discussions that are occurring in the transmission and distribution sectors within Australia.

Role of Depreciation in Regulated Utilities?

At the risk of appearing to trivialise this issue, my first response would be to question the assumption that "average depreciation must equal the average cost of capitalised maintenance". In my experience depreciation is at best a means to approximate what occurs in practice. At worst it is a tool used by governments, regulators or others to penalise (or incentivate).

Each company/utility/business operates to a differing debt structure (i.e. where did their money come from and how are they paying it back). This means that each business will utilise different methods of capitalisation and operationalisation to maximise returns (or minimise costs for NPOs).

To establish a depreciation schedule that was appropriate for each company would most likely result in individual depreciation schedules - a nightmare for all concerned.

That said, the depreciation mechanisms used in the electricity industry are not particularly advanced or innovative. Straight line depreciation is most commonly used for physical assets with fairly conservative asset lives.

Different Capitalisation Procedures

Like your example, the conservative asset lives tend to distort the depreciation values above those that are actually occurring. In addition, many of the companies have different capitalisation procedures depending on how much (or how little) capital they wish to add to their books.

One interesting quirk of electricity regulation is the emerging trend for the regulator to revalue (ODRV) the asset base every so often. The thinking behind this move is to provide a "true-up" after a period of "light-handed" regulation. In other words, the regulator has allowed the addition and removal of assets to the regulated asset base for a number of periods, and at some point determines that the actual asset base requires realignment with the regulatory asset base.

This sort of 'true-up' sounds similar to the revaluation that you mentioned, although it is only likely to occur every 10-15 years or so.

Anthony, thanks for this response.

You say "the conservative asset lives tend to distort the depreciation values above those that are actually occurring"

I would suggest that the consequence of this is:

a) you do not know how much profit you are making

b) you do not have a reliable cost basis for pricing purposes.

If this seems harsh, let us assume your depreciation is overstated by 10% as a result of the 'conservative' assumptions.

Would it be acceptable for pricing and profit determination purposes to overstate your wages by 10%? If not why is it acceptable for depreciation?

What's Your View?

Your insights could easily result in improvements in current depreciation methodologies, as financial bodies and regulators struggle to improve the current situation which most everybody agrees is not working as it should.

So ask your questions, make your comments, MAKE A DIFFERENCE!
at **www.amqi.com/forums/**