



FREE <u>registration</u> allows you to support this site and receive our regular <u>M-News newsletter</u>.

Ö





Turf Management for Golf Courses, 2n... James B Beard New \$103.81! Used \$83.64!

Building Additions Editors of Fine Ho...

<u>Troubleshootin Analog</u> <u>Circuits</u> Robert Pease

Reliability-Centered Maintenance John Moubray

<u>SAP</u> Britta Stengl

Complete Guide to Preventive and Pre... Joel Levitt

<u>The Ultimate Pool</u> <u>Maintenance Manual...</u> Terry Tamminen





CMMS Implementation Survey Results - 2004

© Plant Maintenance Resource Center

Overview

This survey of CMMS Implementation was conducted on the Plant Maintenance Resource Center website between May and July 2004. Read the entire analysis, or click on one of the links below to go to the appropriate section.

- Summary of Key Findings
- <u>Respondent Data</u>
- <u>CMMS Usage</u>
- Reasons for selecting CMMS
- <u>CMMS Comparison</u>
- Implementation Success Factors
- Benefits Achieved

Summary of Key Findings

Voluntary (and confidential) responses were sought to the survey, and 105 valid responses were received from a wide range of individuals working across a variety of industries.

The key findings are:

- The five most common CMMS in use were SAP, Maximo, MP2, MIMS/Ellipse and PMC.
- In comparison with our 2000 survey on this topic, there are significantly more SAP users and significantly fewer MP2 users in this survey.
- Most systems have been in place only for a few years, but a significant proportion have been in place for 5 years or more
- Statistical analysis of responses showed no clear correlation between the conduct of other usual change management activities

associated with CMMS implementation, and the perception of implementation success

- The most commonly stated reasons for selection of the current CMMS were General functionality and features and Integration with other commercial software
- In comparison with our 2000 survey on this topic, Integration with other commercial software was a more significant factor in the selection of the CMMS
- CMMS are seen as being moderate-to hard to use, on average, with Maximo rating highest in terms of ease of use
- CMMS are, on average, seen as being only moderately well endowed with functionality and features, although SAP and Maximo rate highly in this area
- CMMS implementations are generally seen as moderately successful, with little variation between ratings for the top 5 most popular CMMS packages
- Most of those respondents who rated their implementation as poor had implemented packages other than these most popular packages
- In comparison with our 2000 survey on this topic, relatively fewer implementations, overall, are rated as being Poor
- The most important factors in implementation success were obtaining Senior Management committment, and effective training. The relative importance of slecting the correct CMMS appears to have declined over the last 4 years.
- Overall, most respondents reported that their CMMS implementation has led to some or significant benefits

Respondent Data

Of the 105 valid responses, just under one third half were based in the USA, with Australia, Canada, and the United Kingdom also well represented.

In comparison with our <u>2000 survey</u> on this topic, the overall proportion of respondents from the USA has reduced significantly, and those from other parts of the world increased.

Country	Responses	% of Total
United States	31	29.5%
Australia	11	10.5%
United Kingdom	7	6.7%
Canada	6	5.7%
India	4	3.8%
Egypt	4	3.8%
Argentina	2	1.9%

(Prices May Change) Privacy Information

Venezuela	2	1.9%
Iran	2	1.9%
South Africa	2	1.9%
Thailand	2	1.9%
Ireland	2	1.9%
Other/Not Specified	30	28.6%

Respondents came from a wide range of industries.

In comparison with our <u>2000 survey</u> on this topic, there are significantly more respondents from Manufacturing-Petroleum refining, chemicals and associated products, and fewer from Manufacturing: Other.

Industry	Responses	% of Total
Manufacturing-Petroleum refining, chemicals and associated products	15	14.3%
Manufacturing-Food, beverages, tobacco	9	8.6%
Oil and Gas-Oil and gas extraction	8	7.6%
Mining-Metal ore	7	6.7%
Manufacturing-Metal products	7	6.7%
Manufacturing: Other	6	5.7%
Utilities-Electricity Generation	5	4.8%
Services-Transport	4	3.8%
Manufacturing-Wood and paper products	4	3.8%
Manufacturing-Non-metallic mineral processing	4	3.8%
Services-Healthcare	3	2.9%
Services-Other	2	1.9%
Utilities-Water, sewerage, drainage	2	1.9%
Services-Education/Academia	2	1.9%
Services-Contract Maintenance/Repairs	2	1.9%
Manufacturing-Machinery and equipment	1	1.0%

Services-Property services/Building Maintenance	1	1.0%
Mining-Services to Mining	1	1.0%
Mining-Other	1	1.0%
Agriculture-Forestry & Logging	1	1.0%
Manufacturing-Printing, publishing, and recorded media	1	1.0%
Other/Not Specified	19	18.1%

As in our 2000 survey on this topic, respondents generally came from larger and medium sized organisations.

No of Trades/Craftspeople	Responses	% of Total
Large(more than 100 crafts/tradespeople)	50	47.6%
Medium(10 to 100 crafts/tradespeople)	39	37.1%
Small(less than 10 crafts/tradespeople)	16	15.2%

Detailed Results

This article focuses on some of the more interesting results, and also reviews the correlation between some of the survey results in order to determine what factors (if any) are more likely to lead to successful CMMS Implementation.

CMMS usage

Over 80% of respondents are currently using a CMMS. This is lower than for our <u>2000 survey</u> on this topic, where almost 90% of respondents were currently using a CMMS.

Does your workplace currently use a CMMS?				
Responses % of Tota				
Yes	86	81.9%		
No	19	18.1%		

The five most common CMMS in use include Maximo, SAP, MP2, PMC and MIMS. In comparison with our <u>2000 survey</u> on this topic, there are significantly more SAP users and significantly fewer MP2 users in this survey. It would appear that the trend towards larger, integrated business systems may be impacting on those packages operating at the lower end of the CMMS market.

Which CMMS does your workplace currently use?					
CMMS	Responses	% of Total			
SAP	26	24.8%			
Maximo	14	13.3%			
MP2	6	5.7%			
MIMS	5	4.8%			
PMC	4	3.8%			
Mainsaver	3	2.9%			
MPAC	3	2.9%			
Elke/Maintracker	2	1.9%			
AMMS	2	1.9%			
Avantis	1	1.0%			
Asset controller xp	1	1.0%			
BPCS	1	1.0%			
Cedar	1	1.0%			
CENDEX	1	1.0%			
faciliworks	1	1.0%			
IMMPOWER	1	1.0%			
IFS	1	1.0%			
Isis	1	1.0%			
ITms Four Rivers	1	1.0%			
JD Edwards	1	1.0%			
Mainpac	1	1.0%			
Maintain it	1	1.0%			
Maintenance Manager	1	1.0%			
max	1	1.0%			
Mex	1	1.0%			

MPC Megamation	1	1.0%
Passport	1	1.0%
PC Maint	1	1.0%
PM Soft	1	1.0%
Rimses	1	1.0%
Tabware	1	1.0%
U.S. Postal Service E-Mars	1	1.0%
Workmate	1	1.0%
ZOLES	1	1.0%
Other/Not Specified	14	13.3%

Most systems have been in place only for a few years, but a significant proportion have been in place for 5 years or more. In comparison with our <u>2000 survey</u> on this topic, most systems have been implemented for longer, on average - could this be as a result of the pre-Y2K "bubble" in systems implementation activity?

How long ago did you "go live"?					
Years	Responses % of Tota				
In progress	5	4.8%			
<1 year	6	5.7%			
1-2 years	17	16.2%			
2-3 years	13	12.4%			
3-4 years	13	12.4%			
>4-5 years	7	6.7%			
>5 years	27	25.7%			
Not Applicable	17	16.2%			

Reasons for selecting a CMMS

A large proportion of respondents were not aware of the reasons for selection of the current CMMS, but the most commonly stated reasons were General functionality and features and Integration with other commercial software. In comparison with our <u>2000 survey</u> on this topic,

Integration with other commercial software was a more significant factor in the selection of the CMMS. Ease of Use was seen as being less important in CMMS selection in this survey than in the previous survey.

What was the most/second most important reason that your workplace chose your current CMMS?						
	Most Im	portant	Second Most Important			
Reason	Responses	% of Total	Responses	% of Total		
Availability in local language version	0	0.0%	1	1.0%		
Availability of local support	1	1.0%	7	6.7%		
Availability of training	2	1.9%	1	1.0%		
Compatibility with previous CMMS software	4	3.8%	2	1.9%		
Compatibility with our hardware/operating system	3	2.9%	3	2.9%		
Don't know	24	22.9%	22	21.0%		
Ease of implementation	1	1.0%	1	1.0%		
Ease of Use	9	8.6%	4	3.8%		
General functionality and features	10	9.5%	14	13.3%		
General reputation of software and its vendor	4	3.8%	9	8.6%		
Integration with other commercial software	16	15.2%	8	7.6%		
Integration with other technical software	0	0.0%	2	1.9%		
It uses the latest technology	1	1.0%	4	3.8%		
Other/Not Applicable	22	21.0%	18	17.1%		
Price	7	6.7%	7	6.7%		
Speed of system response	1	1.0%	2	1.9%		

Amongst the "other" reasons given for selecting their CMMS, respondents included:

- Already being used in one of our other divisions.
- o Best offer to improve my maintenance department
- Can handle enormous amounts of data.
- $\circ~$ Coorporate decision
- Dealer is one of our company group

• Wide use across the industry

CMMS Comparison

CMMS are seen as being moderate-to hard to use, on average, with Maximo rating highest in terms of ease of use, SAP seen as being slightly harder to use than the average, and other packages outside the most popular five having a wide range of ease-of-use ratings. In comparison with our <u>2000 survey</u> on this topic, the ratings for ease of use of SAP has improved markedly - Maximo continues to stand out in this area in terms of ease of use.

How would you rate your current CMMS in terms of its ease of use?							
		No of Responses					
CMMS	Excellent	Excellent Very Good Good Satisfactory Poor					
Maximo	3	3	6	2			
MP2	1	1	3	1			
SAP		6	10	6	3		
MIMS	1	1	1	2			
PMC			2	2			
Other	4 8 14 6				3		
Total	8	17	28	21	13		

CMMS are, on average, seen as being only moderately well endowed with functionality and features, although SAP and Maximo rate highly in this area. In comparison with our <u>2000 survey</u> on this topic, Maximo's ratings in this area appear to have slipped slightly.

How would you rate your current CMMS in terms of its general features and functionality?							
		No of Responses					
CMMS	Excellent	Excellent Very Good Good Satisfactory Poor					
Maximo	1	7	4	2			
MP2		2	3	1			
SAP	1	14	4	5	1		
MIMS	1	1	1	2			
PMC			2	1	1		

Other	4	5	7	12	5
Total	7	30	20	23	7

On average, CMMS implementations are generally seen as moderately successful, with little variation between ratings for the top 5 most popular CMMS packages. Most of those respondents who rated their implementation as poor had implemented packages other than these most popular packages. In comparison with our <u>2000 survey</u> on this topic, the ratings for SAP are more balanced in this survey - in the 2000 survey, most ratings were extreme - people seemed to either love or hate it. It appears that respondents now have a more considered view of the success of their SAP implementations. In addition, relatively fewer implementations, overall, are rated as being Poor.

Overall, how would you rate the success of your CMMS implementation?					
	No of Responses				
CMMS	Excellent	Very Good	Good	Satisfactory	Poor
Maximo		5	6	2	
MP2	1	1	2		1
SAP		5	11	8	1
MIMS	1	1	1	1	1
PMC		1	2		1
Other	2	7	7	8	9
Total	4	20	29	19	13

Factors Influencing Implementation Success

According to the respondents, the most important factors in their success were obtaining Senior Management committment, and effective training. In comparison with our <u>2000 survey</u> on this topic, Senior Management committment remains the most important factor in success, but Training is considered to be significantly more important than in the last survey. The relative importance of slecting the correct CMMS appears to have declined over the last 4 years.

What do you consider are the two most important aspects of your implementation that led to your success?					
	Responses				
Factor	Most Important Second Most Important Tot				
Senior Management commitment	15 17				

Effective training	12	17	29
Choosing the right CMMS	10	7	17
Effective Change Management	10	5	15
Focus on business benefits	5	9	14
Adequate budget	6	8	14
Effective BPR	5	8	13
Effective Project Management	5	5	10
CMMS Vendor Support	7	2	9
Consultant support	4	2	6

Other reasons for success mentioned by respondents included:

- o Cost, it was done inhouse.
- Strong and knowledgable end users.

Reinforcing the previous point, the most important area in which respondents wished they had done better was in the area of training. However, effective Business Process Reengineering (BPR) was also one area where respondents wished they had spent more time and effort. In comparison with our <u>2000 survey</u> on this topic, better BPR and better Change Management were factors that are now considered to be more important - Selecting the right CMMS was seen as relatively less important in 2004 compared with 2000.

In hindsight, what is the most important aspect of your implementation that you should have spent more time and effort on, in order to increase implementation success?				
Factor	Responses	Percent		
Effective training	20	19.0%		
Choosing the right CMMS	9	8.6%		
Senior Management commitment	8	7.6%		
Effective BPR	16	15.2%		
Effective Change Management	12	11.4%		
Effective Project Management	5	4.8%		
Adequate budget	5	4.8%		

Focus on business benefits	2	1.9%
CMMS Vendor Support	3	2.9%
Consultant Support	1	1.0%
Other/Not Applicable	24	22.9%

Benefits obtained from CMMS Implementation

Overall, most respondents reported that their CMMS implementation has led to some or significant benefits. Note that, in the following table, the large number of "Don't Know/Not Applicable" responses includes those from people who do not currently use a CMMS.

In comparison with our <u>2000 survey</u> on this topic, the overall level of benefits reported seems to have reduced slightly in some of the "hard" benefit areas, such as labour costs and equipment availability.

	Size of Benefits Obtained % of Responses			
Area of Benefit	Significant	Some	None	Don't Know/Not Applicable
Reductions in Labor Costs	5.7%	32.4%	29.5%	32.4%
Reductions in Materials Costs	11.4%	32.4%	22.9%	33.3%
Reductions in Other Costs	8.6%	36.2%	23.8%	31.4%
Improved Equipment Availability	9.5%	37.1%	21.9%	31.4%
Improved Equipment Reliability	13.3%	41.0%	15.2%	30.5%
Improved Cost Control	35.2%	23.8%	16.2%	24.8%
Improved Maintenance History	30.5%	37.1%	9.5%	22.9%
Improved Maintenance Planning	30.5%	36.2%	8.6%	24.3%
Improved Maintenance Scheduling	28.6%	39.0%	6.7%	25.7%
Improved Maintenance Schedules	29.5%	35.2%	9.5%	25.7%
Improved Spare Parts Control	21.9%	35.2%	12.4%	30.5%

Additional benefits cited by respondents included:

- Upgrade in knowledge
- o Equipment Perfomance

- Reduced fire fighting calls and breakdowns
- $\circ~$ Standardisation between different maintenance departments
- o Enhanced computer literacy, measurement
- Enhanced transparency and accountability
- \circ Trending
- $\circ~$ Time sheets of engineers
- Improved control of material tracking & delivery
- $\circ~$ Be able to implement Asset maintenance program (RCM/RBI method) in the organisation
- o Inventory control
- Changes in maintenance processes
- $\circ~$ Vendor details recorded,
- Improved KPI's control
- Cost projection

© Plant Maintenance Resource Center 2004 All rights reserved.

If you wish to copy or distribute this article, please <u>email me</u> to ask for permission first! (Permission will generally be granted, so long as appropriate credit is given to its origin).

Copyright 1996-2005, The Plant Maintenance Resource Center . All Rights Reserved. Revised: <u>Privacy Policy</u>