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## Presentation of a successful experience, case study, or project.

In the Brújula Session, you will learn from the shared experience of a successful implementation that will serve as a guide to initiate or improve your own plans.

Solve problems and improve your reliability through the implementation of new methodologies and technologies, understanding the origin, analysis, action plan, step-by-step process, achievements, setbacks, and lessons learned that culminate in the business case.



**BRÚJULA**

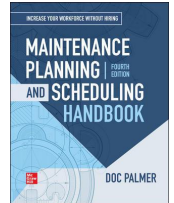


CONGRESO DE  
MANTENIMIENTO  
& CONFIABILIDAD  
COLOMBIA

**1<sup>a</sup>**  
EDICIÓN

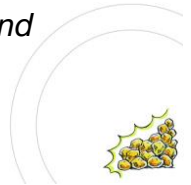


# *Little Nuggets of Wisdom for Work Management*



**Doc Palmer PE, MBA, CMRP**

Author McGraw-Hill *Maintenance Planning and Scheduling Handbook*



Doc Palmer



# **PLANNING**

Doc Palmer



## The Essence of Planning (Why It Works)

- Allowing planners to “fail” makes it possible to plan all the work to improve plans “over time” (and support scheduling)

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## Planning Is NOT Necessarily or Simply

Plan → Do

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*(A sticker seen on a hard hat)*

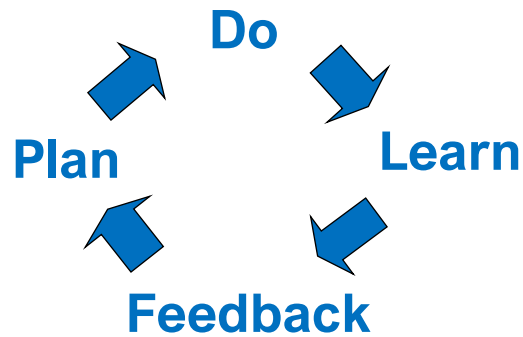
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## Planning IS

- A Cycle of Improvement



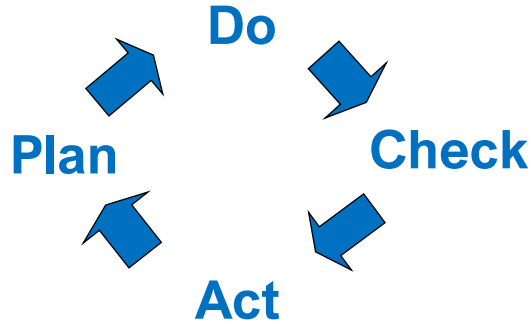
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# Planning IS

- Simply the PDCA Cycle
- W. Edwards Deming 1950's



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What was requested

What we planned to do

What we did

**COULD BE 3 DIFFERENT THINGS!**

REQUESTER SECTION		WORK ORDER		#	Priority
Equipment	Tag #	Def Tag #			
Problem or Work Requested: (ORIGINATOR)					
By:	Outage Req? Y/N	Clearance Req? Y/N	Confined Space? Y/N		
	Date & Time:				
APPROVAL: (ORIGINATOR)					
PLANNING SECTION		Assigned Crew:	Attachment? Y/N		
Description of work to be performed: (PLANNER)					
Labor requirements:					
Parts requirements:					
Special tools requirements:					
By:	Date & Time:	Estimate:	Actual:		
CRAFT FEEDBACK (Modify plan sections above actual labor, parts, & tools)					
Work performed including equipment changes & any problems or delays: (TECHNICIAN)					
Date & Time Started:	Date & Time Completed:				
By:	Date:				
APPROVAL: (TECHNICIAN)					
CODING (PLANNER)					

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## Feedback Three (Types of Feedback)

- What you did if different from the plan.  
**(We do not want anyone ever to blindly follow a job plan!)**
- What you think caused the problem if not clear
- What you think could be done better\* next time we work on this job  
(What would you like to see on the plan if you did this job again? Did you have to make more than one trip to the job site?)

\*(not “what was wrong or incorrect”)

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## Feedback Six (Aids to Collect)

- Craft uses paper orders in field or other “real time” non-restrictive data input
- Planner goes to some crew meetings
- Planner includes Procedure History on plans (Shows that we used the feedback and helps us keep track of changes)
- Supervisor supports; reviews collected work orders
- Management supports; discusses # helpful feedbacks received or # job plans revised
- Management holds short training classes and ongoing discussions

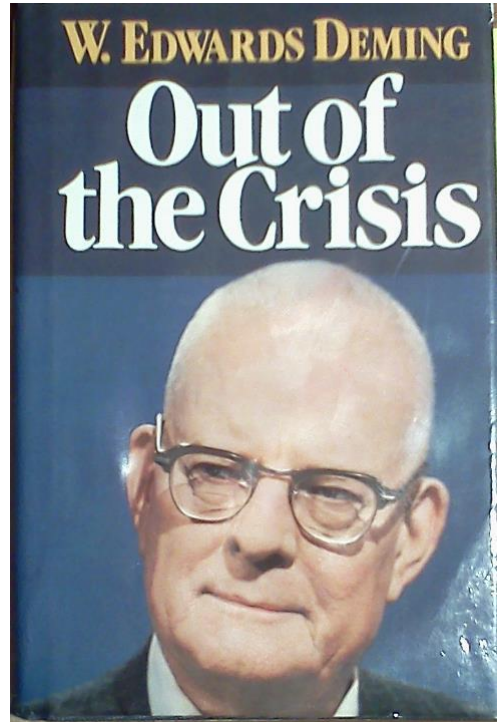
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## Dr. W. Edwards Deming 1900 - 1993

- What does Dr. Deming have to say?



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***“American management thinks that they can just copy from Japan. But they don't know what to copy.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***“If you can't describe what you are doing as a process, you don't know what you're doing.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***“A bad system will beat a good person every time.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***“It is not necessary to change.  
Survival is not mandatory.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***“I am forever learning and  
changing.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***We do not want anyone ever  
to blindly follow a job plan!***

***“All anyone asks for is a chance  
to work with pride.”***

*Dr. W. Edwards Deming  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“Quality is pride of  
workmanship.”***

*Dr. W. Edwards Deming  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“Quality is everyone's  
responsibility.”***

*Dr. W. Edwards Deming  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“Hold everybody accountable?  
Ridiculous!”***

***“When a system is stable, telling the  
worker about mistakes is only  
tampering.”***

*Dr. W. Edwards Deming  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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**“Lack of knowledge... that is the problem.”**

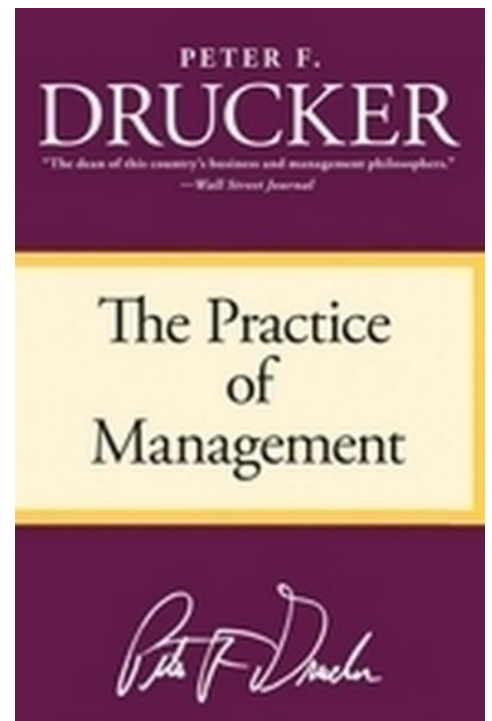
*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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## **Dr. Peter F. Drucker** **1909 - 2005**

- What does Dr. Drucker have to say?



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## **The “feedback” thing**

***“Follow effective action with quiet reflection. From the quiet reflection will come even more effective action.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“A manager is responsible for the application and performance of knowledge.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“Today knowledge has power. It controls access to opportunity and advancement.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“Knowledge has to be improved, challenged, and increased constantly, or it vanishes.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“We now accept the fact that learning is a lifelong process of keeping abreast of change. And the most pressing task is to teach people how to learn.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“The only thing we know about the future is that it will be different.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“Trying to predict the future is like trying to drive down a country road at night with no lights while looking out the back window.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“The entrepreneur always searches for change, responds to it, and exploits it as an opportunity.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“Making good decisions is a crucial skill at every level.”***

*Dr. Peter F. Drucker*

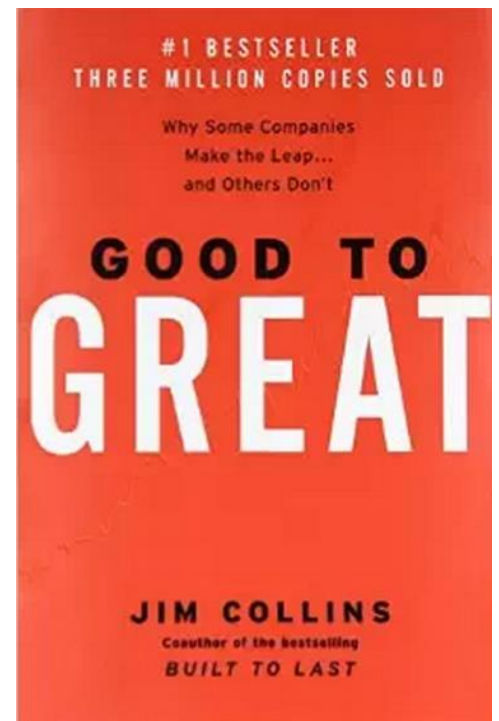
[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.

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## **Jim Collins** **1958 -**

- What does Jim Collins have to say?



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***“To go from good to great  
requires transcending the curse  
of competence.”***

*Jim Collins*

*[https://books.google.com.br/books/about/Good\\_to\\_Great.html?id=Q7ja95uwUT4C&source=kp\\_cover&hl=en](https://books.google.com.br/books/about/Good_to_Great.html?id=Q7ja95uwUT4C&source=kp_cover&hl=en)  
accessed 14 June, 2015.*

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***“When you combine a culture of  
discipline with an ethic of  
entrepreneurship, you get the  
magical alchemy of great  
results.”***

*Jim Collins*

*[https://books.google.com.br/books/about/Good\\_to\\_Great.html?id=Q7ja95uwUT4C&source=kp\\_cover&hl=en](https://books.google.com.br/books/about/Good_to_Great.html?id=Q7ja95uwUT4C&source=kp_cover&hl=en)  
accessed 14 June, 2015.*

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***“Those who launch radical change programs and wrenching restructurings will almost certainly fail to make the leap.”***

*Jim Collins*

*[https://books.google.com.br/books/about/Good\\_to\\_Great.html?id=Q7ja95uwUT4C&source=kp\\_cover&hl=en](https://books.google.com.br/books/about/Good_to_Great.html?id=Q7ja95uwUT4C&source=kp_cover&hl=en)  
accessed 14 June, 2015.*

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## Doc and Others...



- How about some other nuggets?

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***“Planning is about defeating  
Murphy’s Law”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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***Murphy’s Law:  
Anything that can go wrong will  
go wrong***

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*Spelling*

41



*A school!*

42

# **Planners save information for craftspersons**

**“A planner is a  
‘craft historian’”**

*David Clemons  
Planner at JEA*

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**Tie Job  
Plans and  
information  
to asset  
numbers!**

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**Asset  
library:  
paper or  
computer**

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45



**Like a  
dentist  
office**

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**Must have  
asset  
numbers**

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***USA: Understand, Simplify,  
then Automate (Karl Kapp)***

***“If we have to use a CMMS,  
make it quick and painless”***

*Rick Baldrige, Cargill*

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***“The computer is a moron.”***

*Dr. Peter F. Drucker*  
[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.

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***We “grow” better plans  
over the years***

***“As a planner, I plant seeds  
that grow. I do not plant full  
grown oak trees.”***

*Warren Trojanoski*  
*Planner at JEA*

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***Start here when planning jobs  
(Management by Objective)***

***“The emphasis should be on  
why we do a job.”***

*Dr. W. Edwards Deming*  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.

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***“A problem well stated is a  
problem half solved”***

*Charles Kettering*

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***Get those jobs through the  
Deming Cycle***

***“Put what you know,  
and go!”***

*2015 Lisa Horton, Columbia Pipeline Group*

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***Collect and incorporate that  
feedback***

***“A short pen is better than a  
long memory”***

*2014 Mechanical Supervisor Bunge Company in  
Barcelona Spain quoting his grandmother*

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***“A good note is better than a good memory”***

*~2010 John Kasper pastor*

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***That feedback IS  
“out there”***

***“We are data rich, but  
information poor”***

*Heard at SMRP conference circa 1990’s*

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***“If GE knew what GE knew, we’d be invincible!”***

*Attributed to Jack Welch CEO GE*

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**!!!**

***(Why should we have to find the mouse a second time?)***

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***Craftspersons fear giving feedback to make plans better***

***“The planning program is not trying to give away the plant’s work to contractors”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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***Lesson: Because plans are not perfect, run the Deming Cycle***

***“The best-laid schemes o' mice an' men gang aft a-gley”***

***The best laid schemes of mice and men oft go astray***

*Robert Burns Poet*

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# SCHEDULING

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## The Essence of Scheduling (Why It Works)

- Creating fully-loaded schedules and allowing breaking them makes it possible to complete more work overall.



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# Scheduling Is NOT Necessarily or Simply

Hour-by-hour with names a week in advance

M	T	W	Th	F
Fred #15678	Mike #14356	Mike #14682	Mike #19765	Mike #12345
Mike #15983	Jack #13456	Fred #15234	Jason #18764	Jack #11123
Jack #15893	Jason #12356	Mike #15790	Fred #16387	Fred #13456
Fred #16222	Mike #15467	Mike #13458	Mike #17865	Mike #17856
Jack #14567	Fred #18796	Fred #13478	Jason #15689	Mike #17856
Mike #13456	Jack #18976	Jason #17689	Jack #15672	Fred #15470
Jason #18395	Jason #12359	Mike #14579	Mike #14567	Jason #13600

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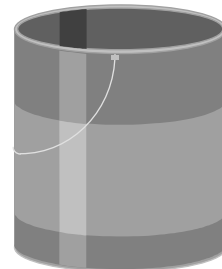


# Scheduling IS

- Is a full allocation of work for a week to defeat Parkinson's Law. Could be a list or a bucket



Fill Available Crew Skill Hours with Work Order Hours



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## Scheduling IS

- Simply MBO Management by Objective
- Peter Drucker 1950's
- The “objective” is to help us complete more work than we would normally complete.



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***“Management by objective works  
- if you know the objectives.  
Ninety percent of the time you  
don't.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***The objective of scheduling is to help us “complete more work,” not necessarily to “complete the schedule.”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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"if you don't know where you want to go, then it doesn't matter which path you take."



alice in wonderland

***The Cheshire Cat***  
***Lewis Carroll 1865***

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# ***“Scheduling is about defeating Parkinson’s Law”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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# ***Parkinson’s Law: The amount of work assigned will expand to fill the time available***

*1955 Cyril Parkinson*

*(November 19th, 1955), Parkinson’s Law, The Economist as reported  
in [http://en.wikipedia.org/wiki/Parkinson's\\_law](http://en.wikipedia.org/wiki/Parkinson's_law) accessed 10 Oct, 2013.*

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# ***“Parkinson’s Law works everywhere”***

*1986 Michael Gorbachev as quoted by Margaret Thatcher O’Sullivan, John (June 2008). "Margaret Thatcher: A Legacy of Freedom". Imprimis (Hillsdale College) 37 (6): 6. as reported in [http://en.wikipedia.org/wiki/Parkinson's\\_law](http://en.wikipedia.org/wiki/Parkinson's_law) accessed 10 Oct, 2013.*

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# ***“Time is the scarcest resource and unless it is managed nothing else can be managed.”***

*Dr. Peter F. Drucker  
[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“The average American worker has fifty interruptions a day, of which seventy percent have nothing to do with work.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***MANAGEMENT must insist we fully load schedules...***

***“The productivity of work is not the responsibility of the worker but of the manager.”***

*Dr. Peter F. Drucker*

*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***...and allow breaking the schedule***

***“People with targets and jobs dependent upon meeting them will probably meet the targets - even if they have to destroy the enterprise to do it.”***

*Dr. W. Edwards Deming*

*[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***(SC is not about underloading the schedule to look good)***

***“Weekly schedule compliance is the ultimate measure of proactive maintenance”***

*John Crossan, Clorox, 1997*

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***“Whenever there is fear, you will get wrong figures.”***

*Dr. W. Edwards Deming*  
*[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“Schedule compliance is not strictly under the control of the supervisors”***

*Doc Palmer*  
*Maintenance Planning and Scheduling Handbook*

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***(Truths about scheduling)***

***“Planners cannot make the perfect time estimate”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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***Planners are “estimating”  
not “exactimating”***

*2019 Jason Henley Veolia*

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***“Management cannot hold technicians accountable to time estimates for single jobs”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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***“Wrench time” at good plants is 35%, but best practice is 55%***

***“The big problems are where people don't realize they have one in the first place.”***

*Dr. W. Edwards Deming*

*[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***WT merely explains why there is an opportunity***

***“Wrench time is not strictly under the control of the technicians”***

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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*(Not simply this)*

84

**30 persons + 1 planner  
= 47 persons!**

**“1 planner equals 17 persons”**

*Doc Palmer*

*Maintenance Planning and Scheduling Handbook*

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***Lesson: Because of Parkinson’s  
Law, load up schedules***



Increase Your  
Workforce without  
Hiring

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***Extra labor to do more  
proactive work***

***“Efficiency is doing things right;  
effectiveness is doing the right  
things.”***

*Dr. Peter F. Drucker*  
[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.

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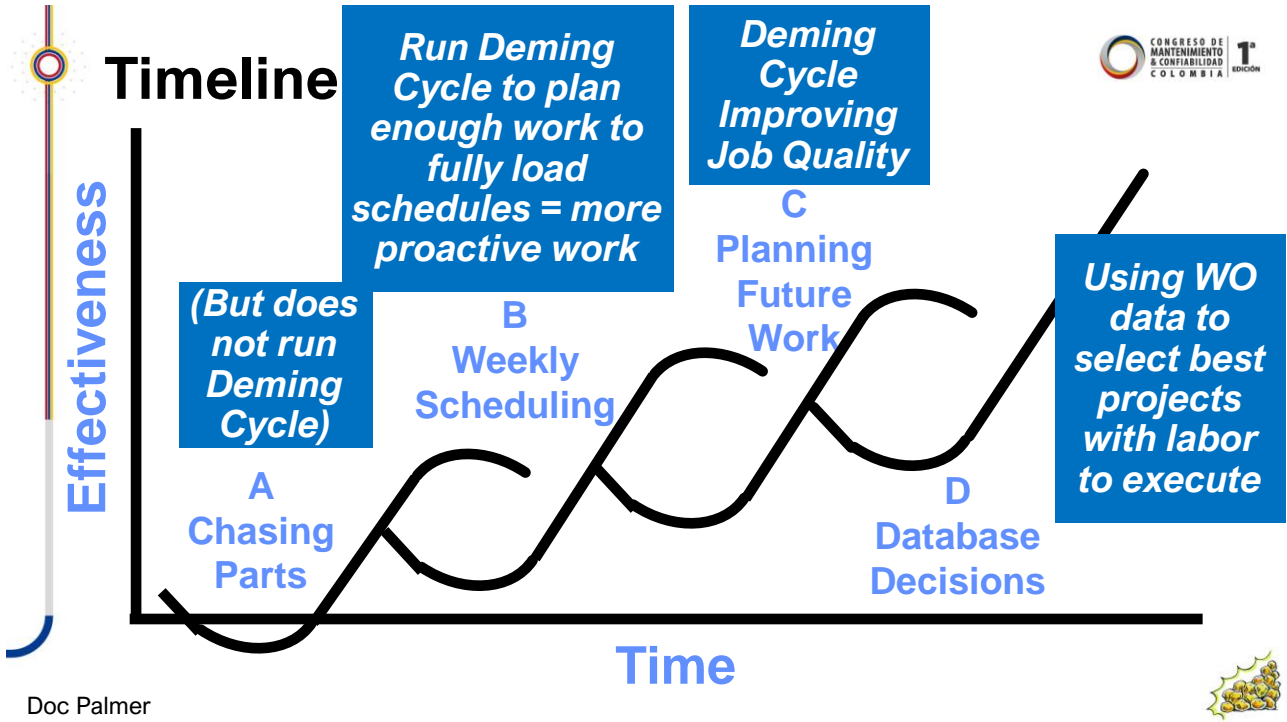


***When does Planning  
& Scheduling Help?***

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***Be able to pick the best proactive work and projects***

***“Modern maintenance needs to do less with less”***

*Larry Bradley 2005  
 Technical Superintendent  
 St. Johns River Power Park 2005*

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# *Some other stuff...*

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## **Vendors & Contractors**

***“The result of long-term relationships is better and better quality, and lower and lower costs.”***

*Dr. W. Edwards Deming*  
*[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***People, management, and  
measuring***

***“Be careful to mind the store and  
not just mind the score”***

*Attributed to Unknown*

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***“Avoid KP-Itis”***

*Bob Welnick*

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First VW beetle needed only 1 KPI!

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***“It is better to train employees and lose them than to not train them and keep them”***

*Zig Ziglar*

*<https://www.goodreads.com/quotes/search?utf8=%E2%9C%93&q=ziglar+train&commit=Search> accessed 26 July, 2023.*

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***“Everyone should go home at the end of the day knowing if they have won or lost”***

*Charles Coonradt  
The Game of Work*

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***“Most of what we call management consists of making it difficult for people to get their work done.”***

*Dr. Peter F. Drucker  
[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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***“The prevailing system of management has crushed fun out of the workplace.”***

*Dr. W. Edwards Deming*  
*[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“Everyone should enjoy their work”***

*Doc Palmer*  
*Maintenance Planning and Scheduling Handbook*

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***“Everyone is an adult”***

*Doc Palmer*  
*Maintenance Planning and Scheduling Handbook*

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***“The most important thing in communication is hearing what isn't said.”***

*Dr. Peter F. Drucker*  
*[http://www.brainyquote.com/quotes/authors/p/peter\\_drucker.html](http://www.brainyquote.com/quotes/authors/p/peter_drucker.html) accessed 14 June, 2015.*

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# CONCLUSION

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***There's a lot of stuff  
to think about***

***“Rational behavior requires  
theory. Reactive behavior requires  
only reflex action.”***

*Dr. W. Edwards Deming  
[http://www.brainyquote.com/quotes/authors/w/w\\_edwards\\_  
deming.html](http://www.brainyquote.com/quotes/authors/w/w_edwards_deming.html) accessed 14 June, 2015.*

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***“You can make a lot of crazy rules if you ignore reality!”***

*(Doc’s daughter Abby)*

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**Thank you!**

*for letting me be part of your maintenance family today!*



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**BRÚJULA**



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## Little Nuggets of Wisdom for Work Management

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