Rules-of-Credit

NWCC Presentations

Bellingham
September,27 2012

Objective of This Presentation

- Understanding how the Rules Of Credit can affect your Earned Value.
- I am focusing only on the details of how we use the Rules Of Credit and not on what Rules Of Credit you should use.

•Admiral Hyman G. Rickover
"Father of the Nuclear Navy"

"The man in charge must concern himself with details. If he does not consider them important, neither will his subordinates. Yet "the devil is in the details." It is hard and monotonous to pay attention to seemingly minor matters. In my work, I probably spend about ninety-nine percent of my time on what others may call petty details. Most managers would rather focus on lofty policy matters. But when the details are ignored, the project fails. No infusion of policy or lofty ideals can then correct the situation."

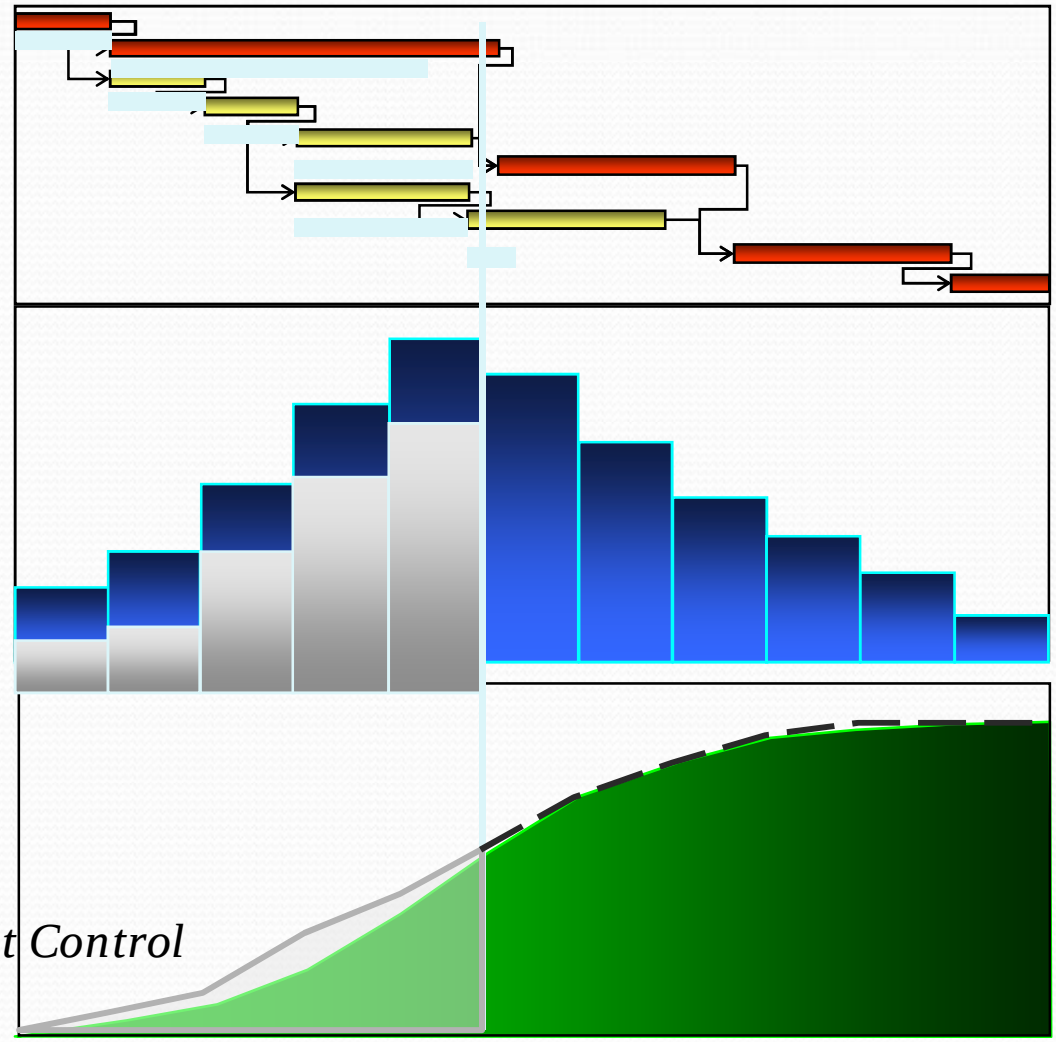
How do Rules of Credit Affect Earned Value Management (EVM)

Define the work (SCOPE)

SCHEDULE

HOURS

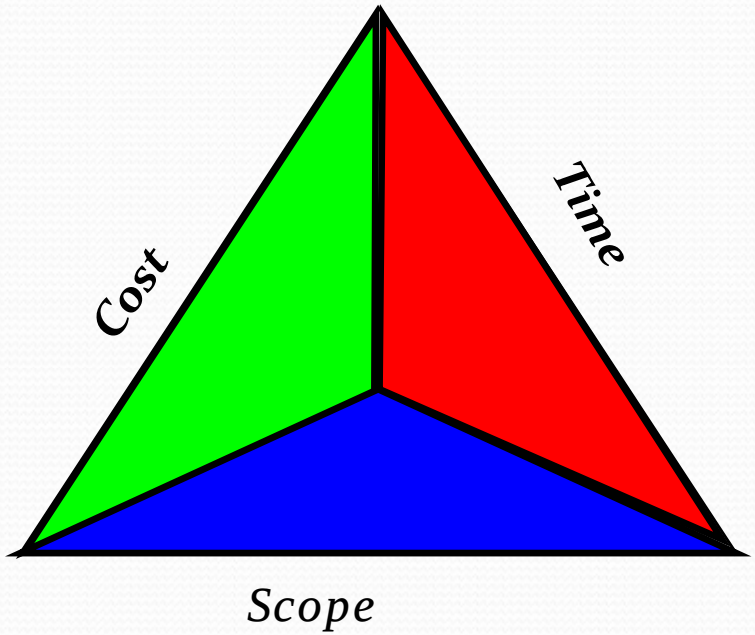
COST



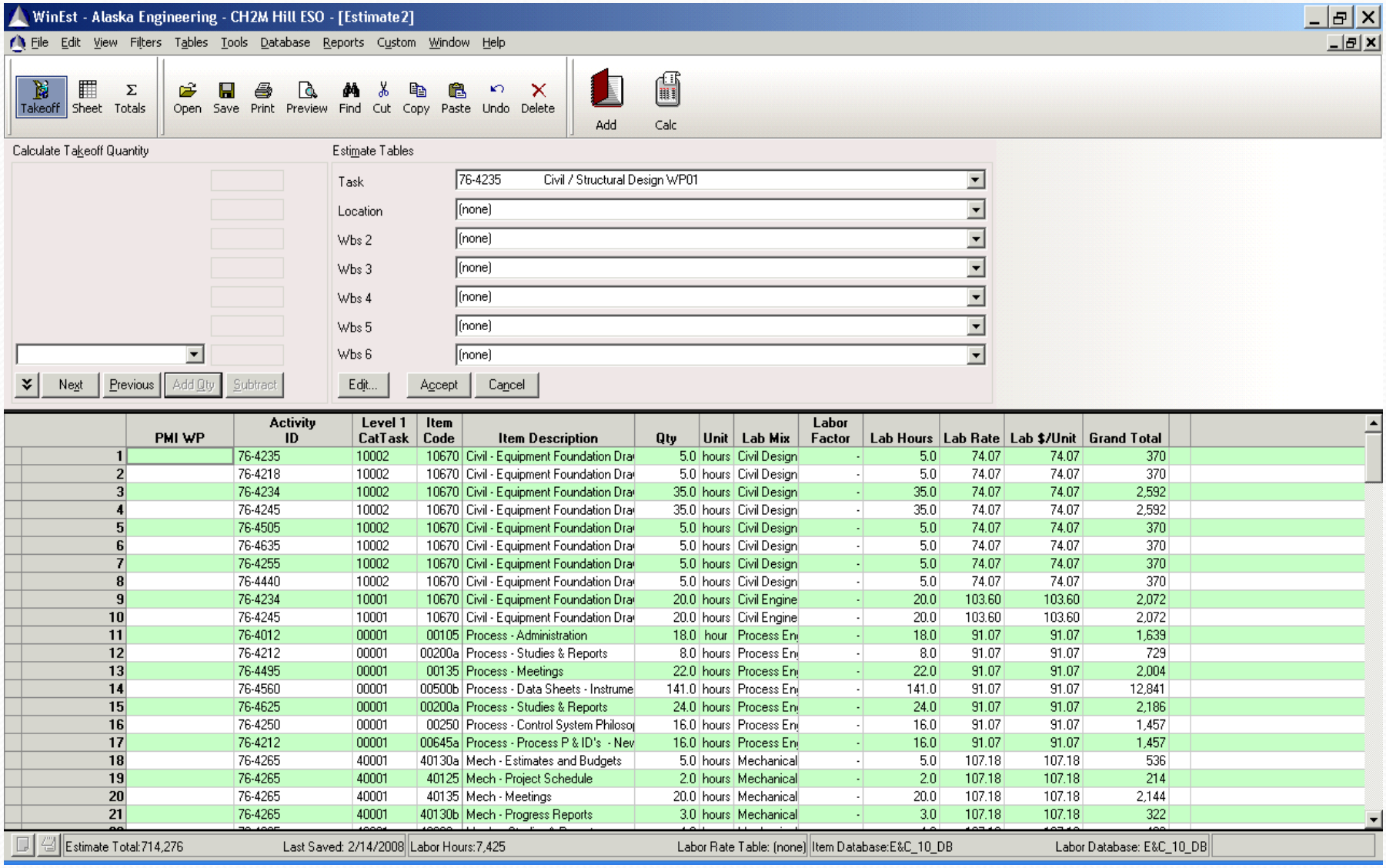
Integrate All Dimensions for Project Control

Review of Project Constraints

- Remember that there is always a relationship with the three primary categories of a project.
- A change in one causes a reactive change in the other two



Sample of an Estimate



	PMI WP	Activity ID	Level 1 CatTask	Item Code	Item Description	Qty	Unit	Lab Mix	Labor Factor	Lab Hours	Lab Rate	Lab $/Unit	Grand Total
1		76-4235	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
2		76-4218	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
3		76-4234	10002	10670	Civil - Equipment Foundation Dra	35.0	hours	Civil Design	-	35.0	74.07	74.07	2,592
4		76-4245	10002	10670	Civil - Equipment Foundation Dra	35.0	hours	Civil Design	-	35.0	74.07	74.07	2,592
5		76-4505	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
6		76-4635	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
7		76-4255	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
8		76-4440	10002	10670	Civil - Equipment Foundation Dra	5.0	hours	Civil Design	-	5.0	74.07	74.07	370
9		76-4234	10001	10670	Civil - Equipment Foundation Dra	20.0	hours	Civil Engine	-	20.0	103.60	103.60	2,072
10		76-4245	10001	10670	Civil - Equipment Foundation Dra	20.0	hours	Civil Engine	-	20.0	103.60	103.60	2,072
11		76-4012	00001	00105	Process - Administration	18.0	hour	Process En	-	18.0	91.07	91.07	1,639
12		76-4212	00001	00200a	Process - Studies & Reports	8.0	hours	Process En	-	8.0	91.07	91.07	729
13		76-4495	00001	00135	Process - Meetings	22.0	hours	Process En	-	22.0	91.07	91.07	2,004
14		76-4560	00001	00500b	Process - Data Sheets - Instrume	141.0	hours	Process En	-	141.0	91.07	91.07	12,841
15		76-4625	00001	00200a	Process - Studies & Reports	24.0	hours	Process En	-	24.0	91.07	91.07	2,186
16		76-4250	00001	00250	Process - Control System Philoso	16.0	hours	Process En	-	16.0	91.07	91.07	1,457
17		76-4212	00001	00645a	Process - Process P & ID's - Nev	16.0	hours	Process En	-	16.0	91.07	91.07	1,457
18		76-4265	40001	40130a	Mech - Estimates and Budgets	5.0	hours	Mechanical	-	5.0	107.18	107.18	536
19		76-4265	40001	40125	Mech - Project Schedule	2.0	hours	Mechanical	-	2.0	107.18	107.18	214
20		76-4265	40001	40135	Mech - Meetings	20.0	hours	Mechanical	-	20.0	107.18	107.18	2,144
21		76-4265	40001	40130b	Mech - Progress Reports	3.0	hours	Mechanical	-	3.0	107.18	107.18	322

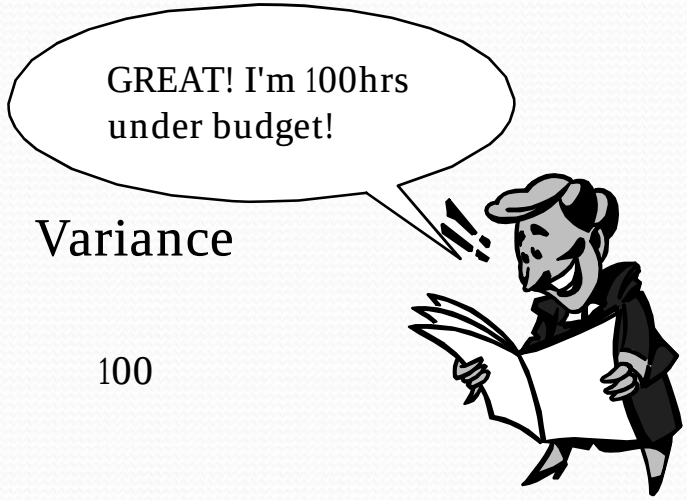
Earned Value Myths

Actual Cost is not an indication of Work Progress, but only an Indicator of hours or money spent.

Progressing “the easy way”

In many systems, you budget work and then record actual expenditures.

Example: I budgeted 5 Picnic Table at 100hrs per picnic table.
At the end of the month 400 hrs had been expended.

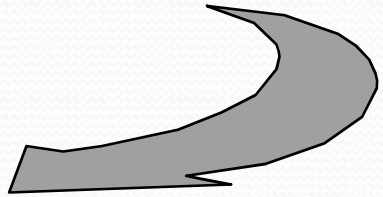


Budget	vs	Actual	Variance
500		400	100

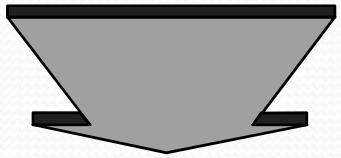
But what does this mean? Is this really the true status of work? What did I accomplish?

But What did we actually Earn

Earned Value adds a new dimension to traditional budget vs actual tracking.



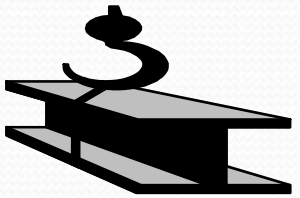
Earned Value



Budget	vs	Actual	Variance
500		400	100

What do we mean by Earned Value

Earned Value - an objective measure of how much work has been accomplished.



Example: I plan to build 5 picnic tables this month. Each picnic tables should take 100hrs.
I will measure Earned Value based on # of picnic tables completed

Month End...

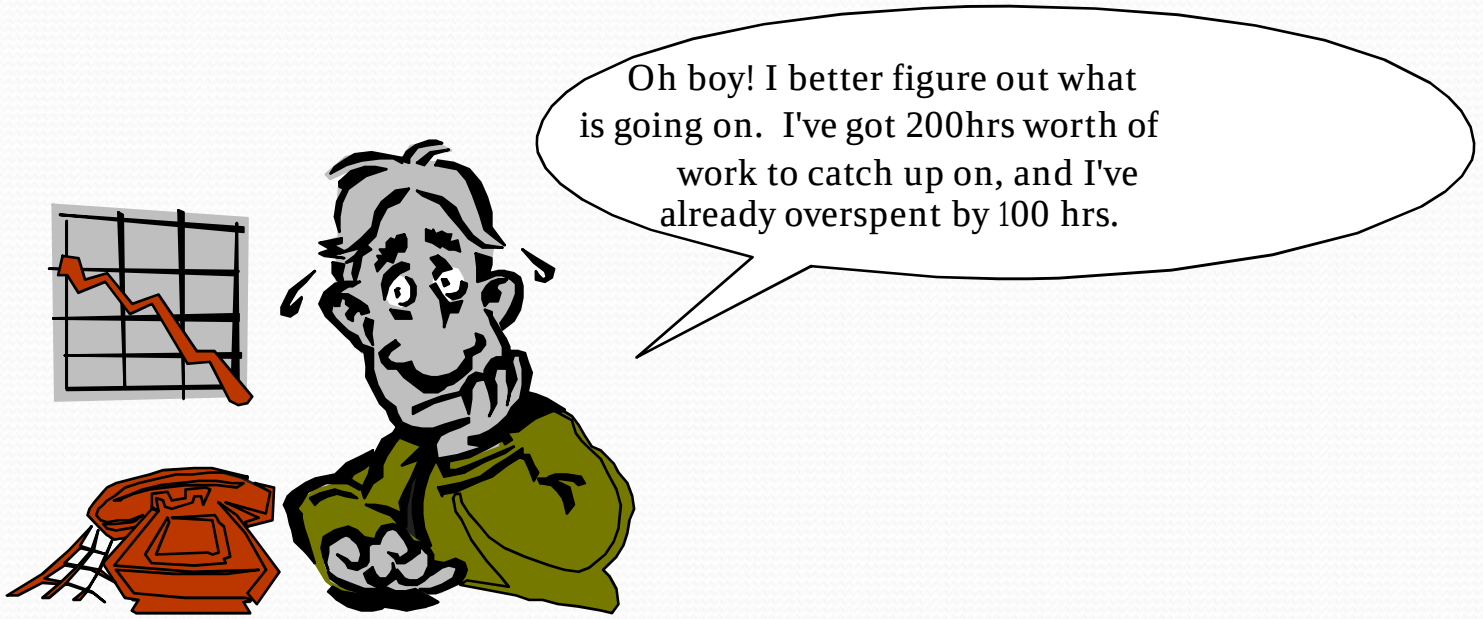
Budget Plan	Earned Value	Actual
500 hrs	300 hrs (3 picnic tables * 100 hrs)	400 hrs

How do YOU look at the numbers

Budget Plan	Earned Value	Actual
500 hrs	300 hrs	400 hrs

Schedule Variance (200)

Cost Variance (100)



Use the Data for Decision Making

- Behind Schedule
  - How critical is schedule?
  - Can I afford to work overtime to recover?
  - Can I do tasks concurrently?
  - Are there technical innovations which could speed up the process?
  - Am I building to the right specifications?
- Over Cost
  - Can I reschedule tasks?
  - Is there a less costly facility I can use?
  - Are there tasks which can be deleted?

Let's Start Over

- If at the beginning of the project, you knew that you were building 100 picnic tables and you estimated that it would take 100 hours per picnic table. What did you base that on?
- Easy clean living!

Lets take a look at the components

- Let's say there are 5 components to our table manufacturing.
- 1. The legs takes 25 hours each to cut and assemble.
- 2. The seats take 5 hours each to cut and assemble.
- 3. The table top takes 20 hours to cut and assemble.
- 4. Sanding & coating 30 hours
- 5. Packaging & Shipping 20 hours

Re-think your Rules of Credit

- If the first table takes you 100 hours does that mean the next table will take you 100 hours?
- No – Setting up the jigs and getting the assembly figured out will take longer the first time then it will the 100th time.
- Therefore you need to take that into consideration when figuring out your rules of credit.
- If your rules of credit are based only on the number of picnic tables you plan to assembled and does not include time for setup and demob. Will I stay in budget?

Cover all aspects of the work

- Did we have Set Up Time in our budget and did we have a way to progress that part of the scope?
- Did we plan for any re-work?
- If we did not, then we have made a mistake and we are showing our PM's and clients inaccurate information.
- Bad information does not help manage a project well.

Maybe we should use a different method for progressing

- We used the 0/100rule other popular methods are the 25/75 rule, 50/50 rule, the 80/20 rule or something in between. Except for the 0/100 rule, these methods all assume an initial progress merely upon starting the work, then assessing the final 100% upon the completion of the work. Each rule places a different weight on either beginning the work or finishing it. The benefit of these methods of assessing progress is that it can be easily automated within an automated earned value management system.

0-100% Rule

- Picnic tables do not count until they are complete.

25-75% Rule

- You now can take 25% credit for just starting a picnic table

50-50% Rule

- You now can take 50% credit for just starting a picnic table

80-20% Rule

- You now can take 80% credit for just starting a picnic table

Level Of Effort

- So you planned to build 100 picnic tables in 6 months.
- The first month you knew you had to order materials and set everything up so you really only planned to build 5 picnic tables.
- That means that you have 19 picnic tables per month to build for the next 5 months to equal a total of 100.

What Percent Complete Are You?

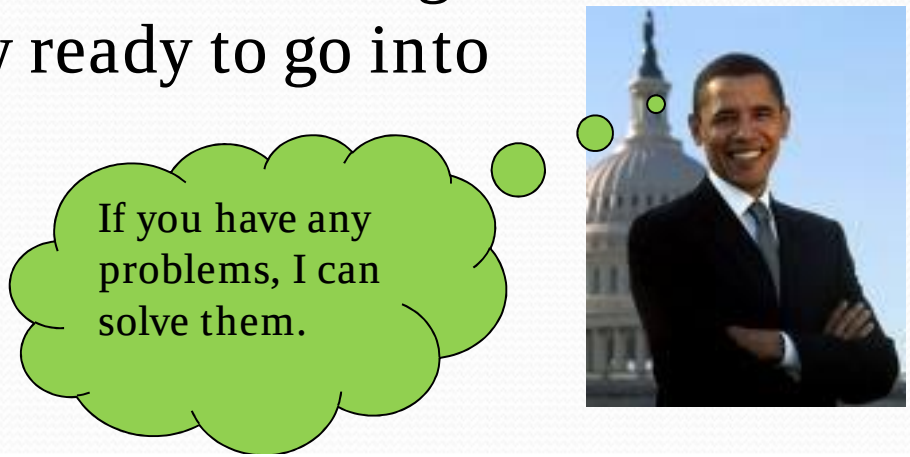
- Easy 3 complete / 100 ordered = 3%
- Not for Level Of Effort
- 1 month gone / 6 months planned = 16.7%
- Using the Earned Value we are on plan

What Method Should You Use

- That will depend on your contract type and project.
- If you need money up front you stack the deck.
- If you are reporting based on milestones you have to figure out what it takes to meet the milestones and what percentage you need to stay whole.
- If you have a T&M contract you want to stay accurate so that your performance gives you the correct information to manage the work.

Progressing ????

- 3 picnic tables may mean that they cut the boards and then assemble the first 3 tables.
- It may mean that they set up the jigs cut all the boards for the 100 tables they plan to assemble but only assembled 3 tables.
- It may mean that they received all the material, set up the jig, worked out all the kinks cutting and assemble the first 3 tables are now ready to go into production mode.



Know your Rules-of-Credit

- It could mean that they have no table assemble but that they have cut enough board that they believe they can put 3 tables together.

- If you do not know and plan your total scope of work your Rule-of-Credit will not tell you where you are.

When was the last time you asked to see the rules of credit?

- After going through the scope, schedule, and budget it should be next on the list.
- Rule of Thumb progressing does not work and will lead to somebody getting into trouble.
- You may think that this only applies to Architectural, Engineering, and Construction firms but if you are the client you need to understand the rules of credit so you pay only for work accomplished.

Summary

- otherwise.

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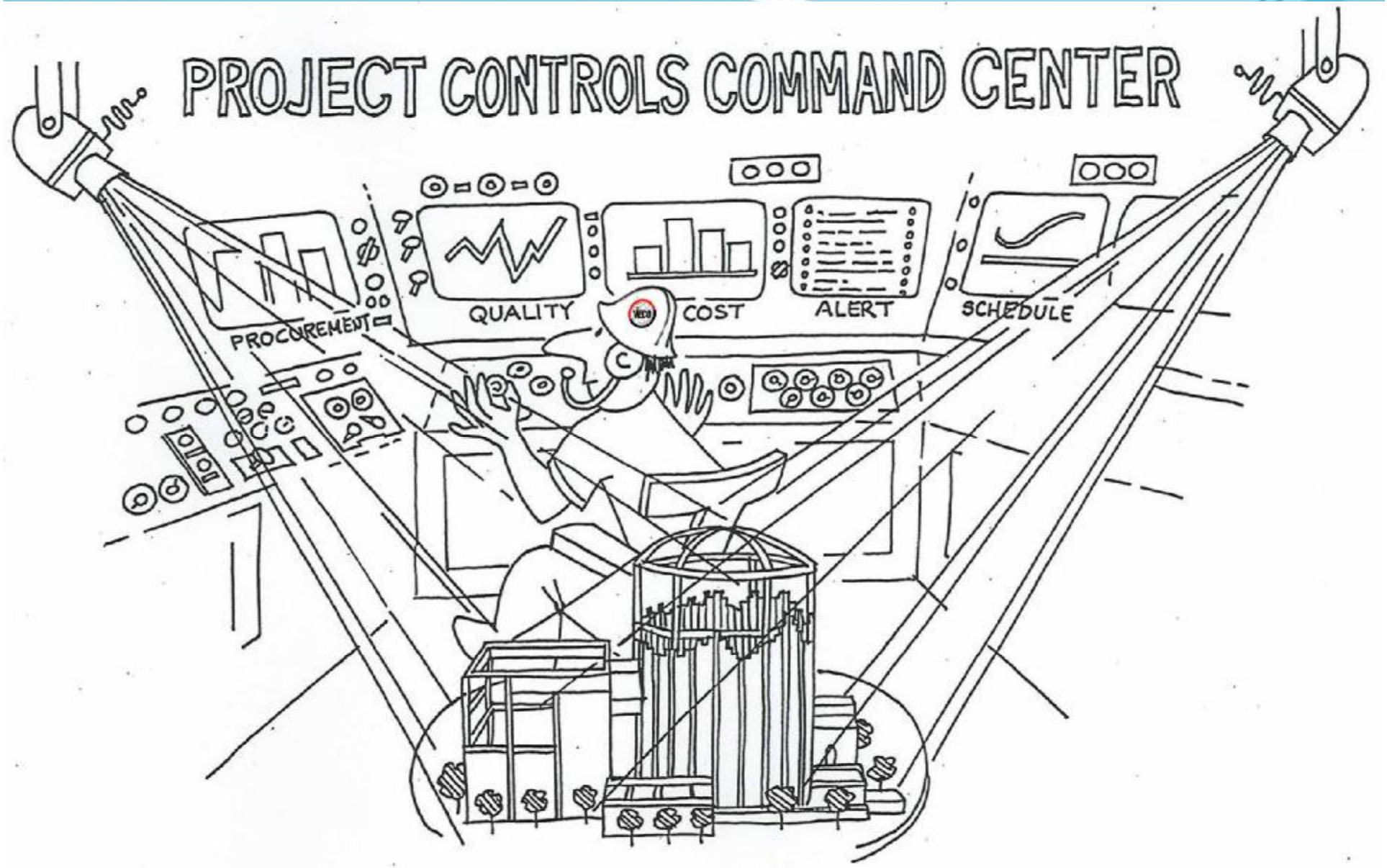
- If you are not looking at the details up front you can not change them later to get the answer you want.

"The greatest problem in communications is the illusion that it has been accomplished."

By George Bernard Shaw


PROJECT CONTROLS COMMAND CENTER
PROCUREMENT
QUALITY
COST
ALERT
SCHEDULE

Let me know if You think that this is confusing.

PM stands for me . . .

Peyton Manning!

If you have any problems, I can solve them.

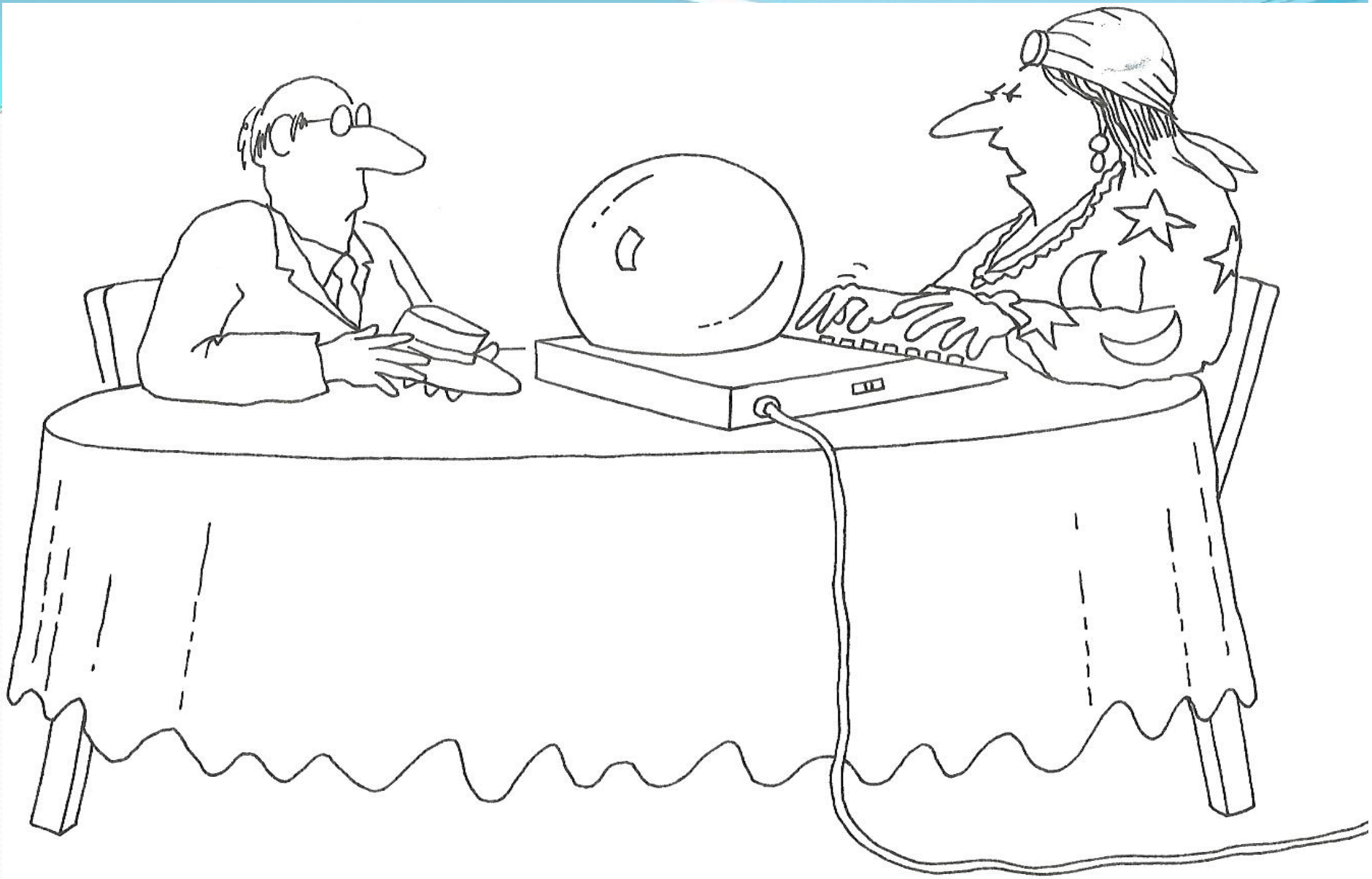
Chi Ching =

Is this guy good or What?

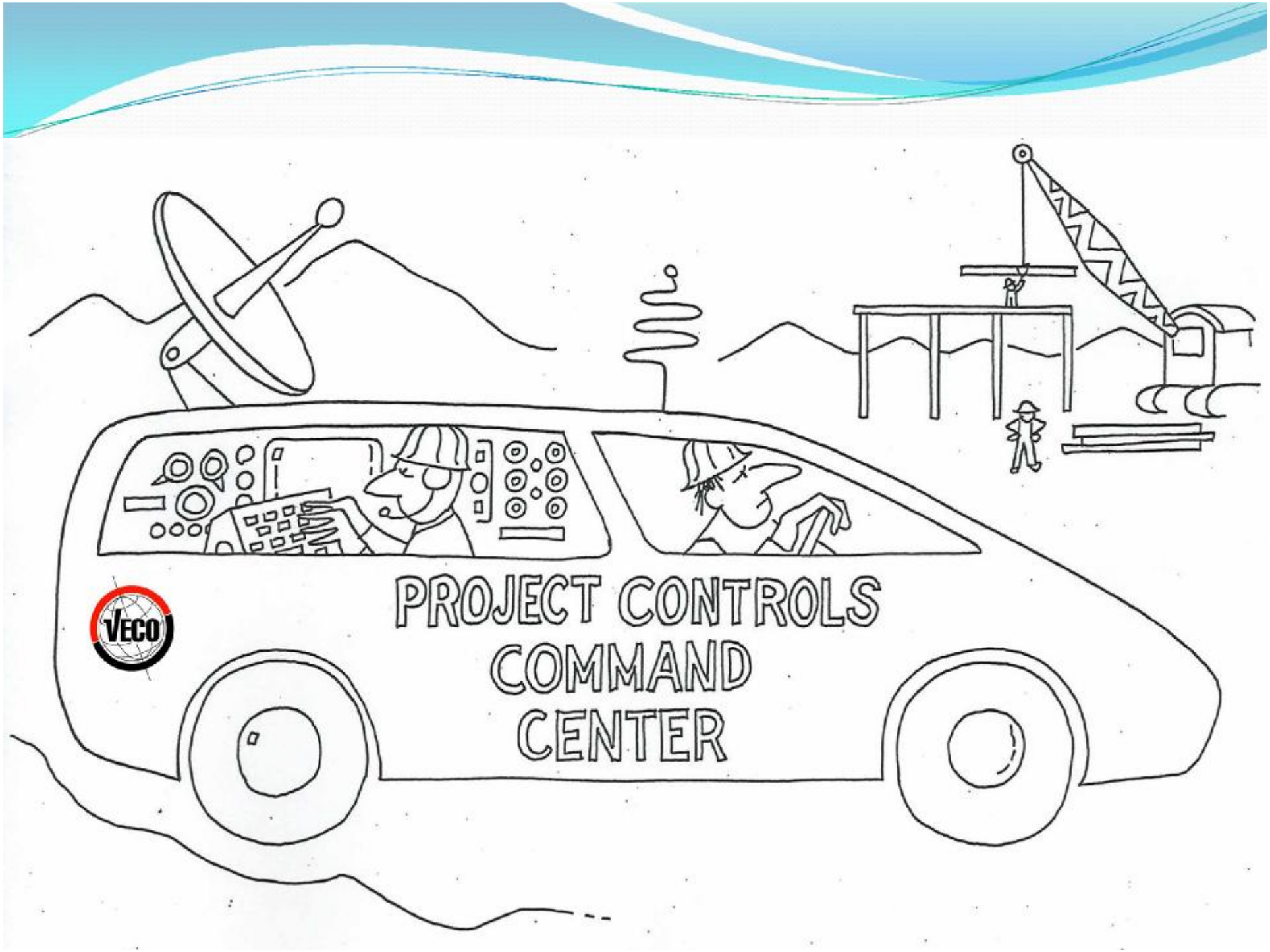

k4894831 www.fotosearch.com


k5577598 www.fotosearch.com

This is some good Stuff, isn't it?



What else would you like to tell me so I can plan this project?


VECO
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