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.
"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."

• Admiral Hyman G. Rickover
  "Father of the Nuclear Navy"
How do Rules of Credit Affect Earned Value Management (EVM)

Define the work (SCOPE)

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
Earned Value Myths

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

Well, I've spent 400 hrs, Does that mean I've accomplished 400 hrs of Work?
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.

<table>
<thead>
<tr>
<th>Budget</th>
<th>vs</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td></td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>

GREAT! I'm 100hrs under budget!

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.

<table>
<thead>
<tr>
<th>Budget</th>
<th>vs</th>
<th>Actual</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>500</td>
<td></td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>
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...

<table>
<thead>
<tr>
<th>Budget Plan</th>
<th>Earned Value</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 hrs</td>
<td>300 hrs</td>
<td>400 hrs</td>
</tr>
<tr>
<td></td>
<td>(3 picnic tables * 100 hrs)</td>
<td></td>
</tr>
</tbody>
</table>
How do YOU look at the numbers

<table>
<thead>
<tr>
<th>Budget Plan</th>
<th>Earned Value</th>
<th>Actual</th>
</tr>
</thead>
<tbody>
<tr>
<td>500 hrs</td>
<td>300 hrs</td>
<td>400 hrs</td>
</tr>
</tbody>
</table>

Schedule Variance: (200)
Cost Variance: (100)

Oh boy! I better figure out what is going on. I've got 200 hrs worth of work to catch up on, and I've already overspent by 100 hrs.
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?
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!
Let's take a look at the components

- Let's say there are 5 components to our table manufacturing.
- 1. The legs take 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 0/100 rule 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.

If you have any problems, I can solve them.
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

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

Chi Ching = otherwise.
“The greatest problem in communications is the illusion that it has been accomplished.”

By George Bernard Shaw
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 =

$5,000
Is this guy good or what?
This is some good Stuff, isn't it?
What else would you like to tell me so I can plan this project?