



The concept of control

A project runs late, is over budget, does not deliver to requirements

- Question: How did this happen?
- Answer: Very gradually





1-10



I THINK I
NEED A HUG.



The concept of control

Based on easy and simple measures that reflect the objectives of the project

Basic requirements are

- Defining characteristics of importance
- Defining limits to their variation
- Measurement of those characteristics
- Making progress visible
- Feedback of performance to the team
- Instituting corrective action where required





Quality systems

Protect the organisation

- From legal liability
- Demonstration of every reasonable precaution

Prerequisite for obtaining business

- Examples: aerospace, pharmaceutical, public procurement

Projects/organisations have become more complex

- The role of the quality specialist has emerged





Earned Value

Brings together time and cost performance into a monetary quantity

Process

- Set the budget
- Measure progress for each activity
- Compare actual with planned
- Calculate: for cost and time





Tasks and budget

<i>Activity</i>	<i>Time</i>	<i>Budget</i>
1	1 week	€5000
2	1 week	€8000
3	1 week	€7000
4	1 week	€12 000
5	1 week	€14 000
6	1 week	€10 000
7	1 week	€13 000
8	1 week	€11 000
9	1 week	€16 000
10	1 week	€4000
TOTAL	10 weeks	€100 000





Earned Value

What is the progress at week 5?

What has been spent? Actual spend is €36 000

What has been completed? Activities 1 to 4

What should have been spent?

Activities 1 to 5 should be complete; therefore planned spend should be
 $5000 + 8000 + 7000 + 12000 + 14000 = €46\ 000$

What is the earned value?

Activities 1 to 4 are complete; therefore earned value is $5000 + 8000 + 7000 + 12000 = €32\ 000$





Variances

What are the variances?

Cost variance

= earned value less actual spend

$$= 32000 - 36000 = -\text{€}4000$$

Schedule variance

= earned value less planned spend

$$= 32000 - 46000 = -\text{€}14000$$

What is the performance?

Cost performance indicator

= earned value/actual spend

$$= 32/36 = 0.889$$

Schedule performance indicator

= earned value/planned spend

$$= 32/46 = 0.696$$



Prediction

What is the effect on the project if nothing is changed?

Estimated cost at completion

= Original budget/cost performance indicator

= £100 000/0.889 = €112 500

Estimated time of completion

= Original time estimate/schedule performance indicator

= 10 weeks/0.696 = 14.4 weeks





Visual control

If you can see it you can monitor it?

The Gantt chart

Traffic lights

