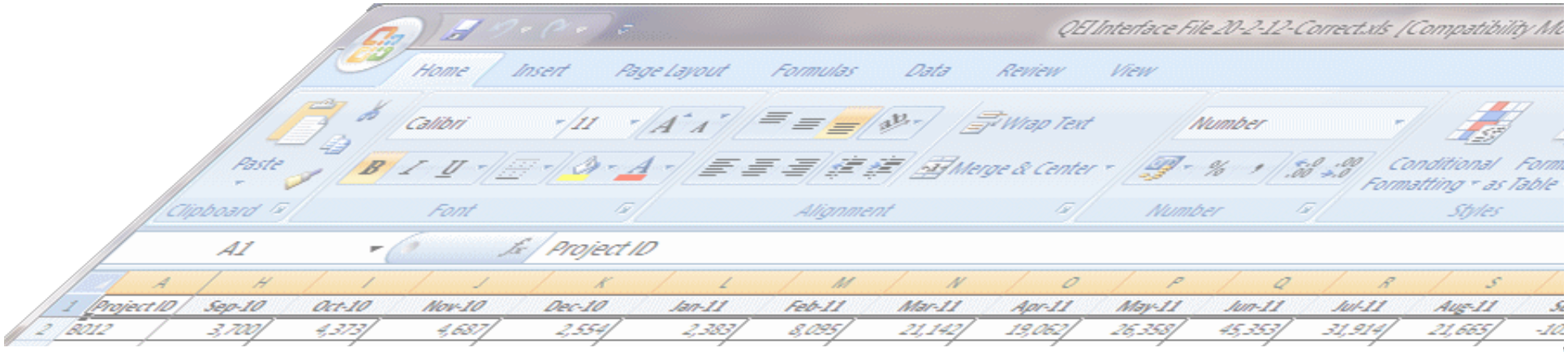

Accurate Management Reports on time, every time - why your project deserves more than Excel

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ORACLE Gold Partner
Specialized
Primavera P6 Enterprise
Project Portfolio Management

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- Introduction to PCF
- The Challenge of Project Reporting
- Spreadsheets – the “obvious” solution
  - Errors and Risks
- QEI Management Reporting
  - Example Reports and Case Studies

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Introduction to PCF

- Founded in 1982
- Based in Hemel Hempstead
- Specialists in graphical reporting for projects
- Customers include:

BAE SYSTEMS

BAA
The world's leading airport company

MTA Metropolitan Transportation Authority
State of New York

babcock
Babcock Rail

AgustaWestland

LEIGHTON

LOCKHEED MARTIN
We never forget who we're working for®

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The Challenge of Project Reporting

- Your organisation/customer has a standard set of reports in a predefined format
- Your project management tools cannot produce them
  - Data comes from multiple sources
  - Need to create specific charts/graphics
- There is acute time pressure to deliver

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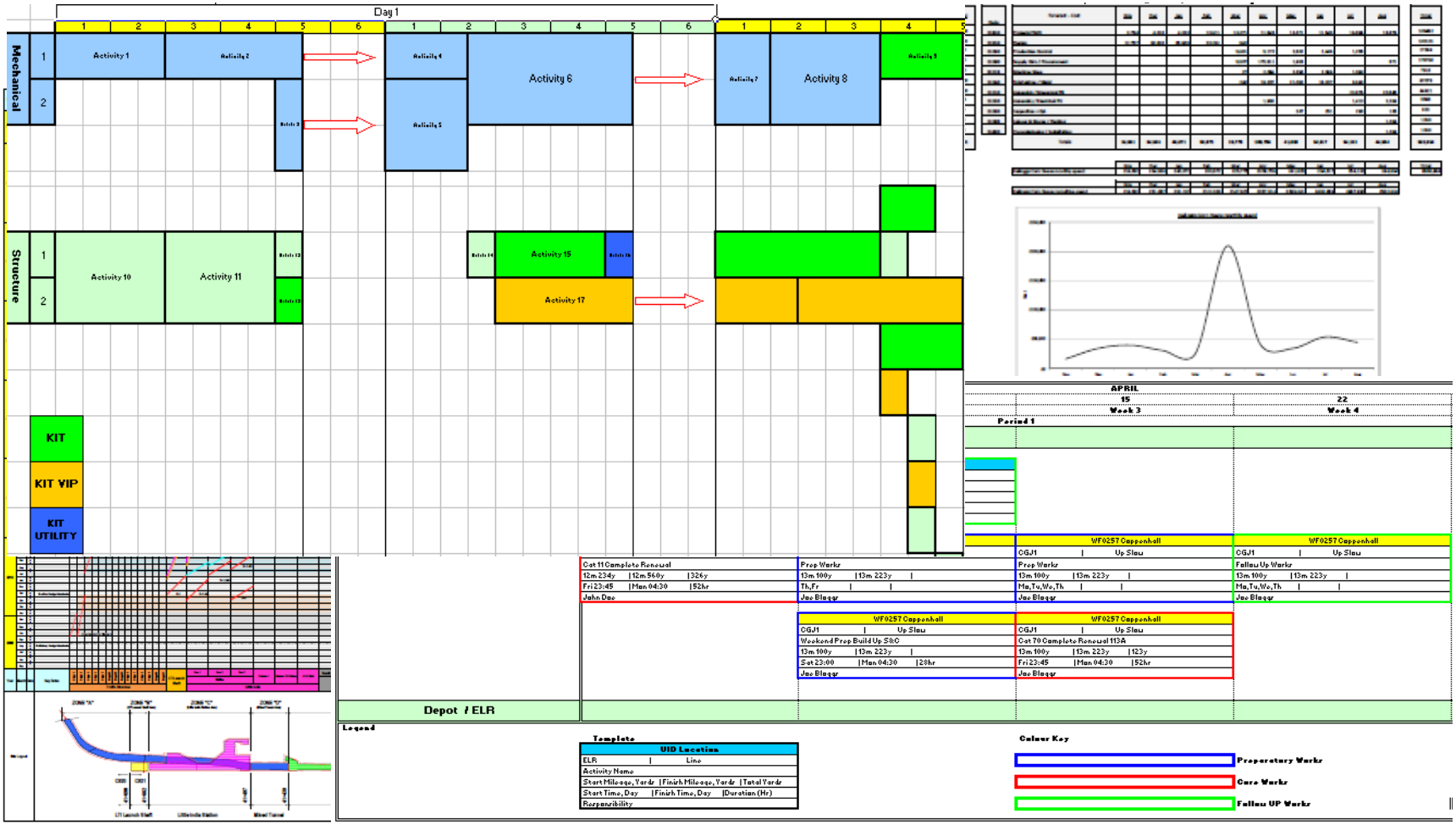
What Usually Happens Next



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Why Choose a Spreadsheet?

- Familiarity – available on every desktop
- Easy to import/paste in data
- Built in charting and graphics functions
- Bypasses the IT department

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Is This Wise?

- With Excel on every desktop, on the surface it would seem like anyone can build a spreadsheet. And yet just because someone knows how to use Word, we don't automatically assume they are a good writer.
- The task of developing the spreadsheet often goes to the person with the most relevant domain knowledge, rather than coding expertise

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Error Rates

- Large body of research now exists
- Over 80% of all spreadsheets contain errors
- Typical cell error rate (CER) is roughly 1%
- Inspection of spreadsheets by experienced users picks up roughly 50% of errors
- **The structure of spreadsheets makes it easy to create errors, and hard to identify them**

References:

http://www.strategy-at-risk.com/2009/03/03/the-risk-of-spreadsheet-errors/

A Critical Review of the Literature on Spreadsheet Errors Powell et al. , Tuck School of Business 2008

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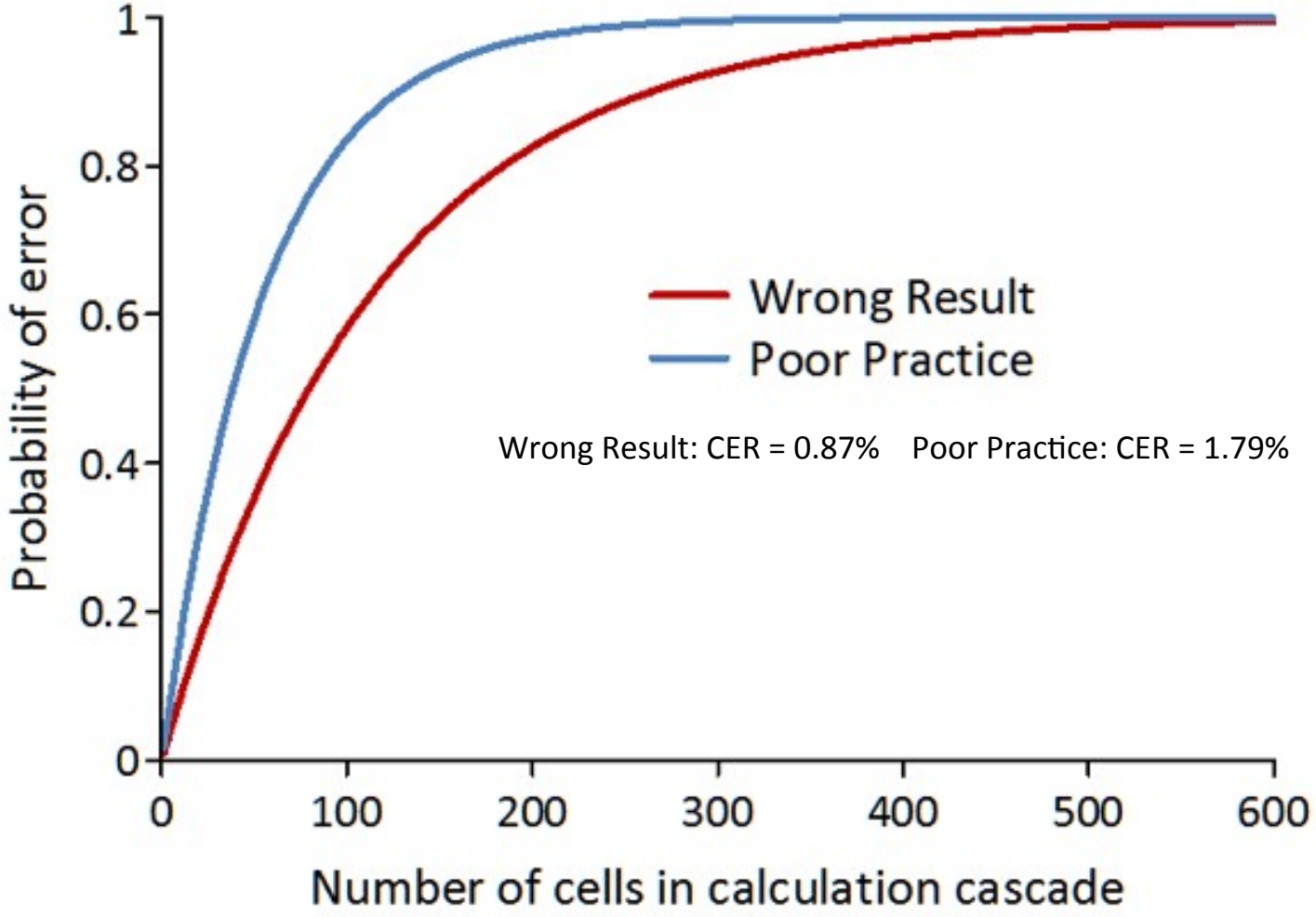
Error Cascades



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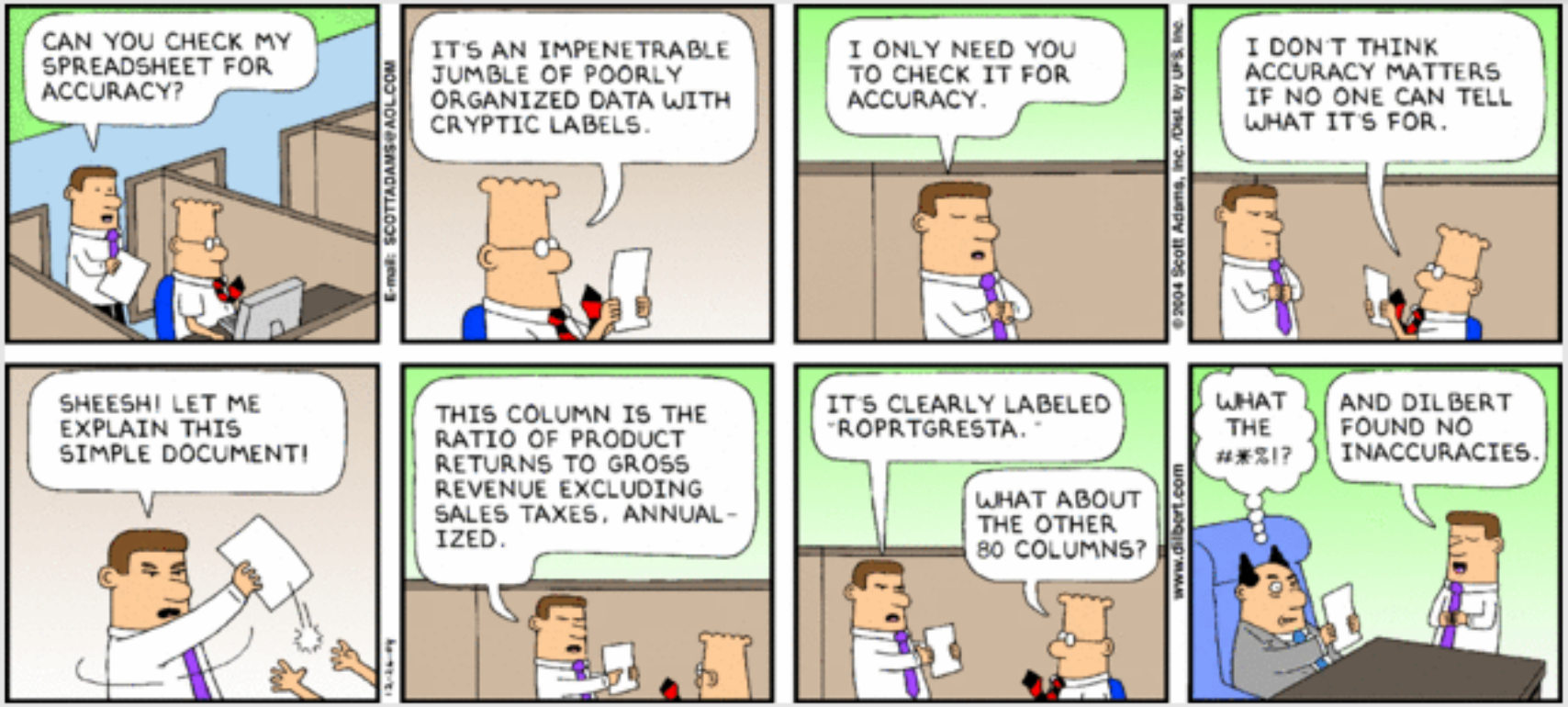
Error Checking is Hard…



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Spreadsheet Risks

- Easy to mix data and logic - makes debugging difficult
- Often created by staff with no formal programming training
- Model may never have been validated with test case data
- Logic within model (or how to use the model itself) may not be documented
- No control on integrity of data once extracted from source(s)
- Spreadsheet is often "owned" by an individual, rather than the organisation

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Other Issues

- Data is dead – just numbers, with no associated structure
- Transferring/formatting data at each period end can take a long time
- Need to decide reporting time unit in advance for time scaled data (eg weeks, months)

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Things to Consider

- Was a requirements document ever issued?
- Where did the model come from (e.g. written for this project, copied from another project, downloaded from the web?)
- Has the model ever been formally tested?
- Is there any documentation?
- What risk assessment has been performed – what would be the consequence of
  - Delivering incorrect results?
  - The “owner” moving elsewhere?

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What are the Alternatives?

- CAD System ?
- Visio ?
- Write your own ?
- ...or QEI Management Reporting

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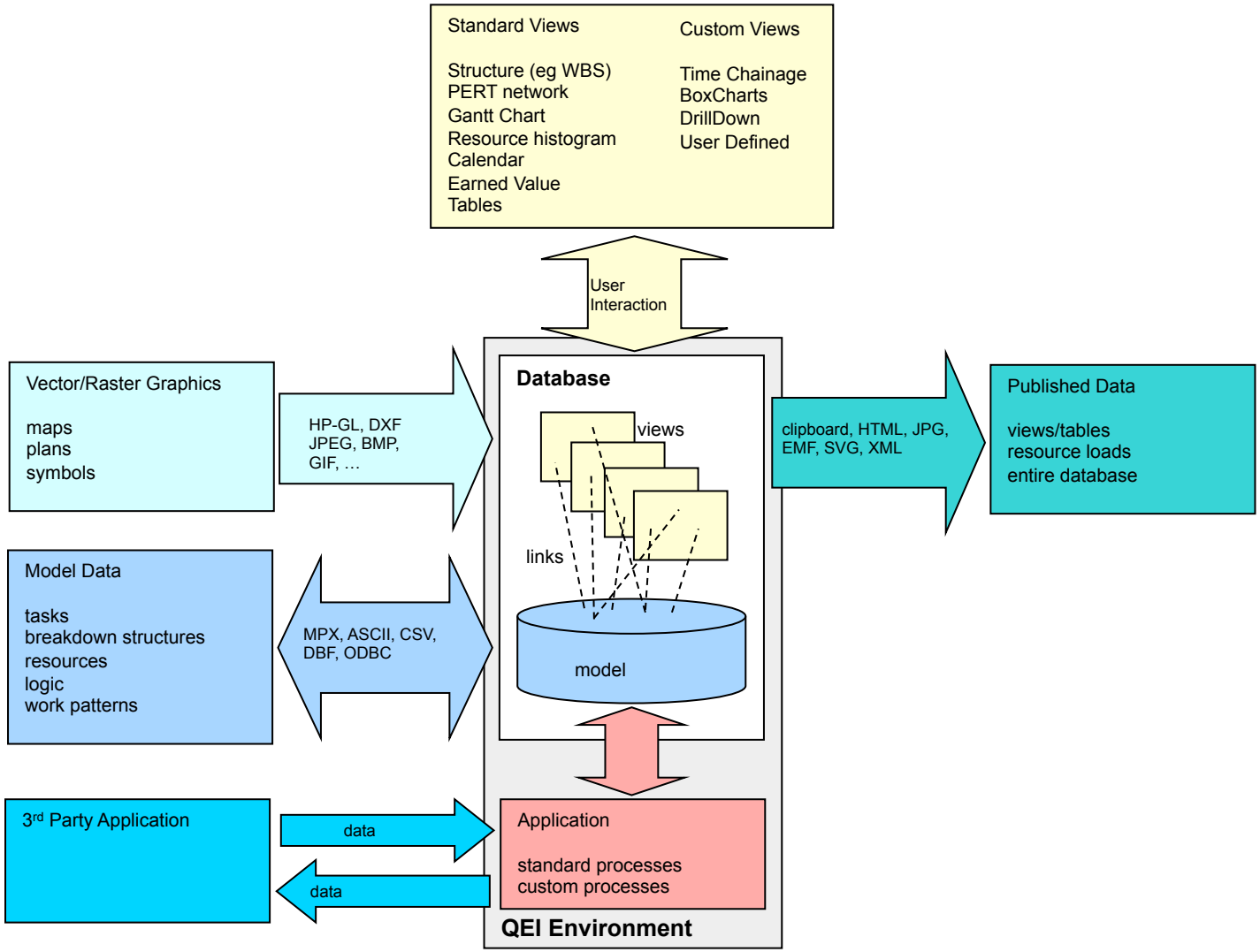
QEI Product Architecture



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How Does It Work?

- Data is imported via a wizard to create a snapshot model of the live project
- Multiple projects can be imported into a single QEI database
- Reports are built as graphical views linked to the data model
- Allows data from multiple sources to be combined into single set of reports

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What Data Is Stored?

- WBS, Tasks and Logic
- Calendars
- Resources
- Cost Rates
- Baseline Data

It is also possible to create alternate breakdown structures for reporting purposes

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Resources

- Values can be displayed as quantities or costs
- Values can be calculated for any single resource, a group of resources, or all resources
- Curves can be computed for any point in any breakdown structure
- Costs can be calculated from multiple time varying sets of rate data
- Time varying availability values can be displayed

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Key Benefits

- Process can be automated via macros
- PMO retains control of reporting
- Data model allows for “what if” modelling:
  - Schedule slippage
  - Varying resource availabilities
  - Varying resource rates
- Allows integration of data from multiple sources into a single entity

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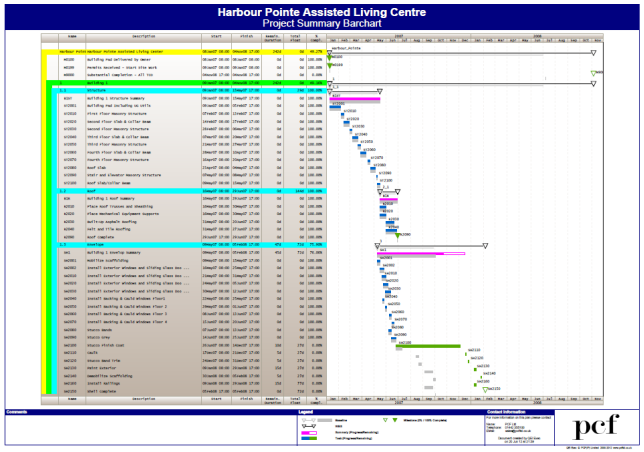
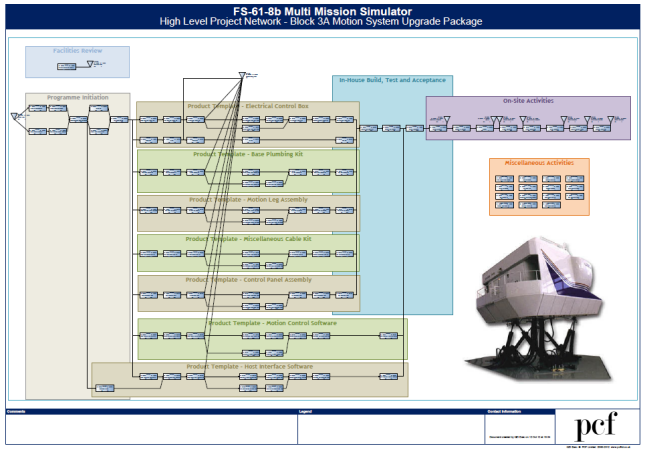
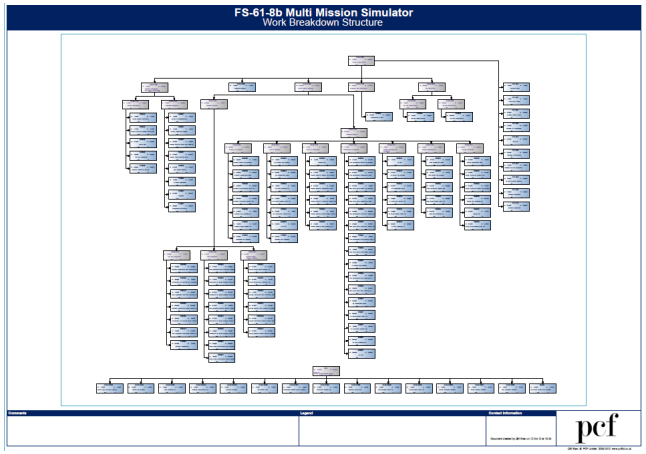
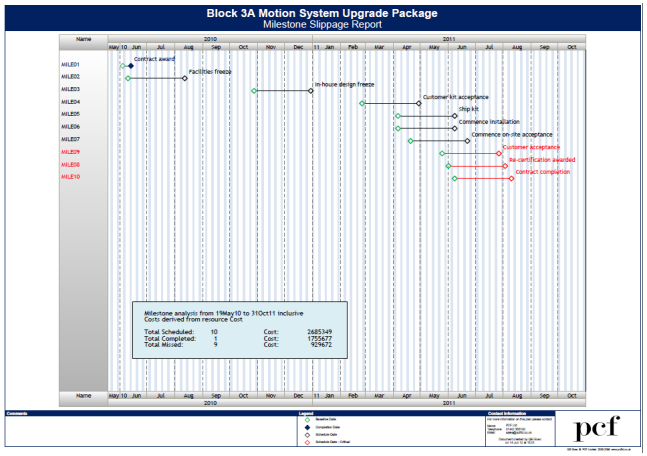
Task Reports









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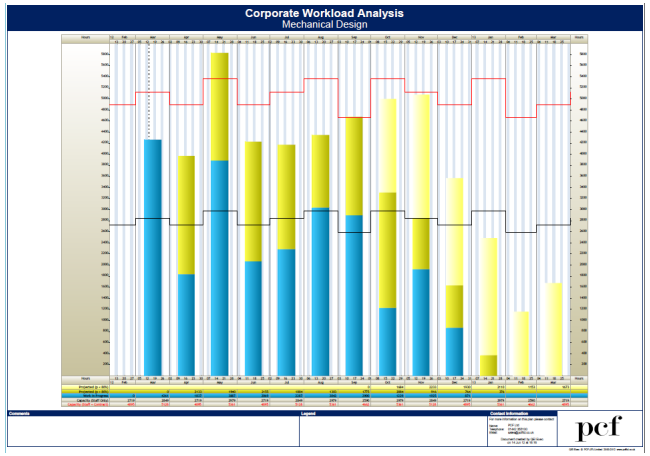
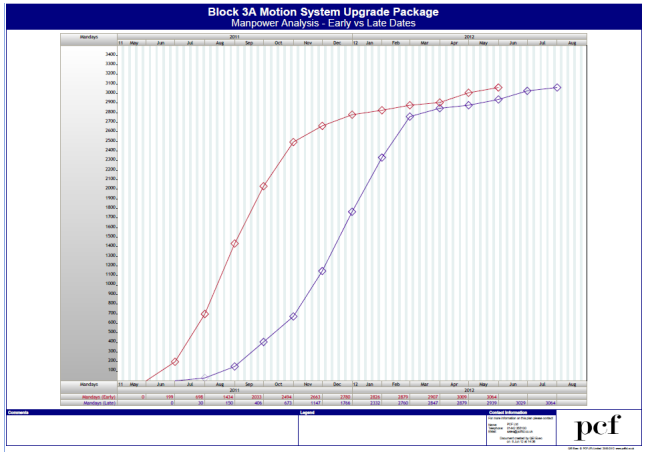
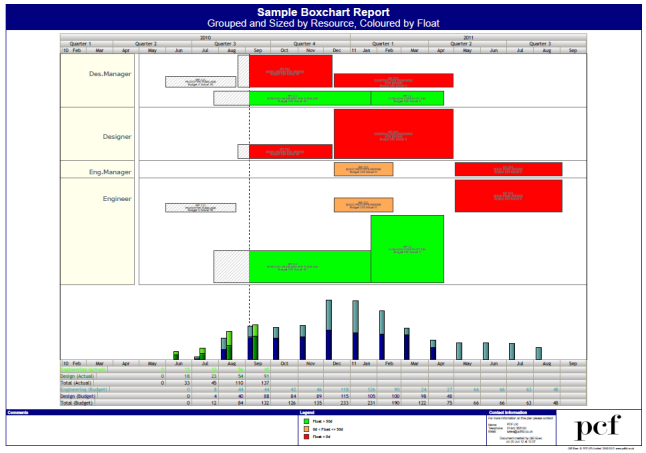
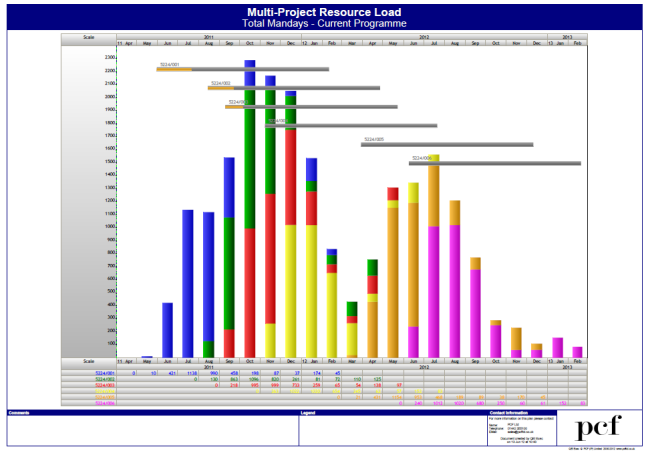
Resource Reports









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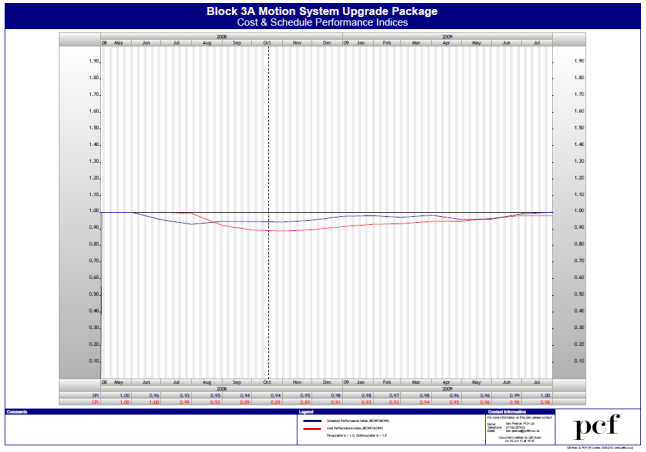
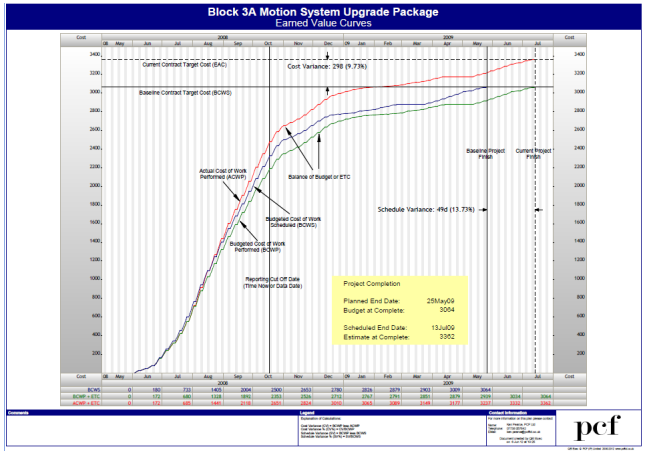
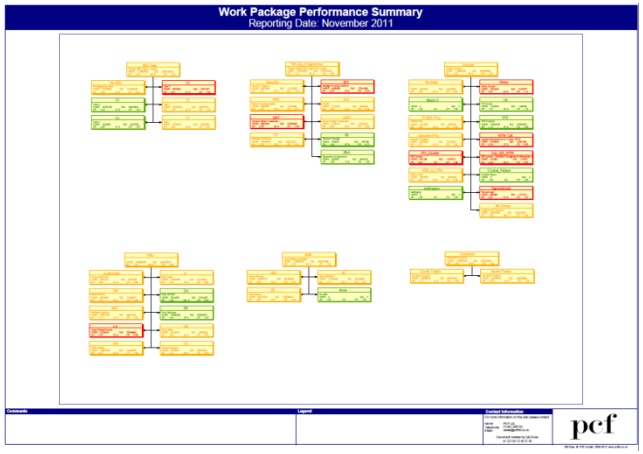
Earned Value Reports







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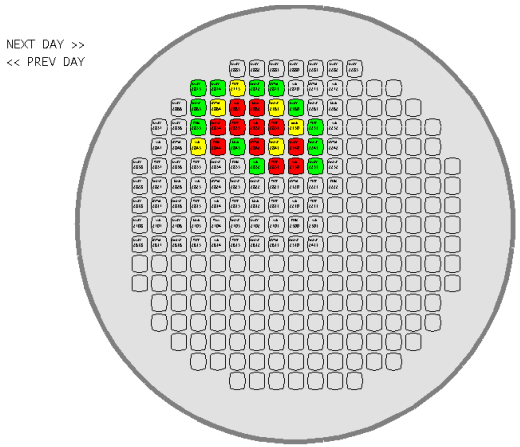
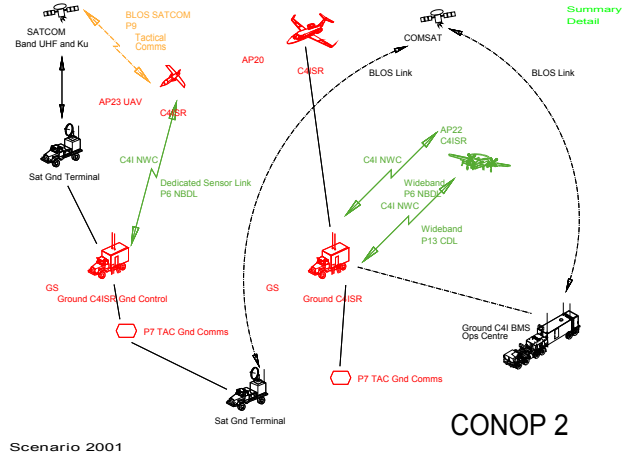
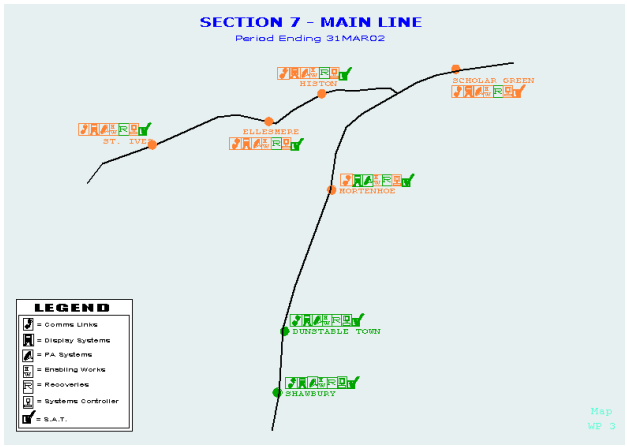
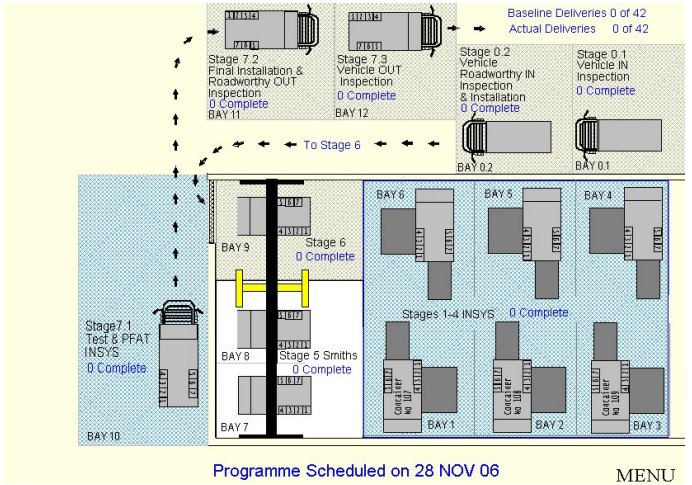
Custom Reports/Visualisations









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Case Studies

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Example 1 (Defence Contractor)

- 35,000 tasks spread over 600 projects and 200 departments
- Monthly 250 page report pack took PMO 3 days to prepare
- Use of QEI reduced report production time by 80% and introduced EV graphics for all projects

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Example 2 (Aircraft Manufacturer)

- Used QEI to visualise aircraft build configuration, generate per-shift activity charts and assess impact of new orders on capacity
- Customer quotes:
  - *"for the first time we are able to fully visualise what our staff are achieving on a shift by shift basis"*
  - *"once we had built the QEI model we could adjust the sequence of operations, significantly improving our assembly times - in some cases by up to 60%"*

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Example 3 (Water Company JV)

- 140 projects, £250m total budget
- Budgets, progess and actuals were all originally in separate Excel spreadsheets used to record subcontractor data
- Unable to determine programme performance or generate timely reports
- Now produce EV and performance reports in QEI direct from single spreadsheet – full period end import takes approximately 15 minutes

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Example 4 (International Airline)

- Significant percentage of fleet approaching 10 year overhaul, each aircraft out of service for a month plus labour costs of £1m+
- Existing inhouse systems unable to predict when checks would fall due
- QEI was used to predict dates/costs of work based on flying patterns and various maintenance scenarios, to identify most cost-effective solution

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Thank You

- Any Questions?

- If you are interested in learning more about QEI Management Reporting, please come and talk to us on our stand today, or check out our website at http://www.pcfltd.co.uk

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