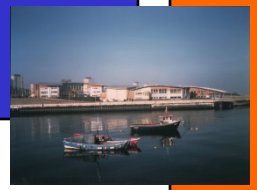
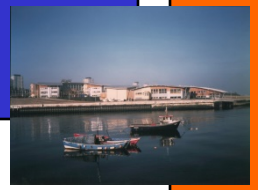


CIF 301

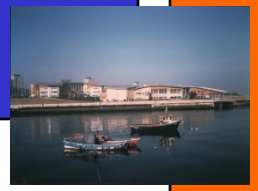
IS Project Management

IS Project Management



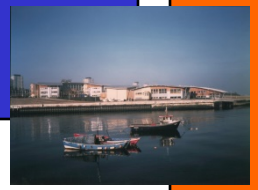
- Core Text Book
  - Software Project Management, Hughes, Robert and Cotterel, Michael, McGraw Hill, 3rd ed.
- Other Text Book
  - Project Management and Control, Meridith and Mantle
- Find Project Management text books that you are happy with

Lesson Objectives



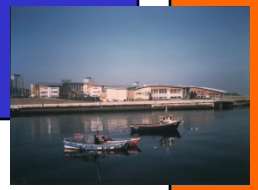
- Investigate the characteristics of ‘a project’
- Investigate what is involved in managing projects
- Assess the importance of managing a project
- Evaluate the likely problem areas within projects

What is a Project?



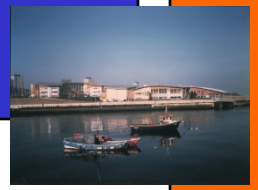
- What do you think a Project is?

What is a Project?



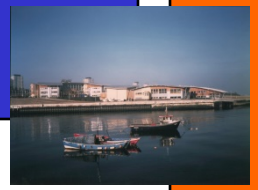
- Various definitions of a project
  - A temporary endeavour undertaken to create a unique product or service.
  - Planned activity.
  - ‘A project is a set of co-ordinated activities that contribute to the achievement of a common goal or goals.’

What is a Project?



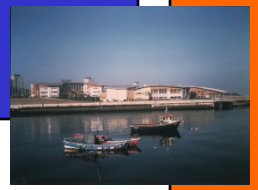
- In groups decide on four projects:
  - 1 more than 200 years old
  - 1 from around the Victorian period
  - 1 from the last fifty years
  - 1 from this century

What is a Project?



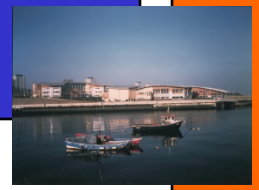
- Some projects from history:
  - Construction of:
    - » Tower of Babel
    - » Egyptian Pyramids
    - » Hadrian's Wall

Management!



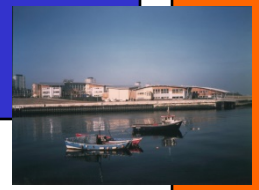
- What do you think is management?
- What is it?
- What do managers do?

Management



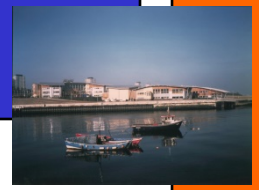
- The Open University suggests:
  - Planning - deciding what is to be done
  - Organising - making arrangements
  - Staffing -selecting the right people for the job
  - Directing - giving instructions
  - Monitoring - checking on progress
  - controlling - taking actions to remedy hold-ups
  - Innovating - coming up with new solutions
  - Representing - liaising with users, workers, etc

Project Management



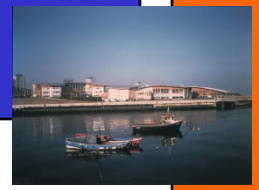
- What do you think Project Management is?
- Can you have a project without project management?

Project management



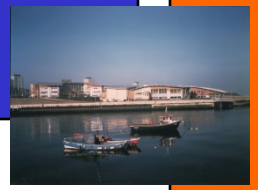
- The start of modern project management.
  - The Manhattan Project
  - Complex weapons projects mainly related to development of nuclear weapons in the 40's and 50's
  - Techniques then transferred to civil engineering
  - Then into other engineering organisations
  - More recently used by software companies

Project Characteristics



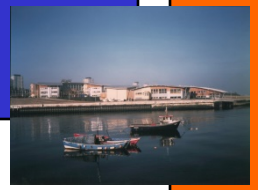
- Key characteristics of projects
  - non-routine tasks are involved
  - planning is required
  - specific objects are to be met
    - or
  - a specified product is to be created
  - the project has a predetermined time span (this may be absolute or relative)

Project Characteristics



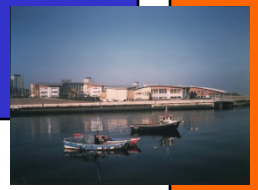
- Work is carried out for someone other than yourself
- work involves several specialisms
- work is carried out in several places
- the resources that are available for use on the project are constrained
- the project is large and/or complex

SW projects V other projects



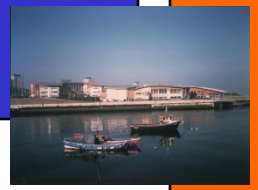
- Invisibility
  - progress not always visible
- Complexity
  - more complex per pound spent
- Flexibility
  - ease of change

SW Project Management Activities



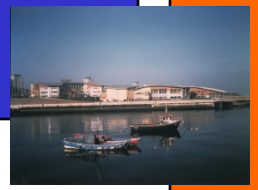
- The feasibility study
  - Is the project worth doing
  - Can it be done
  - What is the probable cost
  - Estimate of required time (real and manhours)
  - May be part of general strategic planning exercise

SW Project Management Activities



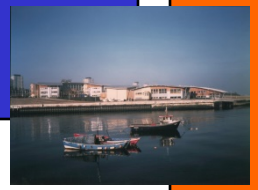
- Planning
  - Purpose of planning is to facilitate later accomplishment
  - Planning is an iterative process, from less detailed plans more complex plans are developed
  - With large projects detailed planning of the later stages would take place as they approached

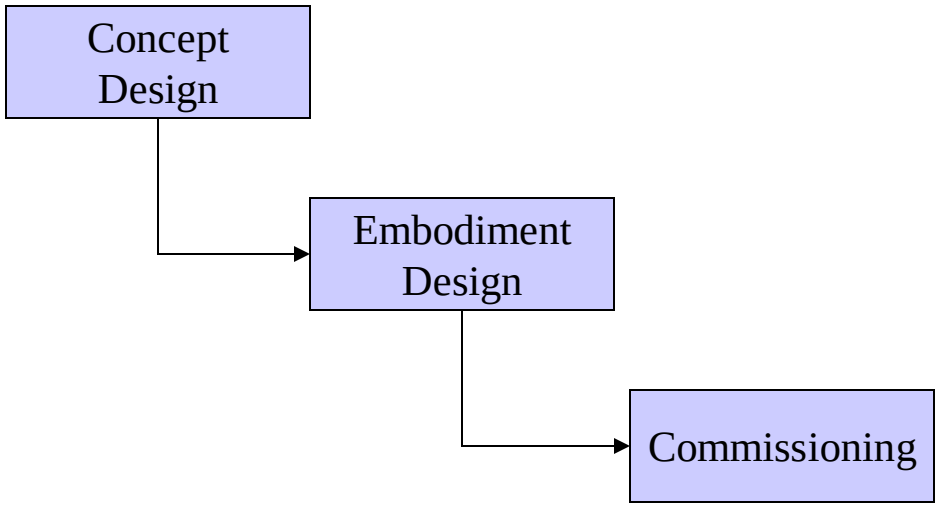
SW Project Management Activities



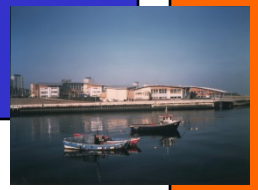
- Project execution
  - Actual method of execution will vary from project to project
  - There are various classical project life-cycles

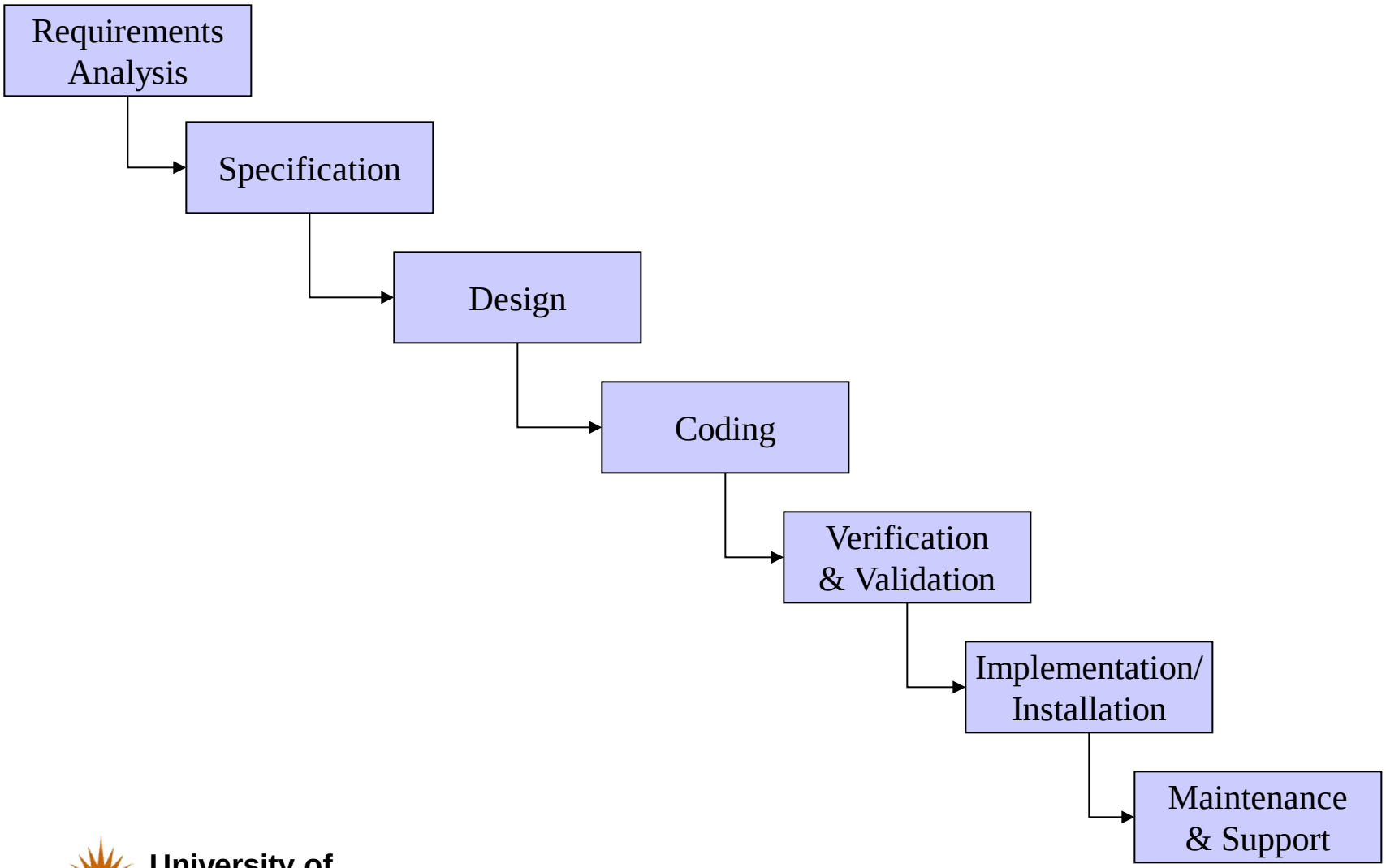
A Simple Model of Project Execution



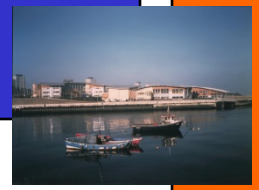


A Model of Project Execution



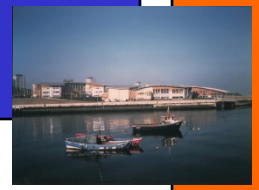


SW Project Categories



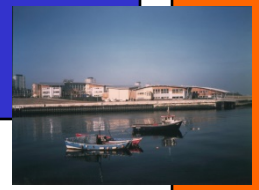
- Information system
  - interfaces with the organisation
- Embedded system
  - interfaces with the machine
- Objective projects
  - aim is to meet a set of objectives
- Product projects
  - aim is to produce a product

Potential problem areas



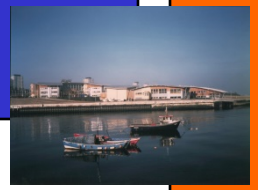
- All projects will have potential problem areas
- An understanding of
  - what the potential problems areas are
  - when the potential problems are liable to occur
  - why the potential problems could happen
  - how the potential problems can be averted

Controlling the project



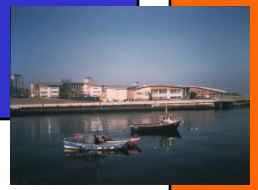
- A project that is not controlled will soon become out of control
- The means of control
  - Objectives - sets out what has to be achieved
  - Metrics - measures what has been achieved
  - Sub-goals and key result areas (KRAs) - provides milestone on the way to achieving the objectives

Project stakeholders



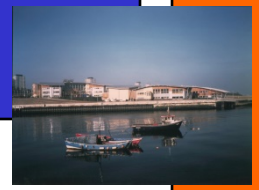
- These broadly fall into three groupings
  - Internal to the project team
  - External to the project team but within the same organisation
  - External to the project team and the organisation

Requirement specification



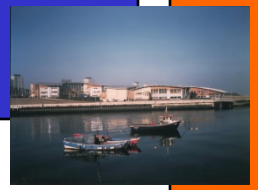
- Functional requirements
- Quality requirements
- Resources requirements

Information and control



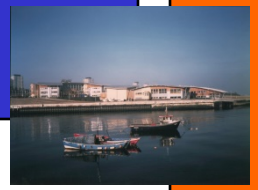
- Strategic
  - high level
  - generally the role of senior management
  - about setting objectives
- Tactical
  - ensures objectives are fulfilled
  - a middle management role
- Operational
  - the day-to-day work of getting the job done
  - generally a junior management role

SW Project Management



- What is it, do you think, that is different about software projects that might make them less responsive to project management techniques and more likely to fail?

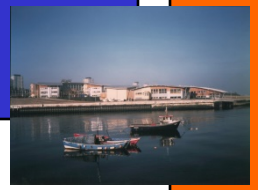
SW Project Management



Some reason for Software project problems:

- SW is almost invisible when part of a ‘bigger’ project
- progress is not always visible
- software is generally has a lot of complexity
- software projects get more complex per pound spent
- flexibility is an expectation of software projects
- specifications can often change to match external pressures.

Concluding remarks



- What is a project?
- What is management
- What is project management