Project Planning Cheat Sheet

by Natalie Moore (NatalieMoore) via cheatography.com/19119/cs/5990/

Prior to planning

Business Case should be set out. Outlines how projects benefits outweigh costs

Project objectives should be ID'd and agreed. Objectives define successful project outcomes

Activity planning

Work out activity order. Draw up an activity network diagram. There are two ways:

1. Activity on node *used in this cheatsheet*

- Activities are represented on nodes
- Used by most PM tools inc MS Project

2. Activity on arrow

- Activities are represented by arrow

Identifying Milestones

Events which do not take up time or energy.

Estimating elapsed time

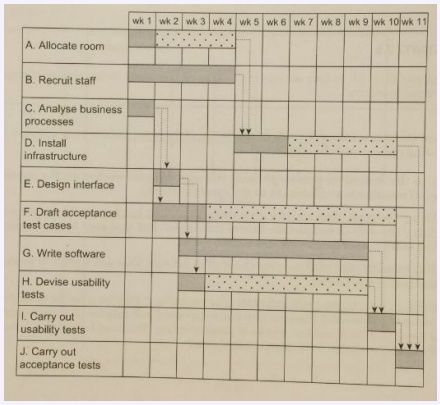
- Estimate how long each activity will take
- Add these to the nodes in your diagram
- If task finishes on day 4, the next task should start on day 5
- Float is leeway time between activities

Critical path (CP)

Chain of activities from beginning to end with no float. A CP activity delayed then project delayed. Activity span = total period during which the activity has to take place

ES = Earliest start, EF = Earliest finish, LS = Latest start, LF = Latest finish

Gantt Chart Example



Useful equations

Earliest finish = earliest start + duration

Latest start = latest finish – duration

Latest finish = earliest of 'latest start' activities dependent on the activity

Float = latest finish – earliest start – duration

Activity span = latest finish – earliest start

Product based planning

1. ID project deliverables: project outputs delivered to client. Tangible.

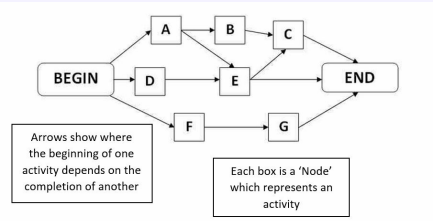
2. ID intermediate products: created during project, but not delivered to client.

3. List deliverables or display them in a work breakdown structure

4. Produce definitions for stakeholders

- ID or name of the product
- Description
- Product/s that need to exist before this one, those it is derived from
- Components that make up the product
- Quality criteria which explain how product will be judged as satisfactory

Activity on node example



Each node then given information in image 'Layout of an activity node'

Resource allocation

Resources = raw materials, staff & equip

For each activity ID the resource type needed

For HR identify role to carry out the task

On activity network diagram for each node note resources needed

Problems you may encounter

Not enough staff available – resource clash

- Use the float to delay until staff available
- Delay start even though float used up. Will delay completion
- Buy in staff to cover deficiency. ^ cost
- Split into sub activities to spread evenly
- Need to keep workflow steady

Put into a form that everyone will understand e.g. Gantt chart

- Activities left hand side
- Calendar units along the top
- Block symbols used to show when activities will be taken out
- Free float shown in light blocks
- Arrows show dependencies

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Work / activity based planning

Very similar to 'Product based planning' but replace the products with activities

Product flow diagram (PFD)

Part of the **Product approach**

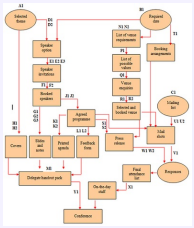
Visual representation of order in which a sequence of products is created according to product based planning principles

Should contain all of the products of the Product Breakdown Structure (equivalent to a Work Breakdown Structure) - the PFD should be kept simple

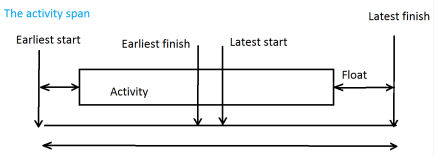
Flows top to bottom and left to right

Looping back is not allowed

Product flow diagram (PFD) - Example



The activity span



Layout of an activity node

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