Mythical Man-month (Ch1,2)

Ch 1. The Tar Pit

- The Programming Systems Product

A Program	A Programming System (Interfaces System Integration) (Costs at least three times)
A Programming Product (Generalization, Testing, Documentation, Maintenance) (Costs at least three times)	A Pragramming System Product (Costs at least nine times)

- The Joys of the Craft
    - sheer joy of making things
    - pleasure of making things that are useful to other people
    - complex puzzle-like objects → subtle cycles, playing out the consequences of principles
    - joy of always learning
    - delight of working in such a tractable medium
- The Woes of the Craft
    - one must perform perfectly
    - other people set one's objectives, provide one's resources, and furnish one's information
        - 다른 사람의 작업물에 dependency를 가지게 될 경우
    - finding nitty litle bugs (spending lots of times finding trivial bugs)
    - debugging has a linear convergence
    - the product over which one has labored so long appears to be obsolete upon (or before) completion

Ch2. The Mythical Man-Month

Why lots of software projects have gone awry for lack of time?

1. poorly developed estimation techniques (근거 없는 all will go well)
2. estimationg techniques fallaciously confuse effor with progress
3. lack the courteous stubbornness of Antoine’s chef
4. schedule progress is poorly monitored
5. adding manpower, which makes worse

- Optimism

  : A large programming effort consists of many tasks, some chained end-to-end. The probability that each will go well becomes vanishingly small.

- The Man-Month

  Cost does indeed vary as the product of number of men and the number of months.

  -Progress does not.

  - Men and months are interchangeable commodities only when a task can be partitioned among many workers ‘with no communication among them’.
  - When a task cannot be partitioned because of sequential constraints, the application of more effort has no effect on the schedule.
  - In tasks that can be partitioned but which require communication among the subtasks, the effort of communication must be added to the amount of work to be done.
    - training
    - intercommunication
      - more complex(communication), more effort.
  - adding more men then lengthens, not shortens, the schedule.

- Systems Test
  - 1/3 planning
    1/6 coding
    1/4 component test and early system test
    1/4 system test, all components in hand
  - Gutless Estimating

        - need to develop and publicize productivity figures, bug-indicence figures, estimationg rules, and so on
        - individual managers will need to stiffen their backbones and defend their estimates with the assurance that their poor hunches are better than wish-derived estimates
    - Regenerative Schedule Disaster
        - Adding manpower to a late software project makes it later.