TIM 105/205, LECTURE #15 (11/14/13)

Agenda:

- Product platform → product architecture
- Product (platform) strategy
- HW #7 (Project Management & Product Management for Software products)
- [TIM 125] and CMPE 150
- 2 Internships available in UCSC IT Dept.
  - Resume
  - Unofficial
- Project, Phase 2.5
Product platform

HP's most successful product was/is the Thermal Ink Jet (THINK) jet printer.

What is the core technology element(s) of this product → the THINK JET

What are the supporting technology elements

- Print head (to hold a row of nozzles)
- Interconnect cable (to connect the print-head) to the motor/drive electronics
- Drive electronics (to control printing)
How do you create a product platform:

1. Start by determining or creating* the core or defining technology elements, unique to the product.

2. Determine the supporting technology elements, necessary to obtain a functional (working) product.

--- See THINK JET example on the previous page.

Note: A product platform is not a product, and is used to create product lines (or the product family) to serve different market segments.

Prescription:
For each target market segment,

Use the product platform to create the appropriate product line to serve that segment.
Example: THINK JET

- Product Line for the Consumer
  - cheap
  - low performance (slow, print quality)

- Product Line for the Enterprise
  - Rugged
  - High performance (fast, high quality, ...)

All these products use the same product platform.

Exercise: Project:

- Completed conceptual design
- Prototyping Space/Strategy
- Product platform & product lines
  + backlog from Phase 1

Design Review on Tuesday next week

Project planning for your actual week-to-week project work (Activities matrix, GANTT, ...)

For the 10 weeks of Fall 2013
Example: Personal computer product platforms (~ mid 80s to early 90s)

- IBM Product platform
  - MS DOS OS
  - INTEL 8086/88 chip
  Core or defining technology elements
  "open-source" or horizontal platform
  Very successful in obtaining large market share (because of the "network effect")
  But is easy to "clone";
  DELL, Compaq

- Apple Product platform
  - Proprietary Graphic User Interface OS
  - Motorola 68000 chip
  "Proprietary" or "vertical" platform
  Fairly successful, sustainable; but does not succeed in growing in the long-term
How DELL captured the Personal Computer Market in the 90s and 00's

New entrant: 1

DELL: borrowed the IBM product platform

Suppliers

IBM

Apple

Buyers

TMM125
streamlined the supply chain dimension:

Build-to-order (Just-in-time manufacturing)

Downside:

business model & not sustainable

Captures market share
Summary:

What is a product platform?

- A product platform is not a product.
- A product platform is a structured collection of two types of technology elements: defining (core) and supporting. These are common across a range or family of product lines.
- A product platform is the "highest common factor" of relevant technology elements across all products using that platform.

Exercise: Determine the product platform:
- Defining (Core) tech. elements
- Supporting tech. elements

for your own Cell-phone
Conceputal sketch showing product platform & the product lines

Market segments (INTEL)

Segment 3 ("High-end")

Segment 2 (Mid-range)

Segment 1 (Low-end)

Also read the chapter on "Product Architecture" in the text, U&E PD&D.