INTEL CASE

Intel was founded in 1968 by Gordon E. Moore and the late Robert N. Noyce, who in 1957 invented a form of the integrated circuit. The firm was an early leader in DRAM or dynamic random access memory. In 1971, it invented the microprocessor which ultimately won IBM's approval and became the industry standard. The chip that powered the first 1981 vintage IBM PC was called the 8086. The X86 family now includes:

- the 286 introduced in 1982
- the 386 introduced in 1985
- the 486 introduced in 1989.

The X86 name was extensively used by computer manufacturers in their naming strategy. Many computer manufacturers, for example, would use 486 or 4 in their product names to communicate to the customers exactly what microprocessor was inside. The name also served to imply that the software would be backward compatible with computers that used prior X86 microprocessors. The Dell product line included:

- Dell Dimension 386SX/25 (386SX running at 25 MHz)
- Dell 386/25 (386 running at 25 MHz)
- Dell 486D/20 (486 running at 20 MHz)
- Dell PowerLine 450DE (486 running at 50 MHz),

The COMPAQ line included:

- COMPAQ Prolinea 4/33 (486 running at 33 MHz)
- COMPAQ DESKPRO/i486/33 (Intel 486 running at 33 MHz)

In 1989, Intel had sales of $3.1 billion of which $1.2 billion was in microprocessors. In 1992, sales were projected to reach $5.5 billion with $3.1 billion in microprocessors. The firm in 1992 also made other chips ($1.4 billion), memory flash memory ($200 million), PC enhancement products ($380 million), and computers ($530 million). Profits in 1992 were projected to be around $800 million, of which microprocessors generated more than their proportionate share.

In the 1992 annual meeting Dr. Craig Barrett, Intel's executive vice-president, noted that the Intel strategy has been and continues to be based upon five key assets and skills. The first is Intel's silicon technology capability which has enabled Intel to increase transistor counts and improve production efficiency. The second is the X86 architecture which has become an industry standard. In the early 1990s, the X86 standard commanded around 85% of the PC and workstation market. Motorola had most of the balance while chips using RISC architecture had a share that was not much over 1%. More operating systems were based on the Intel X86 architecture than any other. The third, the design technology capability, allowed Intel to increase the microprocessor power and to introduce product derivatives. In 1992 over 30 different

products such as speed doublers and three volt devices were planned to be offered in response to customer requests. The fourth is customer service. The Intel goal was to be rated “excellent” by customers and thus to achieve a reputation as being superior on this dimension. Employee compensation was tied to corporate performance in this area. The fifth was the recognition of the Intel and Intel Inside brand names.

In early 1991, Intel was experiencing competitive pressure. Advanced Micro Devices was already on the market (by the summer it had 15% of the PC market) with its AMD386DX chip clone. On the horizon was Chips and Technologies which was expected to announce a family of 386 clones in the Fall of 1991. Unfortunately, Intel did not obtain trademark protection on the X86 series and thus competitors were free to use 386 in their brand names. The products of these firms often differed from that of Intel's. In fact, AMD's strategy was to hold the price but to offer more features and performance than the Intel versions. Similarly, Chips and Technology's chip was 10% faster than Intel's. The result was customer confusion as to what exactly the 386 label meant.

To respond to the competitor pressure and customer confusion, Intel in the Spring of 1991 begin the “Intel Inside” program. It was aimed at creating a PC-user preference for PCs with Intel-based microprocessors, especially the 386 series. The program involved Intel advertising and the support of the advertising of computer firms willing to use the “Intel Inside” logo. In 1991 the logo appeared on approximately 3,000 pages of the advertising of computer firms. This number was estimated to grow to over 5,000 pages in 1992. In 1992, Intel budgeted around $100 million for the campaign. The campaign actually originated in Japan where Matsushita used it as a way to gain a hi-tech credibility for its computers. Japan is a country in which the prestige and visibility of corporate names is extremely important.

The “Intel Inside” program was not without its difficulties.

> First, there was some resistance. For example, COMPAQ initially felt that the logo would inhibit its own image as being different from the clones--they later decided to add the logo.
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> Second, there was potential confusion about what “Intel Inside” meant. The logo obviously referred to microprocessors such as the 386 and the 486. However, Intel also made a host of products that went inside the computer such as fax boards, modem boards, multimedia components, math co-processors, and network components. Would these items be helped or hurt by “Intel Inside,” which refers to microprocessors? Might not consumers assume that Intel made only microprocessors?
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> Third, the name Intel refers both to a corporation and to branded products, namely microprocessors and many others. Does that cause confusion? Intel as a corporation means a large reliable firm that will not disappear or create new microprocessors that will obsolete your old ones. What should Intel mean as a product rather than a corporation?
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> Fourth, how should the program be judged? With respect to awareness it seemed to be doing its job. However, how it should be evaluated was unclear.

In the Fall of 1992, Intel was ready to announce the “586" chip which represented a significant performance advance over the 486 chip. One option was to call it i586 or Intel 586. That would build upon the X86 equity that had been developed and would fit with the “Intel Inside” thrust. Customers were certainly expecting a 586 generation and understood generally what it meant.

Intel, however, selected the second option: to create a new brand name. The logic was that a new name would be required to regain control of the Intel microprocessor. In addition to confusion as to what a 386 was, some competitors were labeling as 486 products that were really 386. It seemed likely that they would label as 586 products that were really 486. The customer confusion would thus increase and the brand equity of Intel and its OEMs would be affected. As a result, customers would increasingly be unable to discern genuine Intel-based systems. There was no way for Intel to prevent this abuse of the X86 naming scheme. A new name that was trademarkable would be controlled by Intel and would enable them to create equity for Intel and its OEM customers that would be protected.

Candidate names were obtained from customers, Intel employees, and naming firms. The name that was selected from over 3,500 possibilities was Pentium, which has, at least to some, the connotation of fifth generation.

One of Intel's goals was to protect the new name so that it would not also be lost. Toward that end the following guidelines were put into place:

Never use the trademark as a plural or verb
Wrong--Use Newchips to enhance your software.
Wrong--Newchip your computer
Usage in OEM system names is not permitted
Wrong--The CMC Newchip 500
OEMs may reference inclusion of Newchip CPU
Right--The CMC 550 contains the Intel Newchip microprocessor.
ISVs may reference software applicability for Newchip CUU
Wrong--Newchip Funsheet
Right--Funsheet for Newchip CPU based computers

Questions for discussion

1. In the Spring of 1991 the Intel Inside campaigning was started, and $100 million was budgeted in 1992. Was that worthwhile? Why would COMPAQ participate in the program? Dell? How would you evaluate it?

2. In the Fall of 1992, the “586" chip was ready. Would you call it Intel 586 or i586 or would you start over with a new name? What are the pros and cons of each alternative?

3. Assume a new name alternative was desired. What criteria for a new name would you develop? Evaluate Pentium with respect to these criteria.

4. How would you introduce the new name?

5. In 1989, how much would you have paid for the rights to the X86 name? How would you structure an analysis to generate a defensible number?

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Web sites that may have relevant information

http://www.intel.com
http://www.amd.com
http://www.chips.com/
http:///www.ibm.com
http:///www.dell.com
http://www.compaq.com