

## **Preface**

[Lin Chao](#)

Editor

*Intel Technology Journal*

This Q1 2001 issue of the Intel® Technology Journal covers the very old and the very new at Intel. The first paper reminisces about early chip development efforts at Intel. Have you ever wondered why Intel's microprocessors were named 8086 or 80286 or what the 8 means? Read the first paper to find out. The authors have over 80 years of Intel experience between them, and they are still going strong.

So what's new at Intel? The Pentium® 4 processor. Here is a short list of what makes this such an exciting product. It runs at frequencies of 1.30, 1.40 and 1.50GHz and incorporates new hyper-pipelined technology that doubles the pipeline depth to 20 stages, which significantly increases processor performance and frequency capability. Its rapid execution engine pushes the processor's arithmetic logic units to twice the core frequency, giving higher execution throughput. Moreover, it has a 400MHz system bus, Streaming SIMD Extensions 2 that extend MMX™ technology and SSE technology, and an additional 144 new instructions. The six papers in this issue, written by Intel's engineers, will give you an in-depth look at this new processor.

Also, starting with this issue you will find a new feature in the Intel Technology Journal. Each issue will have a selected list of papers published by Intel's engineers and researchers in the previous three to four months. You can use this list to find papers of interest to you. The list is located in the left top navigation bar under "Past Journals."