

## Semiconductor Industry Consultants

There are a number of consulting "houses" and independent, one-man consultants serving the semiconductor industry, mostly in the U.S.

Consultants tend to specialize in certain areas, with most of the one-man types generally acting as experts in narrow technical areas—such as bipolar process implementation or phase-lock loop design, etc. Many times, they have worked in the industry for a number of years and obtain most of their clients through personal referrals. An overview of semiconductor industry consulting services is shown in Table 4-8.

If a company finds it needs a technical expert in a narrow field like "high-voltage isolation techniques," there is generally no industry directory in which to look for a likely candidate.\*

The larger consulting houses, like the publishers of this book, also specialize to some degree in the specific services available to clients. However, with many more staff members of various backgrounds, a larger consultancy is more likely to have staff members conversant with a particular problem area.

From time to time, even the larger consultancies have clients with problems that cannot be suitably addressed by members of their own staff—for technical reasons or simply workload. Consequently, most such houses have their own outside (one-man) consultants, or "stringers" as they are sometimes known. Generally, confidentiality agreements bind these outside consultants so the client is protected from "leaks" concerning his future product or marketing plans.

\*However, the Professional and Technical Consultants Association publishes a directory of its members, many of whom are active in the semiconductor industry. For details, contact PATCA: 1190 Lincoln Ave., #3, San Jose, CA 95125 (Tel: 408-287-8703).

A number of major U.S. corporations (IBM, DEC, Intel, H-P and others) are funding development of a "silicon compiler" at California Institute of Technology in Pasadena. The idea is to ultimately provide complete CAD services for an IC entered to the computer in systems schematic or other symbolic form. The final product, however, is several years away.

A similar program at Massachusetts Institute of Technology in Cambridge has taken a different approach. The MacPitts project at MIT appears to be significantly different, in that it uses a standard design language (LISP) that describes digital processes rather than requiring symbolic gate-level diagrams for input. First demonstrations of the MacPitts approach are expected by 1983. If the project proves successful, the direction of IC design could change drastically by mid-decade. Similar attempts in the past have not succeeded in the commercial world.

1. TECHNICAL CONSULTING  
ONE-MAN CONSULTANTS  
CONSULTING HOUSES  
LABORATORIES/DESIGNERS  
"THINKTANKS"
2. MARKET CONSULTING  
SUBSCRIPTION 'INDUSTRY SERVICE'  
PROPRIETARY PRODUCT MARKET RESEARCH
3. MANAGEMENT CONSULTING
4. TRAINING/SEMINARS
5. MARKET REPORTS/MONOGRAPHS
6. NEWSLETTERS  
NEWS SUMMARIES  
TECHNICAL INTERPRETATION  
MARKET DATA  
COMPANY PROFILES  
INDUSTRY 'GOSSIP'

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Table 4-8  
Semiconductor Industry Consulting Services