

BYTE

JANUARY 1991

A MCGRAW-HILL PUBLICATION

THE BEST PRODUCTS OF 1990

*67 winners selected
by the BYTE editors
and columnists*

Eliminate Disk Bottlenecks

Inside the Intel i860

The Gilbert Hyatt Controversy

Ethernet—10 Years After

The FlexOS Operating System

"Genetic" Algorithms

PLUS:

Turbo Pascal 6.0

Word 5.5 & Word for OS/2

Compaq SLT

Remote-Control LAN Software

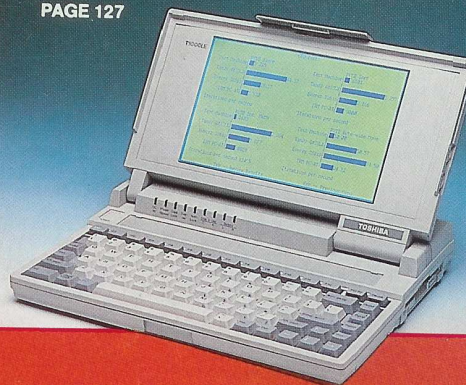
Apple's new A/UX

MacRenderMan

Folio Views 2.0 & Agenda 2.0

Toshiba's New T1000LE

PAGE 127

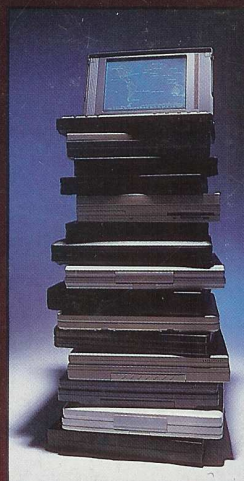


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FEBRUARY 1991

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15 NOTEBOOK COMPUTERS

RATED FOR:

Size and Weight
Battery Life
Display Quality
Data Storage
Keyboards
Durability
Expandability

PAGE 148

TOMORROW'S Laptops

- PEN, VOICE, TOUCH INPUT
- NEW DISPLAYS • NEW CHIPS
- NEW STORAGE DEVICES
- NEW VISIONS

Xerox PARC's Newest GUI:
The Information Visualizer

IBM's XGA Graphics

The New ARCnet Plus

Queuing Analysis

PLUS:

Excel 3.0

OS/2 "Lite"

Adobe Illustrator 3.0

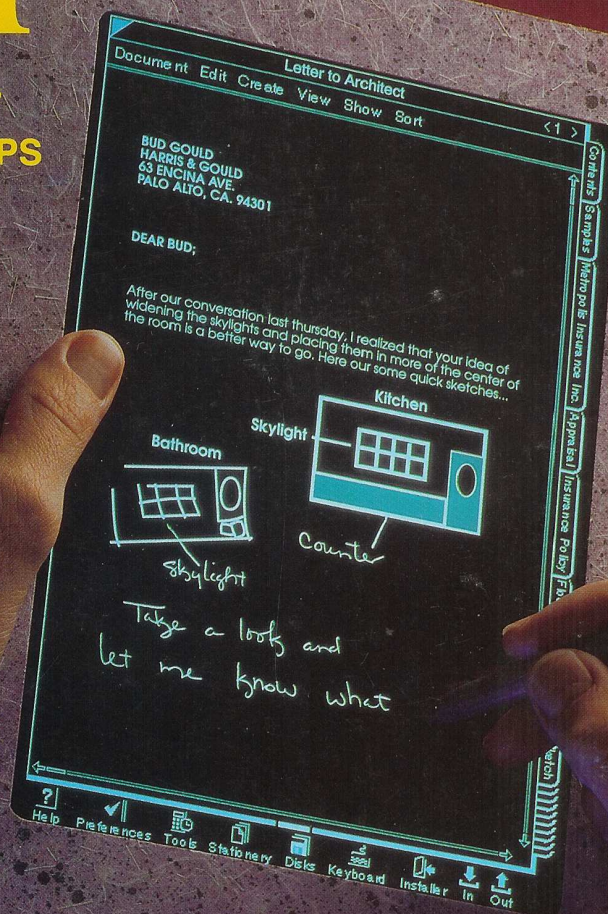
Stacker

OOP Libraries

Sparcstation IPC

RasterOps 1024MC Colorboard

Storyboard Live!



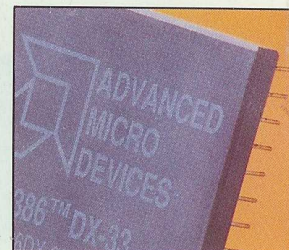
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AMD's
Clone
386

Page 44



STATE OF THE ART

Network Management

Taming the Ill-Tempered LAN

Undocumented DOS
Smart Memory Chips
Inside IDE Drives
N. Wirth's "Oberon"

Sony's Unix Portable
Winpro/3
Persuasion 2.0
SideKick 2.0
32-bit Ethernet Cards
DesignCAD Mac
Newtek's Video Toaster
The "Wallet-Friendly" Mac IIsi



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Taming
A Sea of
Paper

Page 156



An insider's look at computing
in the troubled U.S.S.R.

Soviet Computing

Intel Speaks:

—the "Micro 2000" Project page 131

—a first look at a 100-MHz i486 page 27

Mac Video Revealed

Under SPARC's Hood

How to Network Windows 3.0

Pournelle's Annual Awards

PLUS

3 Laptop Pointing Devices

5 Object-Oriented Script Languages

ALR's Six i486 Multiprocessors

IBM's Speedy i486-Based Portable

GeoWorks:

Windows for the Rest of Us?

SPC's "InfoAlliance"



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Zenith's
Z-486/25E:
5 Times
Faster
than VGA

Page 54



**HP 95LX: A complete PC,
plus Lotus 1-2-3, for under \$700**

Best Palmtop Ever?

Future Documents:
Combining text, graphics, voice, and more

Drowning in Data? See page 150

Borland's ObjectVision

Low-Cost Apple Laser Printer

Mac 3D: Infini-D

Two Portable Printers

PLUS

5 X Terminals

3 LAN UPSes

QEMM vs. 386Max

Mac Image Compression

MultiScope Debuggers

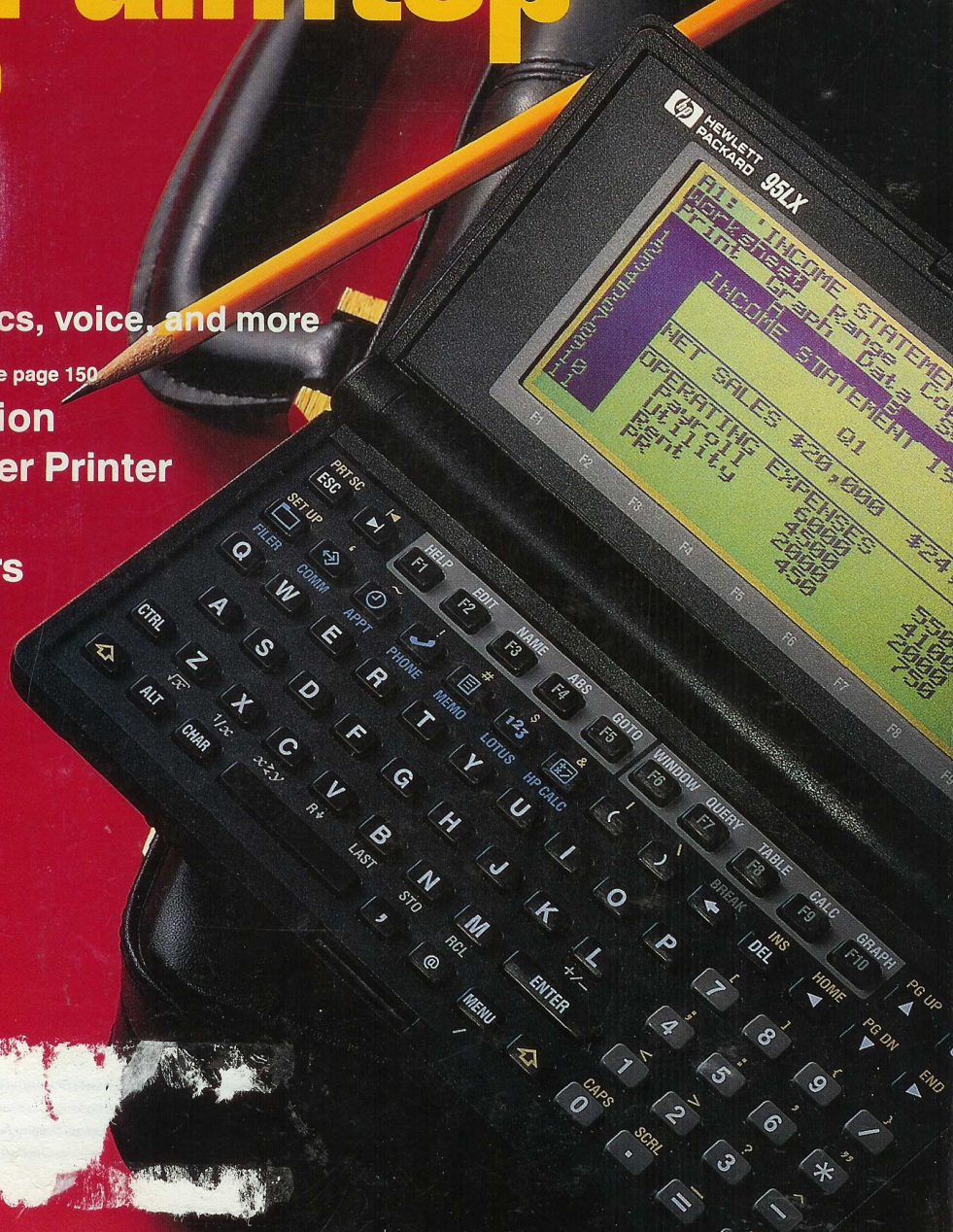
PC Image-Editing Software

Printer Sharing Devices

Color Printers



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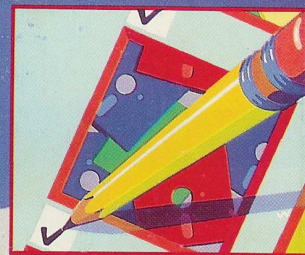


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Choose
the
Right
GUI

Page 124



486SX vs. Am386-40

Lab analysis reveals a surprise winner

State of the Art in
Desktop Multiprocessing

Understanding HP's PCL

8 Leading SX Notebooks

Three Free Utilities

Zenith's 386SL-Based MastersPort

PLUS

Borland's C++ and Turbo Pascal/Windows

HP's PA Unix Workstation

ATM, FaceLift, and Intellifont

Mac and PC 24-bit Paint Software

NCR WaveLAN

Nextstation



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Northgate's
Upgradables:CEG
Graphics
Built In

Page 43



**Microsoft's all-in-one system now includes
a 386 memory manager, disk and performance utilities,
a task-switcher, a real text editor, and more**

The New DOS

Readers' Choice Awards
Unicode: Beyond ASCII
Remote-Access Computing
Understanding OS/2
Device Drivers
Inside Mac Sound Hardware

PLUS

DRI's Multiuser DOS
Tandy's \$399 CD-ROM Drive
5 New Sparcstation Clones
Autodesk's AutoShade release 2
Motorola's Wireless LAN
Farallon's DiskPaper



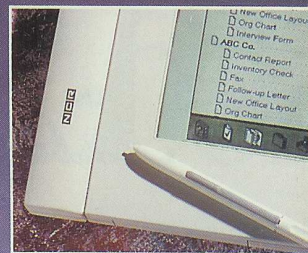
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**NCR's
Pen-Based
Portable**

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Is Your Data Safe?

Virus Protection page 226**Access Security** page 220**Disk Mirroring** page 230**STATE OF THE ART:
Fault Tolerance** page 172

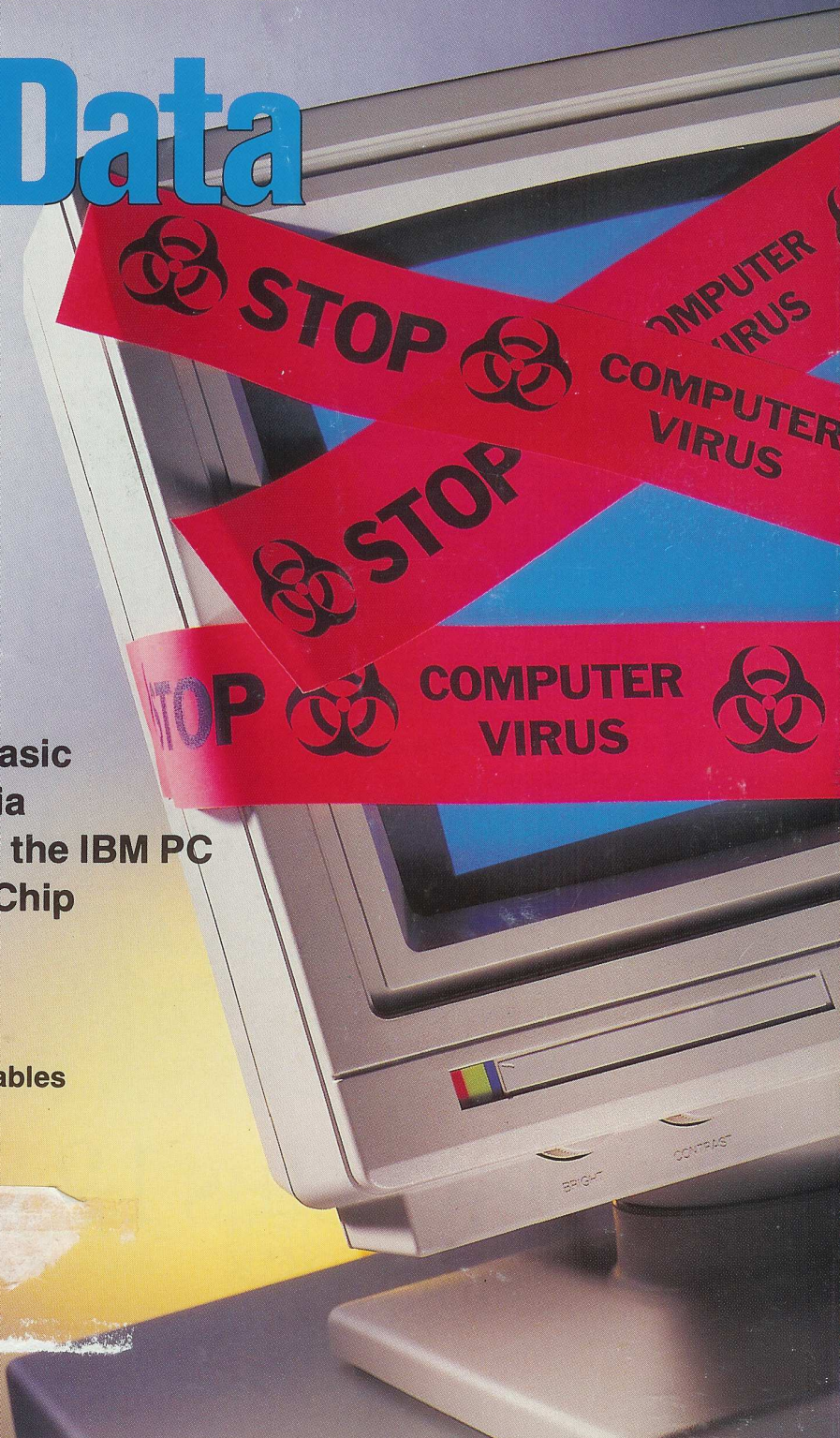
**Microsoft's New Visual Basic
Windows Goes Multimedia
The Tenth Anniversary of the IBM PC
Inmos's Amazing T9000 Chip**

PLUS

**9 Grammar and Style Checkers
Toshiba's and Dolch's Color Portables
IBM and AT&T SX Notebooks
Moby Brick: 8¾-pound 486**



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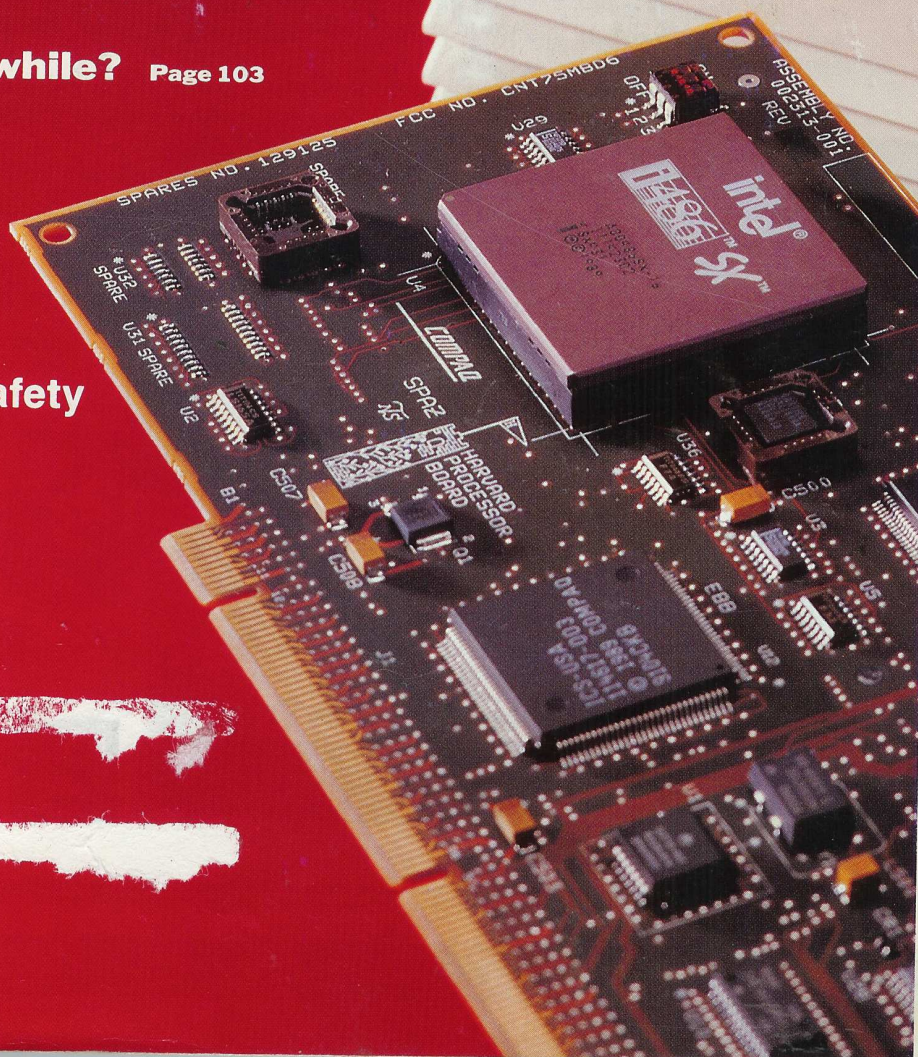
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SPECIAL SECTIONS:

New Printer Technologies
Page 136**LAB TESTS:**
9 Low-Cost PostScript Printers
Page 198

Does It Pay to Plug and Play?

Compaq's New Modular Series Page 36Upgradable, Affordable, EISA
New 16- and 25-MHz 486SXes**Roundtable:**
Is Modularity Worthwhile? Page 103**Under the Hood:**
Compact Hard Drives
Inside AppleTalk
Expert Networks
Computer Health and Safety**PLUS**
Visual Basic
Toshiba's New T2200SX
QuickC for Windows
6 Low-Cost Super VGA Boards
12 9600-bps Modems
Radius PC Flip\$3.50 U.S.A./\$4.50 IN CANADA
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SPECIAL ISSUE

BYTE

EXTRA EDITION

Display until January 15, 1992

TOMORROW



Key technologies
forecast by Letwin,
Kapor, Canion,
Nelson, Kay, Carr,
Singh, Dyson,
Metcalf, Shaffer,
Slater, Sinclair,
and many others

TODAY

Buying and resource
guides for ➤ 327
products from four
key categories, plus
introductions and
trend analysis
by the BYTE staff

CPU Wars



OSes

Desktop Systems

Future Software



The Business Perspective

Windowing



Computers and Society



Networking

On-line Services

Surveys



European Outlook

Key Technologies and Trend-Setting Products

OUTLOOK '92



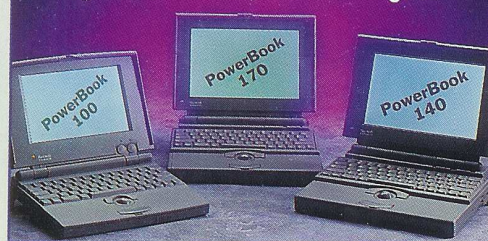
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TRUE NOTEBOOK MACS!

Lighter, Faster, Better Page 50



THE STATE-OF-THE-ART

Momenta

Stylus, keyboard, and a slick new "pen-centric" GUI

SPECIAL SECTIONS:

Interoperability Page 184

Tools for Linking Unix,
Mac, and NetWare Page 272

UNDER THE HOOD:

Modular Systems

Understanding
Frame Relay

C&T's Single-chip PC

PLUS

DR DOS 6.0

Slate's PenBook

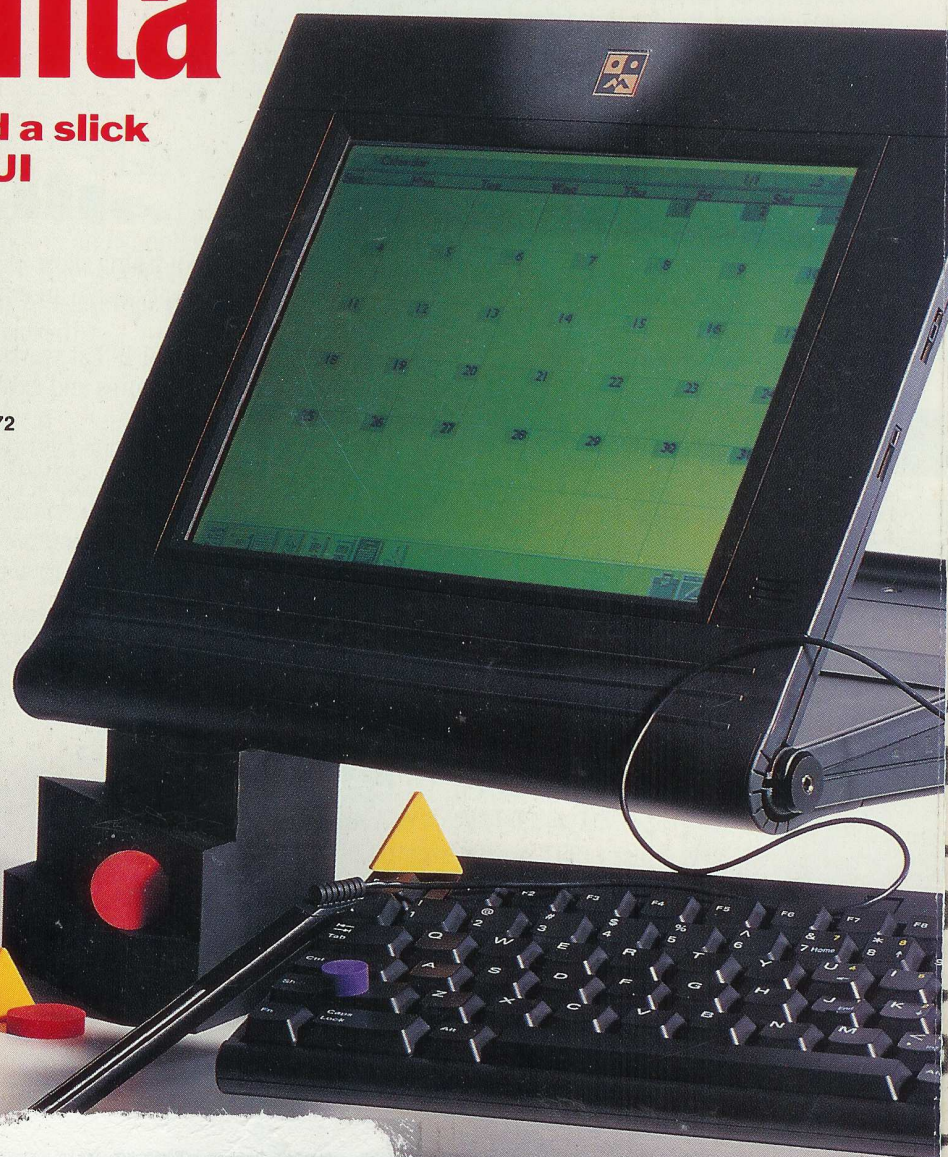
5 Peer-to-Peer LANs

5 New Memory Managers

8 Forms Software Packages

Tandy 3810 HD Notebook

Ensemble 1.2

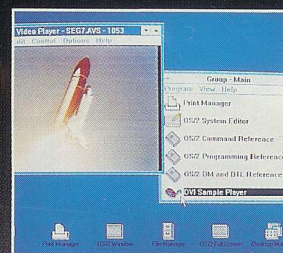
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Exclusive!**Intel and IBM
Team Up on
Multimedia**

Page 177

**Better Windows Than Windows?**

OS/2 2.0

**Firsthand Report on IBM's
New 32-bit Operating System****MULTIMEDIA****Inside Apple's QuickTime** Page 139**Multimedia at Work** Page 159**LAB TESTS****15 Presentation Graphics Packages
for DOS, Windows, and the Mac****PLUS**

Sun's Low-Cost Workstations

Zenith's new Mastersport Notebook

Lab Report: 6 Fax Servers

Barry Nance on Debugging LANs

Building 32-bit Windows Applications

Harvard Graphics for Windows

Nanao's 17-inch Low-Cost Monitor

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