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NEW 5 SDK Annotations!

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August 1996

DEVELOPER'S JOURNAL

The Magazine for Windows Programmers

Software Tools

A More Accurate Timing Tool
A Palette Spy Tool

**Compiler Benchmark: Inlining
Building Win32 DLLs the Right Way**

Bug++ of the Month

*The Missing
Warning Message*

Tech Tips

Comboboxes in Toolbars

Understanding NT

Debugging Services

Books in Brief

*The MindShare Series,
Delphi and more*



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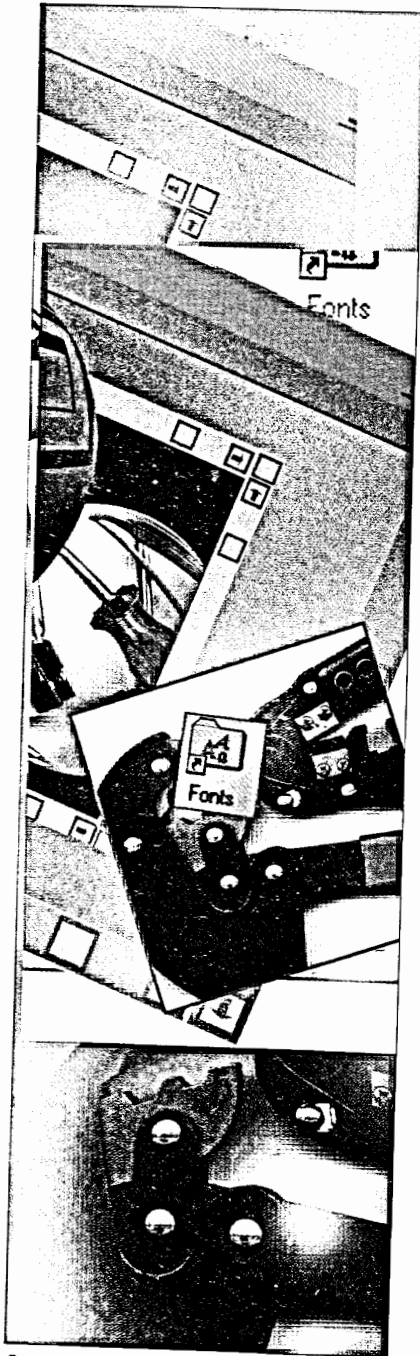
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The Magazine for Windows Programmers



Cover image by Twyla Watson Bogaard.

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Using an identity palette is essential for fast graphics, but how can you be sure you got it right? This tool uses some undocumented techniques to give you the information you need.

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Ron Burk

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Understanding NT: Debugging Services55

Services don't have to be started by the Service Control Manager, so how can your debugger get control? How can you protect yourself against a service that locks up your system at boot time? What debuggers are available for debugging services? The answers are all here, along with the undocumented method for attaching a process with the Visual C++ debugger.

Paula Tomlinson

Windows Developer's Journal (ISSN 1083-9887) is published monthly by Miller Freeman, Inc., 600 Harrison St., San Francisco, CA 94107 USA. (415) 905-2200. Periodicals paid at San Francisco, CA and additional mailing offices. POSTMASTER: Send address changes to Windows Developer's Journal, P.O. Box 56565, Boulder, CO 80322-6565 USA. Subscriptions: Annual renewable subscriptions to Windows Developer's Journal are \$34.99 US, \$45 Canada and Mexico, \$64 elsewhere. Payments must be made in US dollars. Make checks payable to Windows Developer's Journal. GST (Canada): #129065819

Books in Brief61

Paula Tomlinson reviews the System Architecture series of books by MindShare. Also, The Revolutionary Guide to MFC 4 Programming with Visual C++, by Mike Blaszcak; Teach Yourself Delphi 2 in 21 Days, by Dan Osier, Steve Grobman, and Steve Batson (reviewed by George Tylutki).

Ron Burk

Bug++ of the Month67

If you use the delete operator, the compiler has to generate code to call the destructor for that object. But what if the compiler doesn't yet know whether or not you defined a destructor? Isn't it a bug if it doesn't warn you that it may be generating incorrect code? Yes and no, as this month's non-bug shows.

Mark Nelson

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Windows
DEVELOPER'S JOURNAL
 The Magazine for Windows Programmers

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Subscriptions: Annual renewable subscriptions to *Windows Developer's Journal* are \$34.99 US, \$45 Canada and Mexico, \$64 elsewhere. Payments must be made in US dollars. Make checks payable to *Windows Developer's Journal*.

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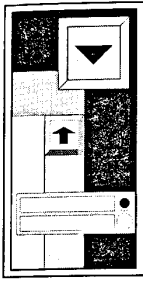
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Books in Brief

First Impressions of Recent Titles

Ron Burk

ISA System Architecture, 3rd Ed.

Tom Shanley and Don Anderson
517 pages
MindShare, Inc. and Addison-Wesley, 1995
\$34.95
ISBN 0-201-40996-8

80486 System Architecture, 3rd Ed.

Tom Shanley
188 pages
MindShare, Inc. and Addison-Wesley, 1995
\$19.95
ISBN 0-201-40994-1

PCI System Architecture, 3rd Ed.

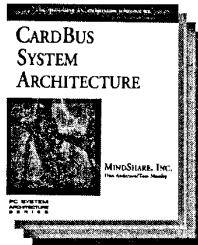
Tom Shanley and Don Anderson
557 pages
MindShare, Inc. and Addison-Wesley, 1995
\$34.95
ISBN 0-201-40993-3

EISA System Architecture, 2nd Ed.

Tom Shanley and Don Anderson
207 pages
MindShare, Inc. and Addison-Wesley, 1995
\$24.95
ISBN 0-201-40995-X

Pentium Processor System Architecture, 2nd Ed.

Tom Shanley and Don Anderson
433 pages
MindShare, Inc. and Addison-Wesley, 1995
\$29.95
ISBN 0-201-40992-5



PCMCIA System Architecture, 2nd Ed.

Don Anderson
440 pages
MindShare, Inc. and Addison-Wesley, 1995
\$29.95
ISBN 0-201-40991-7

PowerPC System Architecture

Tom Shanley
609 pages
MindShare, Inc. and Addison-Wesley, 1995
\$34.95
ISBN 0-201-40990-9

Plug and Play System Architecture

Tom Shanley
327 pages
MindShare, Inc. and Addison-Wesley, 1995
\$29.95
ISBN 0-201-41013-3

CardBus System Architecture

Don Anderson and Tom Shanley
407 pages
MindShare, Inc. and Addison-Wesley, 1996
\$29.95
ISBN 0-201-40997-6

Protected Mode Software Architecture

Tom Shanley
310 pages
MindShare, Inc. and Addison-Wesley, 1996
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August 1996

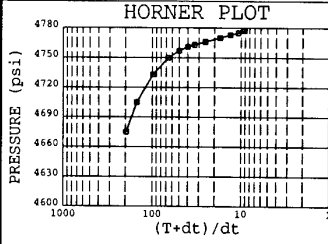
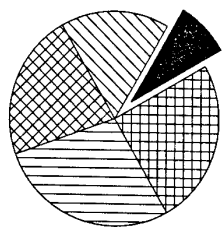
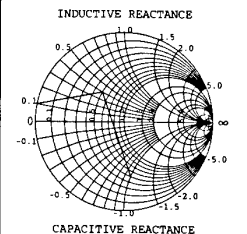
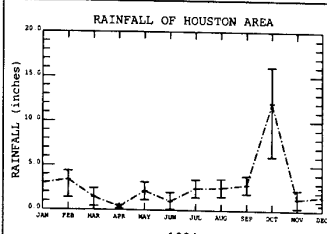

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[Editor's note: this review was provided by Paula Tomlinson.] I first discovered the System Architecture series a couple years ago at the bookstand that Computer Literacy always runs during the Software Development conferences. At that time, these books were published directly by MindShare and had very generic and nondescript black-and-white covers, so I almost overlooked them. I spotted the ISA and EISA books first. After leafing through them that night, I ran back to the bookstand the following day to buy any other books in the series, not dissuaded in the least by the prospect of hauling them back home with me. *CardBus System Architecture* is just the latest in this PC Architecture Series that currently totals 10 books. Addison-Wesley is now publishing these books with MindShare, so the more colorful cover art and wider distribution should ensure that you will be able to find them at any bookstore with a reasonable stock of computer titles.

I admit that there are so few good hardware books available that I tend to get enthusiastic about even mediocre attempts. But this series of books is truly an important part of my library. The series is generally based around processor architectures and bus architectures (with a few miscellaneous topics such as Plug-and-Play). I find that most books that call themselves processor architecture books are really references for the assembly language instruction set of that particular processor. While those books fill a need, they don't give readers an understanding of the overall hard-

ware design and are not adequate references for device driver writers. This is especially true of bus architectures; for example, it is extremely difficult to find good technical information about the PCI or PCMCIA buses. When I do manage to find an occasional hardware reference on the bookshelf, I almost hesitate to pick it up for fear of seeing the inevitable \$89+ price tag. As a welcome relief, the MindShare series titles range from \$19.95 to \$34.95. At this price, I don't feel bad spending the money on a book I might use only as an occasional reference. Ironically, though, my office copy of *EISA System Architecture* currently holds the title of "most likely to be borrowed by a coworker."

The format of these books is quite different than that of the average computer book. Each book is based on a seminar taught by the author and that heritage is evident in the book's structure — it flows more like modules than chapters. Like most hardware books, they get right to the point; there are none of the self-indulgent authorial digressions that you see in some software development books. But, unlike most hardware books, these are actually readable. Most hardware references read like encyclopedias — even the publishers don't expect anyone to actually read the

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SDK Annotation #130

TYPE: MFC
TOPIC: CCheckBox::Create
KEYWORD: CCheckBox::Create

The documentation mentions that the `dwStyle` parameter could be any of the specified listbox styles. However, the `dwStyle` parameter should NOT be `LBS_MULTICOLUMN` or `LBS_USETABSTOPS`. Moreover, you need to specify `LBS_OWNERDRAWFIXED` and `LBS_HASSTRINGS`. You can specify `LBS_OWNERDRAWVARIABLE` instead of `LBS_OWNERDRAWFIXED`, but then you need to override `CCheckListBox::DrawItem`, otherwise the debug version will ASSERT.

Submitted by Sudhir Menon.

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