

At Last, a Decent MFC Book!

NEW 5 SDK Annotations!

# Windows<sup>®</sup>

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**

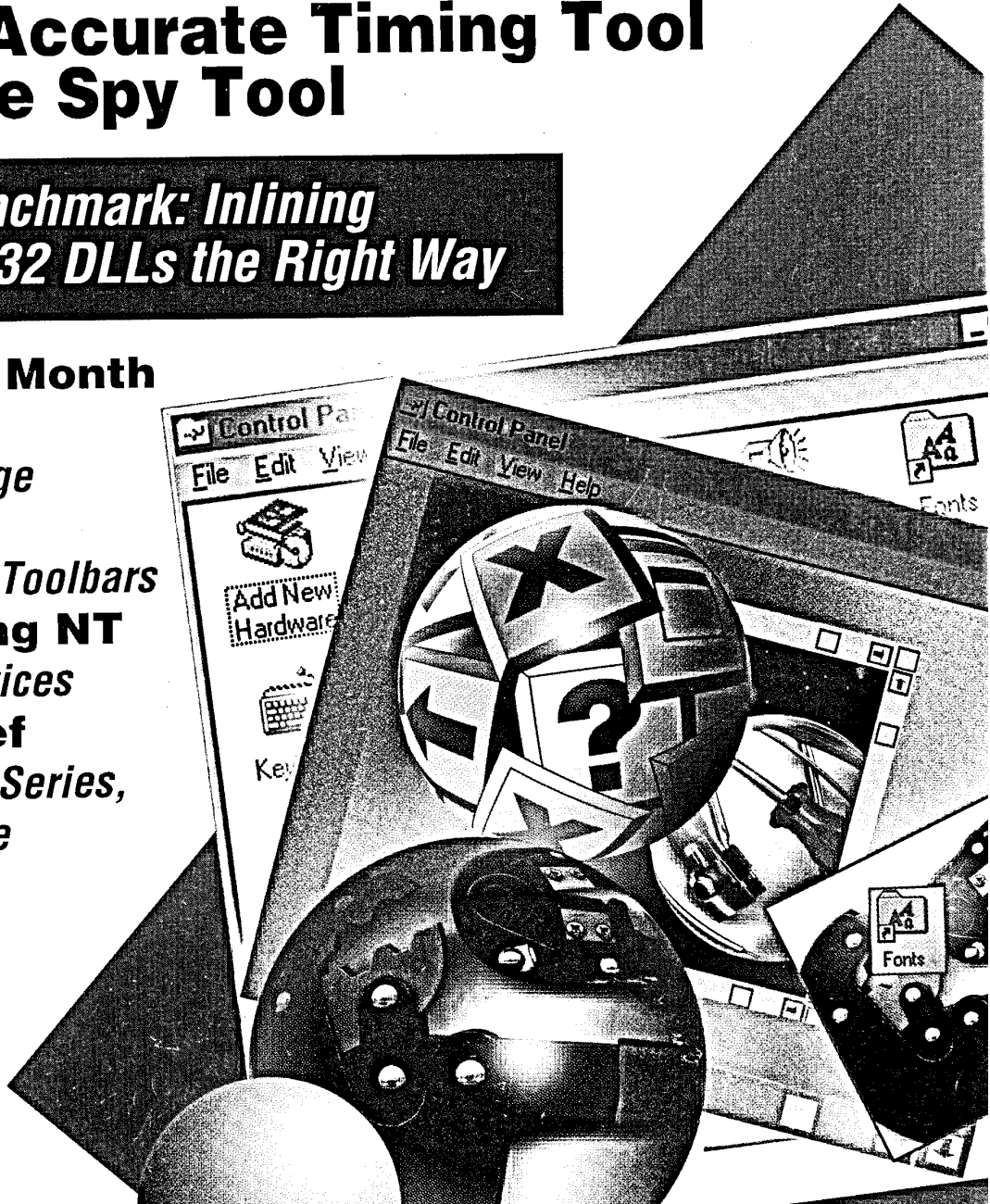
*Comboboxes in Toolbars*

**Understanding NT**

*Debugging Services*

**Books in Brief**

*The MindShare Series,  
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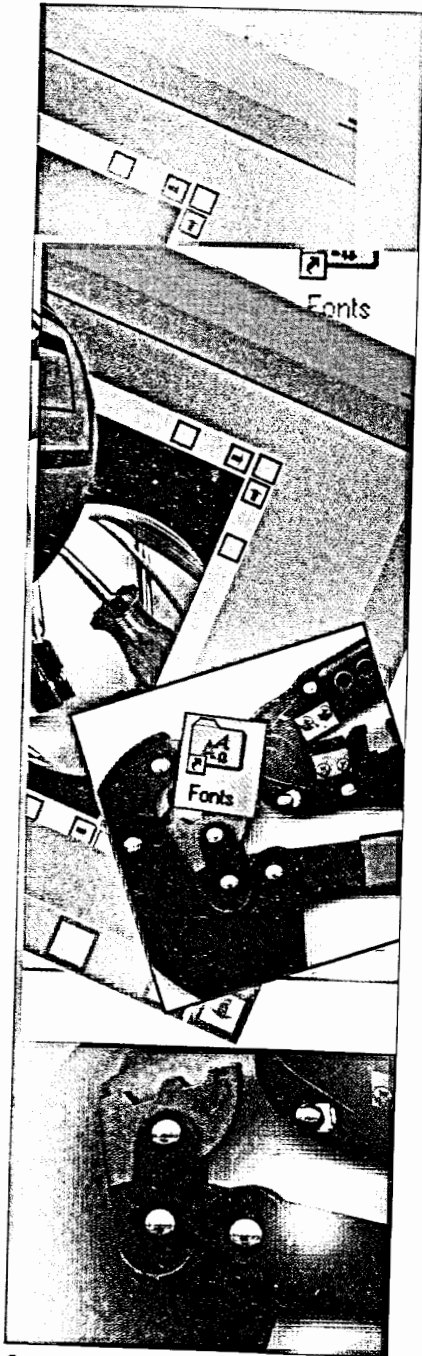
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Cover image by Twyla Watson Bogaard.

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#### A Palette Spy Utility .....6

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.

Chris Branch

#### A More Accurate Timing Tool .....14

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Mike Dawdy

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How much overhead do you pay for using C++ instead of just C? We start looking for some answers to that question by benchmarking how efficiently five 32-bit Windows compilers can handle a simple inline function.

Ron Burk

#### Building Win32 DLLs the Right Way .....33

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Ron Burk

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Leor Zolman

#### Understanding NT: Debugging Services .....55

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Paula Tomlinson

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**Books in Brief .....61**

*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 Month .....67**

*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.*

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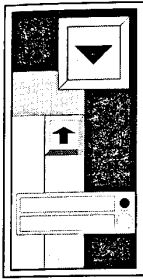
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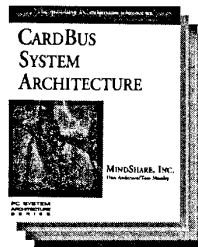
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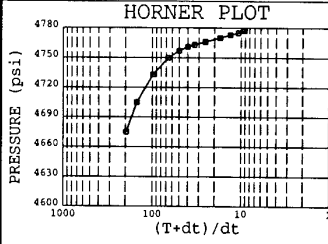
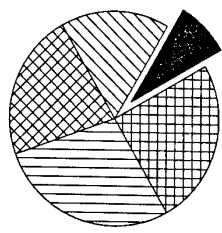
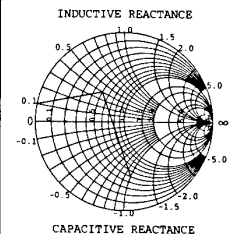
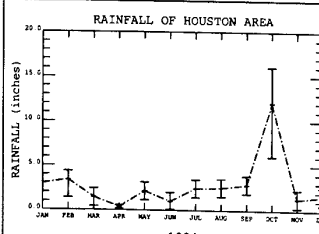
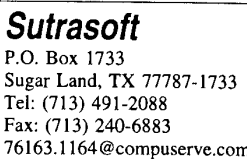



[Editor's note: this review was provided by Paula Tomlinson.] I first discovered the System Architecture series a couple years ago at the bookstand that Computer Literacy always runs during the Software Development conferences. At that time, these books were published directly by MindShare and had very 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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