

PC

MAGAZINE

PCMAG.COM

THE INDEPENDENT GUIDE TO TECHNOLOGY

DIGITAL CAMERAS LAPTOPS MP3 PLAYERS CELL PHONES PRINTERS DESKTOPS HDTVS SOFTWARE MORE >

Sign In | Register | My Account

PC MAGAZINE NETWORK

Save 82%

W

Get 12 Issues of PC Magazine for ONLY \$14.97!* and get our

Name

Address

City

State

Country

Email

USA

Subscribe

*Price outside the U.S. is

Over 20,000 IT Terms

NEWS COLUMNS COMPARE PRICES DISCUSS @WORK BLOGS VIDEO SUBSCRIBE

Security Watch SMB Boot Camp Software Hardware Tips Encyclopedia

SEARCH

PC Magazine: Current Issue Previous Issues

ADVERTISEMENT

Definition of: [signaling in/out-of-band](#)

Every communications system transmits data and control signals. The data are the reason for the transmission in the first place, and the control signals start, stop and manage the session.

Signaling In-Band

When the data and control signals are transmitted within the same channel or frequency, the signaling is said to be "in-band." For example, an analog modem transmits control signals and data in the same human voice frequency band (see [Hayes Smartmodem](#)).

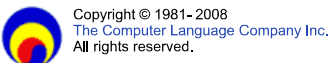
Signaling Out-of-Band

When control signals reside in a channel separate from the data, they are "out-of-band" signals. For example, in ISDN service, the D channel is a dedicated channel for control signals, and the B channels carry the data (see [CCS](#)). The traditional SS7 telephone system uses an entirely separate network for control signals (see [AIN](#)).

RELATED TERMS:

[AIN](#)
[CCS](#)
[Hayes Smartmodem](#)

Search: [Search Encyclopedia](#) [Browse the index](#)



Copyright © 1981-2008
The Computer Language Company Inc.
All rights reserved.

THIS COPYRIGHTED DEFINITION IS FOR PERSONAL USE ONLY.
All other reproduction is strictly prohibited without permission from the publisher.

newsletters

Get PCMag.com's **FREE** email newsletters delivered to your inbox.

It's easy, just follow the steps.

Want more? Check out our other newsletters [here](#).

Manage your newsletter subscriptions [here](#).

1. Make your selections:

- ☒ Daily News Alert
- ☒ Inside PCMag.com
- ☒ PCMag.com Small Business Update
- ☒ PCMagCast Update
- ☒ Productwire: First Looks Update
- ☒ Security Watch
- ☒ Tech Saver
- ☒ Tip of the Day
- ☒ Utility Library Update
- ☒ What's New Now
- ☒ PCMag Announcements

2. Select email format:

HTML

3. Enter email address:

ADVERTISEMENT

STORAGE SOLUTION ZONE

Are you looking for information on how to back up your computer? Keep your important files in sync with your life? Find answers to your personal storage needs at the Storage Solution Zone.

Here you will be able to:

- [Watch quickeducational videos](#)

- [Read tip sheets and product reviews](#)

- [Take virtual product tours](#)

Info Centers

Storage Solution Zone: Seagate/Maxtor
Lenovo Notebook Zone: Lenovo
HP Storage Solution Center: Hewlett Packard
HP Proliant Server Buying Guide: Hewlett Packard

Special Offers

It's time for QuickBooks Pro. Get \$20 off now!
Looking to stand out above your competition?
Keeping Your SQL Server™ Databases Defragmented
Easy and Affordable Solution for Your Network

FEATURED VIDEO

SAVE 82% **PC** **The Fastest** **PC** **subscribe**
NOW ON PC MAGAZINE + GET OUR ULTIMATE UTILITIES II FREE

[Subscription Help](#) | [Renew](#) | [Give a Gift](#)

Featured Offers

FREE WHITE PAPER:

[How can you eliminate your SQL Server Databases' I/O bottlenecks, data gridlock, and bandwidth clogs?](#)

How can you eliminate your SQL Server Databases' I/O bottlenecks, data gridlock, and bandwidth clogs? This white paper explains how fragmentation is responsible for many of these lags. The paper also explains the aftereffects of building onto a fragmented database and how that database can be restored to optimum speeds. The outline of this article also gives you a quick, painless solution that will automatically defrag and continually protect your system in real time.

[Click here to download this free white paper now!](#)

>> brought to you by Diskeeper

FREE WHITES PAPER FROM OUR PARTNERS!

- [Is your company constantly seeking ways to stand out above your competition?](#)
- [New Release - Diskeeper® 2008 with InvisiTasking™](#)

>> brought to you by Business Objects

GET Defrag-A-File 2 - AVAILABLE NOW!



[This update to our popular utility defrags faster and more thoroughly to enhance your overall system performance.](#)

New features in this version include:

- A new, more advanced algorithm to ensure more files are defragged and defragged faster
- Shell extension interface, so that you can simply right-click on a folder or file in Explorer and quickly defrag the files, or choose to analyze the files to see if they need defragging
- The ability to defrag all files that have a fragmentation level above a certain threshold
- And more!

[Download Now: Defrag-A-File2Setup.zip](#)

Apple
MacBook Air
Video Art

Product Reviews

Apple MacBook Air

PC Magazine's Lead Laptop Analyst Cisco Cheng gets a hands-on preview of the world's thinnest notebook, the Apple MacBook Air.

• [Video Review Archive](#)

MacWorld
2008 Video
Module

DLTV

MacWorld 2008 Keynote Video

Steve Jobs unveiled four new Apple products at MacWorld 2008, all of which will launch by the end of January! Check out the big announcements at this year's MacWorld keynote.

• [DLTV Archive](#)

CrankyGeeks:
CES 2008,
Dvorak-Style

Cranky Geeks

CES 2008, Dvorak-Style

Vegas Veteran and Head Crank John Dvorak takes you on a whirlwind tour of Las Vegas during CES 2008 and meets up with some familiar faces along the way! Wait, is that Curt Schilling?!

• [CrankyGeeks Archive](#)

Most Popular Videos

- [Product Review: LG Voyager](#)
- [CrankyGeeks: Vista SP1 Wasn't Worth The Wait](#)
- [DLTV: HDTVs for this Holiday Season](#)
- [Tech Tip: Speed Up Windows XP](#)
- [From CES: Logitech Harmony One](#)

[All Videos >](#)

PCMag RADIO PODCAST



PCMag Radio

Apple Announces MacBook Air
 Apple underwhelms us. Plus, the hottest news from CES 2008.

[PCMag Radio Archives](#)

Most Popular Podcasts

- [Windows Vista Headaches](#)
- [HD-DVD/Blu-Ray Player, Hot HDTVs](#)
- [Microsoft Announces Vista Update](#)

[All PCMag Radio Podcasts >](#)

PCMagCast Practical webcasts for work, home, and on the go

PC Magazine's live, online events make you more productive at work, home, and on the go. Best of all, they're FREE!

Featured Event:

Learning Center:

Boost Productivity with Sound Networking Hardware

Available on demand now! *Sponsored by HP*
 Servers, and the increasingly flexible appliances and hardware that attach to them, form the heartbeat of your business network. There are more choices now than ever in how to structure a network and learning about best practices begins with understanding which hardware is best for your business. [Attend today.](#)

[See all PCMagCasts >>](#)

More Free PCMagCasts:

Two Technologies, More Power – Visual Studio And Crystal Reports 2008

Sponsored by Microsoft and Business Objects

Empower yourself to make multiple decisions from one report through enhanced report interactivity. Run your own "what-if" scenarios and get more report views, instantly, from one report – without hitting the database. [View this event.](#)

Learning Center: Security at the Endpoints: Locking Down Data on All Your Devices

Sponsored by Dell SB360
 Experts from PCMagCast, the award-winning webcasting arm of PC Magazine, deliver everything you need to lock down all your data on all of your devices. In this four lesson course, we'll explain the latest security trends and explain the most current countermeasures. [Attend now.](#)

sponsors

Begin with color. Get a \$699 Dell™ Inspiron™ 1525 notebook

Find out how to keep your important documents safe and sound at the Storage Solution Zone

Brother: The Better Choice in Color Laser Printing

Special offers on ThinkPad® and Lenovo 3000 PCs.

Acer Aspire AMD Turion Notebook - Now available at Newegg.com!

The new Panasonic Toughbook® 52 laptop. Rugged. Reliable. Wireless.

For your storage needs: HP Storage Solution Center

It's time for QuickBooks Pro. Get \$20 off now!

Experience Storage Utopia

Learn how to sync your life with your music, pics and important documents at the Storage Solution Zone

Learn how a server can re-energize your business with HP ProLiant Server Buying Guide.

Order at circuitcity.com, pick up in 24 minutes. Shop now!

PCMAG.COM

[Issue Index](#) | [Contact Us](#) | [About](#) | [Advertise](#) | [Site Map](#) | [Magazine Customer Service](#)

PCMAG.COM QUICK LINKS

[Desktop Reviews](#) | [Cheap Laptops](#) | [Wireless Networking](#) | [Media Desktops](#) | [Laser Printers](#) | [InkJet Printers](#) | [MP3 Players](#) | [Digital Camcorders](#) | [Plasma HDTVs](#) | [LCD Monitors](#) | [Flatbed Scanners](#) | [Bluetooth Phones](#) | [Palm PDAs](#) | [Cheap Digital Cameras](#) | [Virus Software](#) | [Small Business Solutions](#)



[Ziff Davis Home](#) | [Contact Us](#) | [Advertise](#) | [Link to Us](#) | [Reprints](#) | [Magazine Subscriptions](#) | [Newsletters](#) | [RSS Feeds](#) | [Tech Shop](#) | [Tech Encyclopedia](#) | [PC Downloads](#) | [Tech Webcasts](#) | [Tech Podcasts](#) | [Tech Video](#) | [Ziff Davis Media International](#)

[1UP](#) | [AppScout](#) | [Cranky Geeks](#) | [DigitalLife](#) | [DLTV](#) | [ExtremeTech](#) | [Filefront](#) | [GameVideos](#) | [GearLog](#) | [GoodCleanTech](#) | [My Cheats](#) | [PC Magazine](#) | [PCMagCasts](#) | [Security Watch](#) | [Smart Device Central](#) | [TechnoRide](#) | [What's New Now](#)

[AppScout Mobile](#) | [Gearlog Mobile](#) | [GoodCleanTech Mobile](#) | [PC Magazine Mobile](#)

Use of this site is governed by our [Terms of Use](#) and [Privacy Policy](#).

Copyright © 1996-2008 **Ziff Davis Publishing Holdings Inc.** All Rights Reserved. PC Magazine is a registered trademark of Ziff Davis Publishing Holdings Inc. Reproduction in whole or in part in any form or medium without express written permission of Ziff Davis Media Inc. is prohibited.