IBM

DSNE-W94D-00

IBM® Personal Software Products (PSP)

Developer Support News

1994 Issue 4

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Description. Proven results. Use of S.M.A.R.T. porting tools. Locations. Registration and more information.

"OS/2 for Windows – Important Update!" on page 3

Position paper by Scott Handy, PSP Marketing Strategies.

"IBM OS/2 2.1 ServicePak (XR06200) Available" on page 5

Description. How to obtain the ServicePak. Downloading electronically. Ordering by mail (including prices).

"The Developer Connection for OS/2, Volume 3" on page 7

List of contents. How to order.

Note: This item is 352 lines long.[1]

"Bento and OpenDoc Materials in Developer Connection Volume 3" on page 16

Background. Four key technologies. Bento and OpenDoc content in Developer Connection Volume 3.

"FREE SOMobjects Developers Seminar Features Direct-to-SOM Compilers" on page 17

Description. Highlights. Who should attend. Tentative agenda. Enrollment deadline. Enrollment application.

"C++ and Object-Oriented Education on CD-ROM" on page 20

Review of pre-release IBM CD-ROM covering C++ and object-oriented technology. How to obtain.

"IBM SOMobjects Developer Toolkit, Workstation Enabler, Workgroup Enabler Version 2.0 for Windows" on page 21

Description. Highlights. SOM technology advantages. OMG CORBA-compliant. Workstation and workgroup SOM. Binary compatibility. Product positioning. Publications. Hardware requirements. Software requirements. Packaging. Planned availability dates. Additional licenses. Charges. Ordering information.

"Tools Added to DAPTOOLS Thus Far in 1994" on page 27

List of latest DAPTOOLS.

"IBM Device Driver Source Kit (DDK) for OS/2" on page 28

Description. Subscription prices. System requirements. Technical support. Version 1.2 highlights. Lists of specific drivers, tools, and debuggers. How to order.

Note: This item is 370 lines long.[1]

"Device-Driver Development Support Center News" on page 36

DUDE usage surges. FREE device-driver workshops fill up. More information. Joining the DUDE.

"Device-Driver Source Kit Future Directions" on page 37

[1] ASCII version

DDK CD features Developer Connection News. DDK CD usability improvements. Give us your feedback!

“Device-Driver Source Kit (DDK) Documentation Enhancements” on page 39

Better mix of hardcopy and online information. Improved organization. Better retrieval of information. More tools and sample code. More hypertext capability. Ordering the Libraries.

“Correction to PSP Technical Interchange Information Published in January DSNEWS” on page 42

Corrected information about what each attendee receives.

“Reminder: Early Registration Discount Technical Interchange Expires 21 March!” on page 43

Fees. How to register.

“IBM PSP Technical Interchange Agenda” on page 44

As of 10 March 1994. Topics merged or discontinued. Topics added. Topics renamed. Complete schedule of all breakout sessions.

Note: This item is 566 lines long.[1]

“New TalkLink Service” on page 53

Description. Migrating to New TalkLink. TalkLink highlights.

“IBM APL2/2 Version 1.0” on page 54

Description. Packaging options. Highlights. Environment. Benefits. Cooperative processing. Uses. Cross-system compatibility. Growth enablement. Auxiliary processors. Business solutions. Publications. Hardware requirements. Programming requirements. Charges.

“CM/2 Version 1.1 Upgrade Promo – Hurry, Time's Running Out!” on page 60

Two offers expiring 31 March for upgrading to Version 1.1.

“U.S. Developer Assistance Program Discount on IBM Printers” on page 61

Description. How to participate. Whom to contact. Disclaimer. Eligible products (printers and features) and prices.

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Description. Products supported. Service. Trading companies to contact for more information.

“Technical Support for DBCS OS/2 for Developers Outside Asia” on page 68

Furnished by Microburst, Inc. for all OS/2 DBCS versions. Products supported. Contact information.

“IBM Japan Developer Assistance Program Contact Methods” on page 69

Enrollment via fax. Technical support via Nifty-Serve. Products supported. Nifty-Serve forum and userids.

“IBM LAN Distance 1.1 Beta Drop 4 Available in E/ME/A” on page 70

How to obtain more information. How to order.

“800 Phone Numbers” on page 71

“Trademarks, Registered Trademarks, Service Marks” on page 73

Back Issues

The file names, dates, and number of pages for all issues thus far are as follows.

1993 Issue	Date	Zipped	ASCII	INF	PS	Pages[1]
1	17 May	dsn93a.zip	dsnews.93a			52
2	15 June	dsn93b.zip	dsnews.93b			50
3	15 July	dsn93c.zip	dsnews.93c			62
4	23 July	dsn93d.zip	dsnews.93d			48
5	16 August	dsn93e.zip	dsnews.93e			29
6	15 September	dsn93f.zip	dsnews.93f	dsn93f.inf		47
7	15 October	dsn93ga.zip dsn93gi.zip dsn93gp.zip	dsnews.93g	dsn93g.inf	dsn93g.ps	63
8	15 November	dsn93ha.zip dsn93hp.zip	dsnews.93h		dsn93h.ps	34
9	15 December	dsn93ia.zip dsn93ii.zip dsn93ip.zip	dsnews.93i	dsn93i.inf	dsn93i.ps	46

1994 Issue	Date	Zipped	ASCII	INF	PS	Pages[1]
1	17 Jan 94	dsn4aa.zip dsn4ai.zip dsn4ap.zip	dsn4a.asc	dsn4a.inf	dsn4a.ps	81
2	17 Feb 94	dsn4ba.zip dsn4bi.zip dsn4bp.zip	dsn4b.asc	dsn4b.inf	dsn4b.ps	71
3	17 Feb 94	dsn4ca.zip dsn4ci.zip dsn4cp.zip	dsn4c.asc	dsn4c.inf	dsn4c.ps	70
4	15 March 94	dsn4da.zip	dsn4d.asc			58

Explanation of names of zipped files for Issues 7 and later:

DSNymA Developer Support News 199y Issue m ASCII (plain-text)

DSNymI Developer Support News 199y Issue m .INF (use OS/2 VIEW)

DSNymP Developer Support News 199y Issue m .PS (PostScript)

where y is the last digit of the year (3, 4, ...), and m is the issue represented as alpha (1=A, ..., 7=G, 8=H, ...).

For example, DSN3GI is 1993 issue 7 (=G), the 15 October issue, in .INF format (after being unzipped).

Where to Find DSNEWS

Outside IBM

DSNEWS zipped files are found on several e-mail and BBS systems:

America Online, in the OS/2 forum, in the Newsletters library

CompuServe, in OS2DF2 forum, *DAP library section 14 and in OS2DF1 forum, OPEN FORUM library section 15

GEnie, in OS/2 Software Library 16

Gopher, in index.almaden.ibm.com, OS/2 Information menu; also in bobblair.austin.ibm.com

IBM Canada BBS, in file area 35, OS/2 Programming

IBM Europe/Middle East/Africa (EMEA) BBS, in file area DOCS.PUBS

IBM France OS/2 Developer Assistance Program BBS, in area PUBS01

IBM OS2BBS (TALKLink), in OS/2 Software Library, in Documents and Info

IBM Personal Computer Company BBS, in file area 11, OS/2 Programming

Internet, in anonymous ftp server software.watson.ibm.com, in directory /pub/os2/info

PRODIGY, in the OS/2 Club topic's download library under IBM Files

Note: If you cannot find files named dsn... (in lower case), look for files named DSN... (in upper case).

Within IBM

All 1994 issues, in ASCII and INFBIN formats, are in DSN4 PACKAGE in the OS2TOOLS tools catalog **only**.

To obtain DSN4 PACKAGE, type

```
TOOLCAT OS2TOOLS GET DSN4 PACKAGE
```

or

```
TOOLS SENDTO KGNVMCB PCTOOLS OS2TOOLS GET DSN4 PACKAGE
```

You can also request DSN4 PACKAGE by typing

```
REQUEST DSN4 FROM V1ENG AT BCRVM1
```

To subscribe to DSN4 PACKAGE, type

```
TOOLS SENDTO KGNVMCB PCTOOLS OS2TOOLS SUB DSN4 PACKAGE
```

All 1993 issues, in ASCII and INFBIN formats, are in DSNEWS PACKAGE in the MKTTOOLS, OS2TOOLS, and PCWIN tools catalogs. To obtain DSNEWS PACKAGE, type

```
TOOLCAT catalogname GET DSNEWS PACKAGE
```

or

```
TOOLS SENDTO catalogdisk GET DSNEWS PACKAGE
```

where

catalogname MKTTOOLS is on catalogdisk USDIST MKTTOOLS MKTTOOLS

catalogname OS2TOOLS is on catalogdisk KGNVMCB PCTOOLS OS2TOOLS

catalogname PCWIN is on catalogdisk BCRVMMS1 PCWIN PCWIN

```
TOOLCAT MKTTOOLS GET DSNEWS PACKAGE
TOOLS SENDTO USDIST MKTTOOLS MKTTOOLS GET DSNEWS PACKAGE
```

You can also request DSNEWS PACKAGE by typing

```
REQUEST DSNEWS FROM V1ENG AT BCRVM1
```

DSNEWS PACKAGE is no longer being updated every month. 1994 updates are made to DSN4 PACKAGE.

Note: Use a monospace font to print the ASCII version.

Formats of DSNEWS Other Than ASCII

Outside IBM, .INF and PostScript formats are available for some (not all) issues of DSNEWS. Consult the back issues chart above for details.

Within IBM, other formats of DSNEWS are available. The DSNEWSB PACKAGE in the OS2TOOLS catalog contains all issues of DSNEWS in BookMaster, LIST3820, OS/2 .INF, and PostScript formats.

PSP Developer Support produces only the ASCII version of DSNEWS. Other formats are produced by IBM volunteers. Consequently, future issues of DSNEWS will be provided in formats other than ASCII as time permits.

Notice to Readers Outside the USA

It is possible that the material in this newsletter may contain references to, or information about, IBM products (machines and programs), programming, or services that are not announced in your country. Such references or information must not be construed to mean that IBM intends to announce such products, programming, or services in your country.

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Your comments about this newsletter are important to us. Please send your feedback to IBM PSP Developer Support News at:

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Custom Application Porting Workshops for OS/2

IBM and One UP Corporation announce new, custom, individualized workshops for porting applications to OS/2.

These workshops simplify the process of porting existing applications to 32-bit OS/2, with native source code, from other platforms, or creating pen-based applications.

Technical experts will assist you in creating 32-bit OS/2 applications based on existing 16-bit OS/2, DOS, Windows 3.x, or UNIX applications. Your ported application will also be well positioned for easy migration to Workplace OS. In addition, technical experts can help developers to use OS/2's System Object Model (SOM) and Pen computing capabilities.

Custom Application Porting Workshops for IBM OS/2 are proven to:

Accurately size your project

Minimize the learning curve

Guarantee architectural integrity

Shorten development schedules

Port anywhere from 35% to 100% of your application during the workshop

Introduce you to latest porting tools and techniques

Each request for porting assistance will be handled individually. An initial conference call will be held with the customer to fully understand the porting effort. A written proposal will be given to the customer with suggestions and prices for the different phases of the port, based on the work effort involved. The customer can select as much or as little assistance as deemed appropriate.

These porting efforts include the use of the S.M.A.R.T. Tool Set, beta version, which is scheduled to ship in Volume 3 of The Developer Connection for OS/2 CD-ROM. The customer also has the option of completely outsourcing the porting effort.

The phases of the new custom porting process are:

1. Analysis of code to identify and report specify issues, and to identify the amount of porting effort required. This includes a breakdown of all API calls, type definitions, symbols, and messages. The analysis provides a detailed look at the source, followed by a detailed report. This phase uses S.M.A.R.T. Ally.
2. Automated code replacement of items that have a one-to-one mapping from the source to the target environment. (The average has been 35 percent to 65 percent of the code.) Also included in this phase is the conversion of resource files. This phase uses S.M.A.R.T. Port.
3. Interactive code replacement, with input from an application developer, for those source items that have an equivalent feature in the target environment, yet require a decision.
4. Implementation of unsupported features.
5. Addition of platform-specific features.

The new individualized services replace classroom-style group workshops that IBM previously offered as part of its Developer Assistance Program. Those group workshops, conducted by One UP Corporation for IBM, have achieved 100 percent customer satisfaction for the past two years.

These custom porting sessions can be held at customer locations, or at One UP's porting facility in Dallas, Texas. Workplace OS porting workshops, when announced, will be held at the West Palm Beach, Florida porting center.

For more information and to register, call One UP Corporation's toll-free number, 1-800-678-31UP, and refer to the Custom Application Porting Workshops for OS/2. Outside the USA, call call 1-214-620-1123, extension 2500. Or contact the workshop team directly: Marilyn Johnson, Program Manager, 1-407-982-5514; Laura Rose, 1-407-443-1640; and Terry Kemmerer, 1-407-982-1041; or fax to 1-407-443-4233, attention: Marilyn Johnson.

OS/2 for Windows – Important Update!

This item was written by Scott Handy, Program Manager, PSP Market Strategies in IBM Boca Raton, Florida, and was distributed to many e-mail and BBS systems on 23 February 1994.

There seems to be a lot of unnecessary panic regarding Windows 3.11. We see no reason to install this "update" because it provides little or no value for the majority of Windows customers. Even the Microsoft README.TXT for the update documented no reasons to install it. OS/2 for Windows with Windows 3.10 provides significantly more value to our customers than Windows 3.11 offers.

Microsoft has stated there are minor bug fixes included in 3.11, but we know of no public listing of those bugs for their users. Microsoft is therefore admitting that they have stability issues in the Windows 3.10 environment. We have been saying all along, and still are, that OS/2 for Windows on top of Windows 3.10 is the most stable environment for Windows users.

IBM, through our normal support channels, continues to provide fixes for our OS/2 2.x (including Win-OS/2) and our OS/2 for Windows products. We feel we have very high quality in both environments. An OS/2 for Windows or OS/2 2.x customer is an IBM customer, and should not look to Microsoft for support of IBM-provided code. If you feel you have a bug to report, you should do so through IBM.

Microsoft has also noted that they added anti-counterfeiting packaging changes to the new Windows 3.11 box, which is of no value to a licensed, installed user.

I personally feel customers should be directing at least some of this frustration at Microsoft, which has caused confusion and support issues not only for OS/2 for Windows users, but for their entire installed base. Microsoft changed the following system files without a description of what the changes do:

COMMDLG.DLL

GDI.EXE

KRNL386.EXE

PSCRIPT.DRV

UNIDRV.DLL

SHELL.DLL

USER.EXE

IBM could never get away with doing that.

OS/2 for Windows is a complimentary product to Windows 3.1. If Microsoft were truly customer-driven, they would test system updates to make sure that complimentary products that their customers are using continue to operate properly. Consider what would happen if IBM shipped an "update" to OS/2 that broke popular OS/2 complimentary products? Our customer forums would really be buzzing!

This is not to say we did not expect this action. Long before we shipped OS/2 for Windows, we knew the potential for a Windows 3.11 update that would break OS/2 for Windows; however, we expected the update to have significant documented function and/or fixes.

Although we feel strongly that OS/2 for Windows with Windows 3.10 provides significantly more value to our customers than Windows 3.11, we are evaluating our options for Windows 3.11 support. We are certain we can maintain compatibility with Windows 3.11, but we will make the decision based on cus-

tomer value and resource required to achieve it relative to other value-add options. This is part of our commitment to a customer-driven process. On the other hand, we hear loudly and clearly the perception issues and the anxiousness out there.

There have been comments made on IBM customer forums that most of the 30M+ Windows 3.10 installed base will upgrade to Windows 3.11, and that they will be a lost opportunity for OS/2 for Windows. Our research of the average end-user does not support this view. Forum surfers, like us here, tend to know about and install “updates” (note that Microsoft calls it an update, not an upgrade). But the average user is not a forum surfer, and uses the old “if it ain't broke, don't fix it” mentality (which is the wiser decision here). OS/2 for Windows has been, and continues to be, a value-add upgrade for this massive installed base of Windows 3.10 users.

If users do install the 3.11 update and call the support center, the center can help the user get back to the supported, stable environment above. Don't get me wrong — we understand this will generate some additional support calls. And we know, even though the original source of the problem is a change in Microsoft's code, it will be perceived as an IBM problem. We just need to manage that perception and the support situation.

As for new users, the decision is the same as before: OS/2 2.1 versus Windows (3.1x). As always, we recommend OS/2 2.1, and will continue to support that offering via IBM support.

Comments appreciated – and expected!

Scott Handy
Program Manager
PSP Market Strategies
IBM Personal Software Products
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Fax: 1-407-982-8888

IBM OS/2 2.1 ServicePak (XR06200) Available

The IBM OS/2 2.1 ServicePak, level XR06200, is now available to customers using OS/2 Version 2.1. This ServicePak can be downloaded electronically from several e-mail and BBS systems, and it can also be ordered in both diskette and CD-ROM formats.

The ServicePak contains fixes for problems reported by customers since OS/2 2.1 was released in June 1993.

The ServicePak can be applied ONLY to:

OS/2 2.1 as released in June 1993

OS/2 2.1 preloaded systems

This ServicePak does **NOT** apply to customers using OS/2 for Windows. A ServicePak for OS/2 for Windows will be made available shortly.

A booklet of installation instructions is included with the ServicePak. Also, a README file contains technical considerations.

How to Obtain the ServicePak

You can download diskettes of the OS/2 2.1 ServicePak electronically, or you can order either the diskettes or CD-ROM of the ServicePak by mail. You can make as many copies of the ServicePak as you have licensed copies of OS/2 2.1. You may distribute copies to other licensed OS/2 2.1 owners.

Downloading Electronically

Electronic delivery of the ServicePak is available from the following electronic bulletin board systems if you have high-speed communications to download the diskette images:

CompuServe – Members of the CompuServe Information Service can download the ServicePak from the IBM OS2 FORUM library (GO IBMSERV).

Internet – Customers having access to Internet can download the ServicePak from the network. Customers should do an anonymous ftp to software.watson.ibm.com. The ServicePak is located in the /pub/os2 directory.

IBM OS2BBS – If you are a subscriber to the OS2BBS, you can download the ServicePak. It is located in the SOFTWARE DOWNLOAD library. If you are not a subscriber to the OS2BBS and wish to subscribe, please call 1-800-547-1283 within the USA.

IBM Personal Computer Company BBS – Customers can call the IBM Personal Computer Company BBS by dialing 1-919-517-0001 via a modem.

TOOLCAT OS2CSD (within IBM only) – IBM employees with access to the IBM VNET can download the ServicePak from the OS2CSD repository.

Some of these systems may not be available outside the United States. If these bulletin-board systems are not available in your country, contact your service representative or the place where you purchased OS/2 2.1.

Ordering by Mail

If you reside in the USA and have no access to any of the electronic bulletin-board systems, or if you need the ServicePak delivered on diskettes or CD-ROM, you may order it by calling 1-800-494-3044 and charging the shipping and handling fees to your credit card. You may also pay by check or purchase order. Two-day Express Mail service is used to deliver the ServicePak.

The diskette version of the ServicePak consists of twenty-one 3.5-inch diskettes or twenty-five 5.25-inch diskettes. The diskette version of the ServicePak will be shipped for a non-refundable fee of 40 US$ plus tax to cover the cost of the material, shipping and handling.

The CD-ROM version of the ServicePak costs a non-refundable 25 US$ plus tax.

When ordering by mail, please specify:

1. Whether you want the 3.5-inch diskette, 5.25-inch diskette, or CD-ROM version of the ServicePak. If you want diskettes, be sure to order the size that is bootable on your machine (typically, the size of your diskette drive A:).
2. A business or home street address (NOT a Post Office Box; the two-day Express Mail service cannot deliver to a P. O. Box).
3. A current credit card name, expiration date, and number to which the fee will be charged.

OR

4. Whether you choose to pay by check or purchase order.

The Developer Connection for OS/2, Volume 3

Volume 3 of The Developer Connection for OS/2 CD-ROM includes limited licenses to the following products.[2]

Bitmaps

BITMAP32: A 32-bit bitmap viewer (I)

Bitmap Samples: Samples of Developer Connection Bitmaps (I)

Communication Tools

Updated: APPC Games: A collection of three games CYCLES, REVERSI, and MANDPM (I)

Updated: APPC Utilities: A collection of six APPC command-line utilities (I)

New: AutoDisp: A graphical display of APPN resources (I)

IBM: Communication Manager/2: API programs & productivity aids

Updated: IBM: Communication Manager/2: Product & Applications: 3.5-Inch Diskettes

Updated: IBM: Communication Manager/2

New: Creative Systems: Golden CommPass (Demo)

OS/Tools Inc: COM/8 and COMscope: 3.5-Inch Diskette (Demo)

New: GOPHER: An OS/2 PM client for the Internet Gopher protocol (I)

New: GoServe: A Gopher Server for OS/2 2.x (I)

IBM: Networking Services/DOS: 3.5-Inch Diskettes

PMFTERM: An OS/2 asynchronous emulation and file transfer utility (I)

REXXAPPC: REXX Communications APIs (I)

IBM: TCP/IP for OS/2

[2] Keys to symbols:

(Demo)	Demo Products
(E)	Excerpts
(I)	IBM Internally-Developed Software
(P)	Pre-Release Software

Databases

DBMRPW: A database manager remote password administrator utility (I)

New: IBM: DataBase/2 for OS2

New: PrOffice: Personal Address Book/2 Light: 3.5-Inch Diskette (Demo)

Development Tools

Updated: ALPHA2: A code browser and analysis program (I)

New: IBM: APL2 For OS/2 (Demo)

ASDT32: An applications/system 32-bit debug utility (I)

New: BIDI: OS/2 Bidirectional Language SDK (P)

New: IBM: Cross System Products/2 AD: 3.5-Inch Diskettes (Demo)

Updated: CTFORMAT: A code and text formatter (I)

Data Access: DataFlex v3.0 (Demo)

Updated: IBM: Kernel Debugger: 3.5-Inch Diskettes

Updated: IBM: Kernel Debugger

IBM: Dialog Editor enhanced to support Pen for OS/2 (P)

New: DrDialog: A PM dialog editor for OS/2 (I)

Updated: EDITINI: An OS/2 text editor for .INI and profile files (I)

IBM: Graphics Interface Kit/2 (Demo)

Updated: HexDump: A hexadecimal display and conversion utility (I)

IBROW: An image browser utility (I)

IPFCPREP: A preprocessor for the IPF Compiler (I)

Transcendental Automation: LR by Transcendental Automation v1.0:

3.5-Inch Diskettes (Demo)

IBM: Object Utility/2 (P)

New: IBM: Pen for OS/2 Base (P)

New: IBM: Pen for OS/2 Base : 3.5-Inch Diskettes (P)

Updated: IBM: Pen for OS/2 Developer's Toolkit

Updated: IBM: Pen for OS/2 Developer's Toolkit : 3.5-Inch Diskettes

New: IBM: Personal AS Builder/2 Base (Demo)

New: IBM: Personal AS Builder/2 Development (Demo)

Updated: IBM: PL/I Workstation/2: 3.5-Inch Diskettes (Demo)

ATG Enterprises: PM Debug (Demo)

New: PMPRTF: Extends PRINTF to PM applications (I)

PMSPY32: OS/2 PM message spying program (I)

RXD: PM source level debugger for REXX (I)

RxMathFN: A REXX DLL with C-language math functions (I)

RXNETB: REXX APIs for the OS/2 NetBIOS (I)

Softbridge: Softbridge Basic Language (Demo)

New: SD386: Source level debugger for C (I)

IBM: Sniff16: A utility to search 16-Bit apps (P)

Updated: IBM: Software Installer for OS/2 (Demo)

New: IBM: SOMobject Base Toolkit: 3.5-Inch Diskettes

New: IBM: SOMobject Base Toolkit Documentation

Updated: IBM: The Developer's ToolKit for OS/2 2.1 Folder Creation

Updated: IBM: The Developer's Toolkit for OS/2 2.1

Updated: IBM: The Developer's Toolkit for OS/2 2.1: 3.5-Inch Diskettes

Updated: IBM: The Developer's Toolkit for OS/2 2.1: 5.25-Inch Diskettes

New: IBM: The Developer's Toolkit for OS/2 2.1 (Japanese): 3.5-Inch Diskettes

New: IBM: The Developer's Toolkit for OS/2 2.1 (Japanese)

Updated: IBM: The Developer's Toolkit for OS/2 1.3: 3.5-Inch Diskettes

Hockware: VisPro/REXX v1.1: 3.5-Inch Diskette (Demo)

Visual REXX2: A library of REXX functions that provide a PM interface (I)

New: IBM: XPG/4 Internationalization Library (P)

IBM: 32-bit OS/2 toolkit utilities (P)

New: One UP Corp: The S.M.A.R.T. Tool v1.0 (P)

Editors

New: CustEPM: A customized version of enhanced editor (I)

New: EnvEd: Environment Editor (I)

Updated: IBM: EPM: Enhanced Editor (P)

MicroEdge: SlickEdit v2.3 (Demo)

Updated: TINYED: A tiny OS/2 and DOS editor (I)

LAN Systems Tools

New: IBM: DCE for OS/2 Starter Kit (P)

New: IBM: DCE Client for OS/2 and Developer's Tools

New: Pinnacle Technology, Inc.: Desktop Observatory v3.0 (Demo)

New: DIRSTAT: A PM application that displays LAN adapter information (I)

New: IBM: DOS LAN Services: 3.5-Inch Diskette (P)

New: IBM: LAN Adapter Protocol Support for TCP/IP (P)

New: IBM: LAN Server APR and Sample Programs: 3.5-Inch Diskettes

New: IBM: MPTS AnyNet for OS/2: 3.5-Inch Diskettes

New: IBM: Network SignON Coordinator (Demo)

New: IBM: LAN Distance for OS/2: 3.5-Inch Diskettes (P)

New: Lotus: VIM Developer's Toolkit 2.0: 3.5-Inch Diskettes

Multimedia Tools

Updated: CD Explorer: A compact disc audio explorer (I)

IBM: MMPM2 v1.1 Base (Demo)

IBM: MMPM2 v1.1 Base: 3.5-Inch Diskettes (Demo)

IBM: MMPM2 v1.1 Base: 5.25-Inch Diskettes (Demo)

IBM: MMPM2 v1.1 Toolkit

IBM: MMPM2 v1.0 Toolkit and Base (Demo)

BOCASoft: BOCASoft System Sounds v1.0 (Demo)

BOCASoft: BOCASoft WipeOut v1.0: 3.5-Inch Diskette (Demo)

OS/2

New: IBM: OS/2 2.1 (Japanese) CD-ROM: 3.5-Inch Installation Diskettes (Demo)

New: IBM: OS/2 2.1 (Japanese): 3.5-Inch Diskettes (Demo)

Updated: IBM: OS/2 SMP CD-ROM: 3.5-Inch Installation Diskettes (P)

Updated: IBM: OS/2 SMP: 3.5-Inch Diskettes (P)

Product Overviews

IBM: AnDes: Animated Design/2 Overview (Demo)

New: IBM: DataGuide/2 v1.0 (Demo)

New: IBM: DCE (Demo)

New: IBM: IMS Client Server/2: 3.5-Inch Diskette (Demo)

New: IBM: LAN Systems (Demo)

IBM: Tutorial Manager/2 #1 (Demo)

IBM: Tutorial Manager/2 #2 (Demo)

New: IBM: VisualAge (Demo)

Productivity Tools

New: MHR Software & Consulting: ATS for OS/2 v2.0B (Demo)

Updated: BOOTOS2: An OS/2 bootable diskette creation utility (I)

Updated: CLOKGS: A digital/analog clock for your desktop (I)

New: ClipServ: TCP/IP clipboard server for OS/2 2.x (I)

Central Point: Anti Virus for OS/2 (Demo)

Updated: DINFO: A swapper file monitor (I)

FORBROWS: A forum browser (I)

New: GFOLDR: A folder subsections creator (I)

Updated: GSEE: A file search utility and batch file builder (I)

IMGTK16: The Image Toolkit (I)

MAGNIFY: An OS/2 desktop magnifier (I)

New: Megadesk: A desktop expander (I)

Updated: OS20MEMU: An OS/2 memory utilization utility (I)

New: PMCAM2: Saves pictures of PM screens into bitmaps/postscript files (I)

Updated: PmDraw!: An OS/2 graphics editor (I)

Updated: PMGB32: A display of planet Earth as a globe (I)

PMTIMER: An OS/2 program timer (I)

PMTREE: A graphical display of PM windows (I)

QCONFIG: A system configuration utility (I)

Updated: IBM: IBM Library Reader/2 (Demo)

SCRAP: A screen capture utility (I)

New: ShiftRun: Runs OS/2 program before IPL is completed (I)

Updated: IBM: SearchManager/2 (Demo)

New: Capstone Software: SpaceMap For OS/2 v1.0 (Demo)

Updated: TXT2PS: A text-to-postscript conversion utility (I)

Updated: UTIL2: AIX-like utilities for OS/2 (I)

ViewAll: An OS/2 program that displays all OS/2 books on the bookshelf (I)

Arcadia Technologies: Workplace Companion v1.53 (Demo)

Service

Updated: IBM: C Set++ for OS/2 Compiler CSD: 3.5-Inch Diskettes

Updated: IBM: C Set++ for OS/2 Compiler CSD

Updated: IBM: C Set++ for OS/2 2.0 Class Library CSD: 3.5-Inch Diskettes

Updated: IBM: C Set++ for OS/2 2.0 Class Library CSD

Updated: IBM: C Set++ for OS/2 2.1 Class Library CSD: 3.5-Inch Diskettes

Updated: IBM: C Set++ for OS/2 2.1 Class Library CSD

Updated: IBM: C Set++ for OS/2 Utilities CSD: 3.5-Inch Diskettes

Updated: IBM: C Set++ for OS/2 Utilities CSD

New: IBM: LAN System Service Pack: 3.5-Inch Diskettes

New: IBM: OS/2 2.1 CSD

New: IBM: OS/2 2.1 CSD: 3.5-Inch Diskettes

New: IBM: OS/2 2.1 CSD: 5.25-Inch Diskettes

New: IBM: CSDI for WorkFrame/2 2.1: 3.5-Inch Diskette

New: IBM: CSDI for WorkFrame/2 2.1

Source Code

New: Apple Computer, Inc.: OpenDoc components (P)

New: BIDISRC: OS/2 Bidirectional Language Support Developer's Kit Source Code (P)

BITMAP32: Source Code (I)

IBM: The Developer Connection News: Vol I, Multithreading PM Apps (I)

New: IBM: The Developer Connection News: Vol II, Dynamic Linking on OS/2 2.x (I)

New: IBM: The Developer Connection News: Vol II, Exception Management in 32-Bit OS/2 (I)

New: IBM: The Developer Connection News: Vol II, OS/2 and Win-OS/2 Communication (I)

New: IBM: The Developer Connection News: Vol III, M Shell (I)

New: IBM: The Developer Connection News: Vol III, StartDOS (I)

New: IBM: The Developer Connection News: Vol III, T Shell (I)

New: IBM: The Developer Connection News: Vol III, Transform Example (I)

New: IBM: The Developer Connection News: Vol III, 32-Bit Character-Mode APIs (P)

IBM: Doubplay: Multimedia Double Buffering Playlist C Samples (P)

Updated: GBM: Generalized bitmap module source code (I)

New: PMSPY32S: OS/2 PM Spying Source Code (I)

IBM: RIFFSamp: Multimedia RIFF Source Code (P)

IBM: A collection of Workplace Shell samples (P)

Updated: UTIL2: AIX-like utilities source code (I)

IBM: Workplace Shell IDL (P)

Test Tools

Softbridge: Automated Test Facility WorkStation and ATF Networked: 3.5-Inch Diskettes (Demo)

PMATE: An automated test environment with user input captured (I)

Updated: IBM: Workstation Interactive Test Tool: 3.5-Inch Diskettes (Demo)

On-Line Documentation

Updated: IBM, The Developer Connection News: Volumes 1 & 2

Updated: ComputerWorld On CD: Selected Articles 1991-1993

Wiley Professional Computing, Designing OS/2 Applications, by David Reich (E)

SAMS, OS/2 2.1 Unleashed, by David Moskowitz & David Kerr (E)

SAMS, Real World Programming for OS/2 2.1, by Blain, Delimon & English (E)

Apple Computer, Inc., OpenDoc White Paper

Apple Computer, Inc., OpenDoc Technical Summary

IBM, Communications Manager/2: ACDI Programming Reference

IBM, Communications Manager/2: Application Programming Guide

IBM, Communications Manager/2: Command Reference

IBM, Communications Manager/2: Message Reference

IBM, Communications Manager/2: Overview

IBM, Communications Manager/2: Problem Determination Guide

New: IBM, Communications Manager/2: Response File Reference

New: IBM, Communications Manager/2: APPN Programming Reference

New: IBM, Communications Manager/2: X25 Programming Reference

New: IBM, Communications Manager/2: Users Guide

New: IBM, Communications Manager/2: Glossary

New: IBM, Communications Manager/2: Device Driver Programming Reference

New: IBM, Communications Manager/2: EHLLAPI Programming Reference

New: IBM, Communications Manager/2: PCM Development Guide

New: IBM, Communications Manager/2: CMI Programming Reference

New: IBM, Communications Manager/2: LUA Programming Reference

New: IBM, Communications Manager/2: SPRI Programming Reference

New: IBM, Communications Manager/2: SPAR/ROPS Programming Reference

New: IBM, LAN Systems: CID Enablement of DOS LANs

New: IBM, LAN Systems: LAN Server v 3.0

New: IBM, LAN Systems: LAN Server Ultimedia

New: IBM, LAN Systems: National Language Support Library

New: IBM, LAN Systems: DCE Concepts

New: IBM, LAN Systems: CID Enabled Applications

New: IBM, LAN Systems News

New: IBM, PSP's LAN Systems Solutions

IBM, OS/2 2.1 Technical Update

IBM, OS/2 Application Developer Training

IBM, PM Programming Guide Volumes 1, 2, and 3

New: IBM, PM Programming Reference: Data Types

New: IBM, PM Programming Reference: Graphic Functions

New: IBM, PM Programming Reference: Hooks

New: IBM, PM Programming Reference: Message Processing

New: IBM, PM Programming Reference: Profile Functions

New: IBM, PM Programming Reference: Window function

New: IBM, PM Programming Reference: Workplace

IBM, Red Book Volume 1: Control Program

IBM, Red Book Volume 2: DOS and Windows Environment

IBM, Red Book Volume 3: PM and Workplace Shell

IBM, Red Book Volume 4: Application Development

IBM, IPF Reference

IBM, Debug Kernel Reference

IBM, Application Design Guide

IBM, CP Guide and Reference

IBM, Tools Reference

IBM, SOM Reference

IBM, REXX Reference

IBM, REXX Users Guide

IBM, OS/2 v2.1 Virtual Device Driver Reference

IBM, OS/2 v2.1 Presentation Driver Reference

IBM, OS/2 v2.1 Physical Device Driver Reference

IBM, OS/2 Command Reference

Ordering The Developer Connection for OS/2

If you live in the United States, Canada, Mexico, Brazil, or the Asia/Pacific countries, call the appropriate number listed below. Asia/Pacific customers must ensure that they dial the international access code applicable to their specific country before dialing the listed phone number. Note that 61 is the country code for Australia.

Geography	**Call**
Asia/Pacific	61-2-354-7684
Brazil	0800-111205
Canada	1-800-561-5293
Mexico	91-800-000639
Mexico — Mexico City	627-2444
United States	1-800-6-DEVCON (1-800-633-8266)

If you live in Europe, the Middle East, Africa, or Latin America, you can order The Developer Connection for OS/2 from the IBM Software Manufacturing Centre in Copenhagen, Denmark. Operators speaking the languages below are available. Please ensure that you dial your country's international access code before dialing the listed phone number. Note that 45 is the country code for Denmark.

Language	**Call**
Dutch	45-4-810-1400
English	45-4-810-1500
French	45-4-810-1200
German	45-4-810-1000
Italian	45-4-810-1600
Spanish	45-4-810-1100
Telefax	45-4-814-2207

Bento and OpenDoc Materials in Developer Connection Volume 3

Volume 3 of The Developer Connection for OS/2 contains Bento alpha and OpenDoc pre-alpha code for OS/2. SOM is already included in OS/2, and a full SOM Developer's Toolkit can be obtained by ordering the SOMobjects Developer's Toolkit from IBM.

Background

OpenDoc is one of four technologies to be licensed by the Component Integration Laboratory (CILab), as announced in September 1993. CILab's initial supporters include Apple, IBM, Novell, Oracle, SunSoft, Taligent, WordPerfect, and Xerox, with many others expected to join, ensuring the success and acceptance of the CILab technologies in the marketplace. Together, the four initial technologies, and others adopted by CILab in the future, will provide a dramatically higher level of interoperability for applications on all major desktop platforms.

Four Key Technologies

CILab initially plans to license these four key technologies to the industry:

OpenDoc software architecture for Windows, OS/2, Macintosh, and UNIX, to enable embedding of features from different applications into a single working document.

Bento, for the storage and interchange of multimedia information.

Open Scripting Architecture (OSA), for the coexistence of multiple scripting systems.

IBM's System Object Model (SOM) architecture, a highly efficient platform and language-independent runtime mechanism for dynamic object linking.

CILab plans to make source code available to the industry for these technologies, and its sponsors plan to support the technologies across multiple platforms. Initial target platforms include Microsoft Windows, Macintosh, and OS/2, with plans to support UNIX systems.

Bento and OpenDoc Content in Developer Connection Volume 3

The Bento content in Volume 3 of The Developer Connection includes a code overview, the Bento specification, Bento sample handlers, and headers for both Bento and debug. This alpha is sufficient to become familiar with Bento, to perform high-level Bento designs, and to create sample programs that interface with Bento.

The OpenDoc content includes an OpenDoc white paper, the OpenDoc technical summary (57 pages), the complete OpenDoc Class Reference (API specifications, 480 pages), and the OpenDoc headers. This pre-alpha is sufficient to become familiar with OpenDoc APIs and headers, and to perform high-level OpenDoc designs.

IBM plans to ship the full OpenDoc alpha with the next quarterly Developer Connection CD-ROM in June. Shortly thereafter, a full beta will be released through the OS/2 2.x beta program.

FREE SOMobjects Developers Seminar Features Direct-to-SOM Compilers

IBM Personal Software Products announces its first SOMobjects Developers Seminar, to be held at the IBM programming laboratory in Austin, Texas on 21 and 22 April 1994.

Sponsored by IBM and MetaWare, this is a technical conference for C++ vendors who are serious about reusable objects and a reusable object marketplace. The seminar will feature beta versions of C++ Direct-To-SOM compilers from IBM and MetaWare, and will include hands-on time in the lab, with sample code. Lab time will also be available for you to try the new compilers with some of your own code if you wish. The compiler developers and SOM developers will be available to work with you in the lab.

Beyond the technical core, we intend to brief you about the IBM Object Strategy, including SOM, Distributed SOM (DSOM), the OpenDoc compound document model, and Taligent. Furthermore, we will discuss marketing opportunities that may assist you in marketing your SOM-enabled class libraries.

As you know, object class libraries have taken off more slowly than anticipated. A key missing component is a widely supported, vendor- and language-neutral object standard that supports the distribution of binary objects. SOM is that standard. SOM allows you to package your classes in a binary form that delivers the promise of objects: reusable, pluggable objects with true implementation encapsulation — and the new Direct-To-SOM compilers will make it easier than ever to do!

As a standard, SOM has taken on a life far beyond IBM. Within various products, SOM has been endorsed by Apple, Borland, Digitalk, Hewlett-Packard, MetaWare, Novell, ParcPlace, Semantec, Sun, Taligent, and WordPerfect. DSOM is currently the most robust CORBA 1.1-compliant Object Request Broker. SOM is the basis for OpenDoc, a vendor-neutral standard for document-centric applications.

Highlights

21 and 22 April 1994 in IBM's Austin Programming Laboratory

No registration fee

Free copy of the IBM SOMobjects Toolkit (OS/2 or AIX version)

Free beta copy of C++ Direct-To-SOM compiler (OS/2 or AIX version)

Free T-Shirt

Who Should Attend

Object-oriented programmers/designers interested in the benefits of SOM/DSOM, C++ Direct-To-SOM compilers, and the IBM Object Strategy.

Hands-on code developers (invited to bring some of your own source code and make files to try out with C++ Direct-To-SOM compilers).

Tentative Agenda

Thursday 21 April

8:00	–	8:30	Coffee and Welcome
8:30	–	9:00	IBM: Bleeding Objects
9:00	–	10:00	IBM Object Strategy
10:00	–	10:15	Break
10:15	–	11:45	SOM Developement
11:45	–	12:45	Lunch
12:45	–	2:45	C++ Direct-To-SOM Development
2:45	–	3:00	Break
3:00	–	5:00	Hands-On Direct-To-SOM Lab
7:00	–	11:00	Direct-To-SOM: Open Lab

Friday 22 April

8:00	–	8:30	Coffee and Welcome
8:30	–	9:00	Object Marketing Opportunity
9:00	–	10:00	Distributed SOM Development
10:00	–	10:20	Break
10:20	–	11:20	Metaclass Programming
11:20	–	2:00	Hands-On Direct-To-SOM Lab
2:00	–	3:00	C++ Direct-To-SOM Products
3:00	–	3:15	Break
3:15	–	4:30	CILab/OpenDoc Technical Overview
3:15	–	...	Direct-To-SOM Open Lab
4:30	–	5:00	Question-and-Answer Session

Enrollment Deadline

The enrollment application is furnished below. Please fill it out and fax it to IBM at 1-512-823-3047 no later than 29 March.

Due to limited seating, we cannot guarantee enrollment. You will be notified of your enrollment status by 1 April 1994. If we cannot accommodate you in this seminar, we will put your name on our priority list for our next seminar.

APPLICATION FOR ENROLLMENT

FREE SOMobjects Developers Seminar
Sponsored by IBM and Metaware
Featuring C++ Direct-To-SOM Compilers

IBM Austin Lab
21 and 22 April 1994

Company Name: _____

Address: _____

City, State: _____ Zip _____

Phone: _____ Fax: _____

Name(s) of Person(s) Attending: Title(s)

1 _____ _____

2 _____ _____

Development platform interested in: OS/2 ____ AIX ____
(determines version of free SOMobjects Toolkit and beta)

Do you plan to participate in the structured hands-on lab sessions with sample code?
Yes ____ No ____

Do you plan to bring some source code for use in the open lab?
Yes ____ No ____

Which C++ compiler do you use? _____

Please fax this form to us at 1-512-823-3047 no later than 29 March 1994.

C++ and Object-Oriented Education on CD-ROM

This material is adapted from a review by Viktors Berstis, IBM Personal Software Products, Austin, Texas.

There is an outstanding new multimedia tutorial on C++ that IBM produces on CD-ROM. It is a good tutorial on C++ that gets into quite a bit of depth, complete with code examples and problems that you might encounter. Because it is about C++, it also covers the usual object-oriented concepts. If you have one of the supported sound cards, it will explain the topics as it proceeds. This is particularly useful when you are looking at code — it is easier to listen to the speaker while viewing a code sample, rather than reading the text in a window that obscures the underlying screen.

At first, I was skeptical that this tutorial would have enough depth to be worthwhile. However, after running it, I found that it does an excellent job of working from a high level to more and more depth.

This kind of CD-based multimedia tutorial is definitely the correct way to educate the millions of programmers about C++ and object-oriented technology.

It takes about 2 to 3 days to go through the entire tutorial. The tutorial currently runs under both OS/2 and DOS. It has thus far been authored using Linkway Live 1.0, and plans are in place to migrate to Ultimedia Builder/2.

Its suggested retail price is 135 US$. Contrast this price with a conventional C++ and object-oriented course for which you have to spend at least one thousand dollars for the course, travel, and hotel, and then share the course with 24 other attendees.

This tutorial CD-ROM is currently in a pre-release run of 2,000 copies, and it is being sold externally. The generally available version should be released this summer. It will most likely have further improvements, but by my standards, this pre-release version is a winner.

Customers outside IBM can order this CD-ROM by calling 1-800-879-2755 within the USA only. IBM employees can use PUBORDER and specify order number SK2T-1158.

IBM SOMobjects Developer Toolkit, Workstation Enabler, Workgroup Enabler Version 2.0 for Windows

SOMobjects Developer Toolkit for Windows is an object-oriented programming development product. System Object Model (SOM) technology and tools help programmers create object-oriented class libraries. Objects/classes can be created in one programming language and accessed from a different programming language. Code can be reused to extend beyond single language boundaries, making the benefits of object-oriented programming (OOP) far more open and expansive. The Toolkit includes language bindings for use with C and C++ programming languages.

SOMobjects Developer Toolkit for Windows is fully compliant with the Common Object Request Broker Architecture (CORBA) specification of the Object Management Group (OMG). The Workstation and Workgroup Enabler programs enable the execution of SOM-based applications. With these packages, the product set also provides distributed object capability across:

Processes or address spaces in a single workstation

Multiple workgroup nodes in a workgroup LAN configuration

These products are also available for OS/2 and AIX, as announced in June 1993.

Highlights

SOMobjects for Windows expands object technology to an environment beyond the limits of language-bound facilities — fully open, fully distributed, heterogeneous, multi-platform.

Language-neutral objects/class libraries

Productivity aid for applications developers

Transparent access to remote objects

Object modification without recompiling applications

Distributed LAN support

CORBA compliant

Multiple platforms:

- OS/2
- AIX/6000
- Windows

SOM Technology Advantages

With SOM technology, objects and object definitions can be accessed and manipulated irrespective of the programming language. SOM makes objects language-neutral. It preserves key object-oriented characteristics without requiring the user of a SOM class and the implementer of a SOM class to use the same language.

The objective of the SOM technology is not to replace existing programming languages, but rather to allow applications written in different programming languages to use a common class library. This technology

also allows for modifying or extending such libraries without having to recompile existing applications. The Toolkit includes language bindings for use with C and C++ programming languages.

The product also provides distributed SOM capability, enabling transparent access to remote objects in a distributed environment. The Workstation Enabler package provides execution-time enablement of cross-process capability in a single machine. The Workgroup Enabler package provides for execution of distributed SOM-based applications in a multi-node distributed configuration.

A major benefit of these products is the enabling of true binary “black-box software reuse.” It makes a software components industry not only feasible but practical.

OMG CORBA-Compliant

The product supports OMG's Interface Definition Language (IDL), as well as OMG's CORBA specification for the distributed object request broker function.

Workstation and Workgroup DSOM

The Workstation DSOM (distributed SOM) function provides support for cross-process and for cross-address-space transparent access to objects in a single system (machine) environment. The Workgroup DSOM capabilities provide the ability to define or access objects remotely in a distributed workgroup LAN configuration.

Binary Compatibility

SOMobjects for Windows implementation allows class libraries to be modified or replaced without recompiling applications (as long as the new class or library doesn't require changes in the application's source code). This is not the case in today's object-oriented environments. However, it is essential if system-provided, object-oriented application frameworks are to be used by software vendors, since end-users will not have access to applications' source for recompilation when new releases of a system library are installed.

Product Positioning

The IBM SOMobjects Developer Toolkit for Windows is a toolkit that provides an open, standards-compliant, object-oriented development environment on the Windows platform. The product provides distributed, language-neutral capabilities for defining and manipulating objects/class libraries. It provides long-needed technology for breaking the language barriers that have confined object-oriented programming development environments to language-related exclusive islands. SOM-based objects can be truly open and shared, in any application language, and distributed across heterogeneous networks.

Publications

Publications relevant to SOMobjects for Windows are delivered with the software. Publications for SOMobjects can also be ordered as a set; call 1-800-342-6672 and use part number 96F8649. Publications are in English only.

The SOMobjects Publications Set includes:

SOMobjects Developer Toolkit Installation/ Configuration Guide V 2.0

SOMobjects Developer Toolkit Users Guide V 2.0

SOMobjects Developer Toolkit Programmer's Reference V 2.0

SOMobjects Developer Toolkit Emitter Framework Guide and Reference V 2.0

SOMobjects Developer Toolkit Collection Classes Reference Manual V 2.0

SOMobjects Developer Toolkit Quick Reference Guide V 2.0

SOMobjects Developer Toolkit Installation/ Configuration Guide for Windows

Hardware Requirements

Computer system: any computer system that supports Windows 3.1 or later

For the Developer Toolkit:

- Memory: 4 MB (including the operating system)
- Hard Disk: 11 MB without samples built, 14 MB with samples built

For the Workstation Enabler:

- Memory: 4 MB (including the operating system)
- Hard Disk: 4 MB

For the Workgroup Enabler:

- Memory: 4 MB (including the operating system)
- Hard Disk: 4 MB

In order to execute distributed SOM-based applications (DSOM) across a network, one of the following communications transport facilities is required:

On Windows platform: NetWare IPX/SPX or NetBIOS.

To use the replication framework, a shared file system is required.

Software Requirements

The basic prerequisite for the SOMobjects for Windows is the supported operating environment Windows 3.1 or later. In order to develop SOM-based applications, the programming language used must have integrated SOM support or have SOM language bindings provided. The SOMobjects Toolkit contains language bindings for C and C++. In order to execute SOM-based applications in a distributed environment, across a network, the following communications transport protocols are required:

For Windows 3.1 to Windows 3.1 — NetBIOS, or NetWare IPX/SPX

For Windows 3.1 to OS/2 — NetBIOS, or NetWare IPX/SPX (for SOMobjects on OS/2, refer to Software Announcement 293-319 dated 15 June 1993).

Packaging

The SOMobjects Developer Toolkit for Windows is distributed in one package with the following materials:

IBM Program License Agreement

Proof of License

License Information Booklet

Service Statement

Four 3.5-inch program diskettes, containing the program binaries

SOMobjects Developer Toolkit Installation/Configuration Guide for Windows

SOMobjects Developer Toolkit Users Guide V 2.0

SOMobjects Developer Toolkit Programmers Reference Manual V 2.0

SOMobjects Developer Toolkit Emitter Framework Guide and Reference V 2.0

SOMobjects Developer Toolkit Collection Classes Reference Manual V 2.0

SOMobjects Developer Toolkit Quick Reference Guide Version 2.0

The Workstation Enabler for Windows 3.1 package contains the following:

IBM Program License Agreement

Proof of License

License Information Booklet

Service Statement

Two 3.5-inch program diskettes, containing the program binaries

SOMobjects Workstation Enabler Installation/Configuration Guide For Windows

The Workgroup Enabler for Windows 3.1 package contains the following:

IBM Program License Agreement

Proof of License

License Information Booklet

Service Statement

Two 3.5-inch program diskettes, containing the program binaries

SOMobjects Workgroup Enabler Installation/Configuration Guide For Windows.

The separately orderable set of publications for SOMobjects Developer Toolkit will be distributed in a single package with the following contents:

SOMobjects Developer Toolkit Installation/Configuration Guide V 2.0

SOMobjects Developer Toolkit Users Guide Version 2.0

SOMobjects Developer Toolkit Programmers Reference Manual V 2.0

SOMobjects Developer Toolkit Emitter Framework Guide and Reference V 2.0

SOMobjects Developer Toolkit Collection Classes Reference Manual V 2.0

SOMobjects Developer Toolkit Quick Reference Guide V 2.0

SOMobjects Developer Toolkit Installation/Configuration Guide for Windows

Planned Availability Dates

SOMobjects Developer Toolkit and Workstation Enabler: 29 April 1994 (English), 31 May 1994 (Japanese)

SOMobjects Workgroup Enabler: 30 June 1994 (English), 29 July 1994 (Japanese)

Additional Licenses

An Additional License Certificate authorizes the customer who has a program package to make a single copy of the program diskette and printed documentation.

Charges

Part Number	Program Name	One-Time Charge
96F8850	SOMobjects Developer Toolkit V 2.0 for Windows (3.5-inch diskettes)	365 US$
96F8824	SOMobjects Workstation Enabler V 2.0 for Windows (3.5-inch diskettes)	75 US$
96F8831	SOMobjects Workgroup Enabler V 2.0 for Windows (3.5-inch diskettes)	235 US$
96F8818	SOM Developer Toolkit V 2.0 for Windows, Additional License Certificate	295 US$
96F8825	SOMobjects Workstation Enabler V 2.0 for Windows, Additional License Certificate	60 US$
96F8827	SOMobjects Workstation Enabler V 2.0 for Windows, Additional License Certificate, 5-Pack	135 US$

Part Number	Program Name	One-Time Charge
96F8829	SOMobjects Workstation Enabler V 2.0 for Windows, Additional License Certificate, 20-Pack	300 US$
96F8832	SOMobjects Workgroup Enabler V 2.0 for Windows, Additional License Certificate	200 US$
96F8834	SOMobjects Workgroup Enabler V 2.0 for Windows, Additional License Certificate, 5-Pack	450 US$
96F8836	SOMobjects Workgroup Enabler V 2.0 for Windows, Additional License Certificate, 20-Pack	1000 US$

Ordering Information

Orders for new licenses are being accepted now. Shipments will begin on the planned availability dates. To order, call 1-800-342-6672 and refer to the part numbers above.

Tools Added to DAPTOOLS Thus Far in 1994

Here is the list of programming tools added to the DAPTOOLS repository thus far in 1994. DAPTOOLS are licensed to members of IBM Developer Assistance Programs for their exclusive use.

BIGCLP — This Windows program automatically saves all clipboard updates in a PC file. Text sent to the clipboard by means of Cut or Copy is appended to a file.

BKMIPF — Demonstrates tips and techniques for maintaining both a BookMaster version and IPF version of a document. Also great as a practical demo of some nice IPF features, including BMPs and PSEGs, hypertext, and hypergraphic links. Full source and formatted output included.

ECPIC — ECPI-C is a 16-bit OS/2 version of the common CPI-C code base shared between AnyNet, Person-to-Person for APPC, Communications Manager/2, and SNA for Workplace OS. ECPI-C may be considered a beta program for the common code shared by these products. ECPI-C offers most CPI-C 1.2 calls and some of the CPI-C 2.0 calls. Significant function includes full-duplex support (native and simulated) and non-blocking support (native and simulated).

INIE — An OS/2 .INI file editor by which any proper .INI — not just OS2.INI — may be opened and modified.

JAGSPD — JagSpeed/2 is a 32-bit OS/2 2.X PM file manager. Unlike OS/2's Drives program, JagSpeed/2 looks like traditional DOS full-screen file managers, but makes use of the advanced features of OS/2, including the Presentation Manager user interface and multitasking. In addition to all the usual features you would expect, you are able to compare subdirectories, calculate file sizes, and interact with a command line to minimize any typing you might do.

MYASST — Syntax assistance, PM, OS/2, C/2, E3, EOS2, EPM, Bookmaster. MYASSIST gives you the ability to create your own syntax assistance file with your favorite abbreviations and their corresponding replacement strings.

OSCALL — Analyzes and reports the OS/2 APIs called and/or not called by one or more 16-bit or 32-bit executable files without requiring their source code. Great for determining the APIs covered by test cases.

PERFMN — PERFMON adds profiling hooks to a C source and analyzes the run-time behavior of a process.

RACERX — A multipurpose utility written in REXX to aid users of the Workplace Shell. It has the ability to display bitmaps; add, display, and delete Association types; associate icons with files; etc.

RXPREP — A pre-processor for REXX source. Permits source to be built from multiple imbed members. Nested imbedding. Conditional processing inclusion of source. Global, local and system variable substitution. Can also be used as a generailised (non-REXX) source pre-processor. Includes fixes and a sample exec to pre-process.

SD386 — SD386 is a source-level debugger for C and PL/X-86 source. It has full-screen debugging facilities for the OS/2 32-bit environment. Text-mode, PM, EXE, and DLL files, multi-threaded apps, 16- and 32-bit apps running under OS/2 2.0 are supported.

TOPS — Fast image printing on postscript printers. TIFF, Targa, PCX, BMP, and VID formats at ≥ 8bpp.

2XVFNT — Alternate set of fonts for VGA and BGA (8514/A) for OS/2, Windows, and Communications Manager/2 3270 emulator windows.

IBM Device Driver Source Kit (DDK) for OS/2

The IBM Device Driver Source Kit (DDK) for OS/2 is a CD-ROM that includes a large sampling of OS/2 device-driver source code, test tools, and online documentation. This information is provided to Independent Software and Hardware Vendors to enable rapid development of new OS/2 device drivers for OEM hardware.

The CD is refreshed a few times each year with the latest level of source code, new tools, documentation enhancements, and improvements to the user interface. Customers licensing the program receive the current CD and all generally available updates for a year from their ordering date.

Technical support for device-driver development is provided through a bulletin-board system (BBS), called the DUDE, operated by the Driver Development Support Center. Using a modem, call 1-407-982-3217, or by voice phonemail, 1-407-982-4239.

DDK Contents

The DDK product consists of the following:

Over 100 drivers and utilities for the following device categories:

- Display
- Printer
- Storage (DASD, SCSI, non-SCSI, CD-ROM, and PCMCIA)
- Input/Output (Keyboard, Mouse, Pen, Touch Screen, Serial, Parallel)
- Multimedia
- Physical and Virtual Device Drivers
- Double-Byte Character Set (DBCS)

The Win-OS/2 Device Driver diskette, a free supplement to the CD-ROM for licensed Microsoft Windows 3.1 DDK users who certify that they are licensed.

Three debuggers, including all 2.x levels of the OS/2 Debug Kernel

Online device-driver references (also available in print):

- Printer
- Display
- Storage
- Input/Output
- Pen for OS/2
- Multimedia (MMPM/2)
- Physical
- Presentation
- Virtual

Other online references:

- Using Your DDK
- OS/2 Debug Kernel
- ASDT32 Debugger
- Trace Customization (TRCUST)
- Interactive Productivity Facility (IPF) Guide and Reference

The most recent issue of The Developer Connection News

Customers receive all future DDK releases for one year from the ordering date. The contents of subsequent releases are cumulative.

Prices

CD-ROM: 199 US$, plus shipping and handling. There is no volume discount for the DDK.

Publications: US$ 29 each, plus shipping and handling. There is no discount for purchasing multiple copies, more than one reference, or the library (all references).

System Requirements

Hardware:

A computer supported by OS/2 2.x

Recommended 8 MB (or greater) system memory

20 MB up to 130 MB (HPFS) or 180 MB (FAT) hard disk

One OS/2-supported CD-ROM drive

If the Win-OS/2 Version 3.1 Seamless Device Driver Supplement is subsequently requested, one 1.44 MB 3.5-inch diskette drive is required

Software:

OS/2 2.0 with Service Pack XR06055, or OS/2 2.1. The device drivers furnished in the DDK are for OS/2 2.0 or higher.

Technical Support

Support is available from the IBM Driver Development Support Center. To gain access, call via modem to 1-407-982-3217, or for telephone support via phonemail, call 1-407-982-4239.

DDK Version 1.2 Highlights

Released in March, 1994, DDK version 1.2 extends the wide variety of OS/2 device-driver samples, related utilities, and information. New items include:

New drivers and tools:

- 32-bit PMVIDEO (S3/XGA/8514)
- Enhanced 32-bit PMPrint Queue
- 32-bit Plotter (beta)
- Mitsumi Non-SCSI CD-ROM
- PCMCIA Data/Fax Modem Client Services
- Enhanced 32-bit Parallel Port
- 16-bit ProAudio Spectrum 16
- DBCS Display
- Parallel Port
- Verification Test Tools for multimedia and CDROMs

OS/2 Debug Kernel (3 new levels)

Volume 3 of The Developer Connection News

Specific Drivers

In the following lists of specific drivers, the numbers in parentheses refer to these products:

Display Device Drivers

- 16-bit VGA[3]
- 16-bit 8514[3]
- 32-bit VGA[4]
- 32-bit SVGA 256[4]
- 32-bit PMVIDEO (merged S3/XGA/8514 drivers)[35]
- 32-bit ISO Fonts[3]
- VGA/8514 Base Video Handler[36]
- SVGA Base Video Handler[3 6]
- SVGA Utility[3 6]

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[3] Microsoft Macro Assembler V5.1 (MASM) used (included in the DDK).

[4] Microsoft Macro Assembler V6.0 used.

[5] Microsoft 386 C Compiler (CL386) used (included in the DDK).

[6] Microsoft C Optimizing Compiler (CL) Version 6.00A used.

- Virtual Video[3] [5]
- Virtual XGA Video[3] [5]
- Screen Base Video Family 1[3]
- Screen Base Video Family 2[3]

Printer Device Drivers

- 16-bit Plotter[3] [6]
- 32-bit Plotter (beta)[3] [7]
- 32-bit 42XX Rasterizing Sample[3] [7]
- 32-bit PostScript[3] [7]
- 32-bit Mini-Driver Rasterizing Sample[7]
- 32-bit PMPrint Queue[7]
- 32-bit Serial Port[7]
- 32-bit Parallel Port with Sharing Support[7]
- 16-bit Parallel[3] [6]
- 16-bit Virtual Parallel[3] [5]

CD-ROM Device Drivers (16-bit)

- CD-ROM Device Manager[3] [6]
- Virtual CD-ROM Device Manager[3] [5]
- Hitachi CD-ROM Filter[3] [6]
- NEC CD-ROM Filter[3] [6]
- Sony CD-ROM Filter[3] [6]
- Toshiba CD-ROM Filter[3] [6]
- Mitsumi CD-ROM Adapter (non-SCSI)[3] [6]

DASD Device Drivers (16-bit)

- OS/2 DASD Device Manager[3] [6]
- Removable DASD Conversion Filter[3] [6]
- Adapter Presence Detection Sample[3]
- Adapter for ST506/IDE DASD[3] [6]
- Adapter for ABIOS DASD[3] [6]
- Virtual Disk (MVDM Support)[3] [6]
- Protected Mode VDisk (RAM Disk)[3]
- Adapter Presence-Check Services (TESTCFG)[3] [6]

SCSI Device Drivers (16-bit)

- OS/2 SCSI Device Manager[3] [6]

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[7] IBM C Set/2 (ICC) Compiler used.

- Adapter Driver For ABIOS SCB[3] [6]
- OS/2 ASPI Device Manager[3] [6]

Diskette Device Drivers (16-bit)

- Adapter Driver for ABIOS Floppy[3] [6]
- OS/2 ISA/EISA Floppy[3] [6]
- Virtual Floppy[3] [5]

PCMCIA Device Drivers

- Client Services Sample[3] [6]
- Data/Fax Modem Client Services Driver[3] [6]

Mouse Device Drivers (16-bit)

- Mouse (Device-Independent)[3]
- Mouse (Device-Dependent)[3]
- Virtual Mouse[3] [5]

Keyboard Device Drivers (16-bit)

- Family 1 Keyboard[3]
- Family 2 Keyboard[3]
- Virtual Keyboard[3] [5]

8516 Touch Device Drivers (16-bit)

- Touch Device-Independent[6]
- Touch Device-Dependent[6]
- Virtual Touch[3] [5]

Serial (Communication) Device Drivers (16-bit)

- Asynchronous[3] [6]
- Virtual Serial[3] [5]

Parallel (Communication) Device Drivers (16-bit)

- Parallel Port[6]
- Virtual Parallel

Clock Device Drivers

- Family 1 Clock[3]
- Family 2 Clock[3]

Pen for OS/2 Device Drivers

- Pen for OS/2 Include File[3]
- Serial Digitizer[3]

Multimedia Device Drivers

- 16-bit Pro Audio Spectrum 16[4] [6]
- MMPM/2 Device Drivers:

- — 16-bit Audio PDD Sample[4] [6]
- — 16-bit Audio VDD Sample[4] [6]
- — Generic Audio Installation Sample[7]
- — Generic Video Installation Sample[7]
- — Audio Vendor-Specific Driver (VSD) Resource File Sample
- — Video Capture Adapter PDD[3]
- — Video Capture Adapter VSD[7]

Double-Byte Character Set (DBCS) Drivers

- – VGA/SVGA PM Display[4]
- – VGA/SVGA Virtual Video[3] [5]
- – Base Video Handler[3] [6]
- – Base Video Handler for Windowed Session[3] [6]
- – Base Video Screen[3] [6] [5]
- – PM Font Support[3] [6]

Win-OS/2 Device Drivers

- – VGA Display
- – Communication
- – Mouse
- – The Win-OS/2 Device Driver diskette is a free supplement to the
- – CD-ROM. You must be a licensed Microsoft Windows 3.1 DDK user,
- – however. Customers must sign and return a certification card
- – supplied in the CD-ROM package to receive the supplement.

Specific Tools

The build tools facilitate the development of the device drivers, and the test tools verify the quality of the developed drivers. Many drivers include test cases that will facilitate construction of test cases for new drivers.

The following tools are included:

SVGAINST Action Routine Sample[7]

Paldisp[7]

32-bit Display Test Tool[7]

32-bit Font Test Tool

32-bit Printer Test Tool (beta)[7]

CD-ROM Test Tool

Pen for OS/2 Test Tool[3] [7]

Pen for OS/2 Calibration Tool[3] [7]

MMPM/2 Audio Device Driver Exerciser Tool[7]

MMPM/2 AP2/P2STRING Audio/Video Test Tool and Suites

MMPM/2 MCI String Test Tool[7]

Miscellaneous Tools

DELDDK: Deletes an old version of the DDK from the hard disk.

DELREF: Utility to view references directly from CD.

NSYNC: Provides file synchronization.

QSYSTEM: Provides hardware information.

TRCUST: Dynamic trace customizer.

Debuggers

OS/2 Debug Kernel

- Level 6.307 (2.0 GA)
- Level 6.427 (2.0 ServicePak 1)
- Level 6.454 (2.1 Pre-load)
- Level 6.466 (2.0 Pre-load Backup)
- Level 6.514 (2.1 GA)
- Level 6.543 (2.0 ServicePak 2)
- Level 6.617 (2.11 Manufacturing Refresh 1)
- S3, Level 6.599 (S3 Video)

ASDT32

Debugo

How to Order

To order the IBM Device Driver Source Kit for OS/2:

Within the USA, call 1-800-633-8266.

Within Canada, call 1-800-465-7999.

Within Asia/Pacific countries, call +61-2-354-7684 (in Sydney, Australia).

In Latin America (except Brazil and Mexico), Europe, the Middle East, and Africa, the phone number to call depends on the spoken language. All numbers listed below are in Copenhagen, Denmark (country code 45).

Language	Call
Dutch	45-4-810-1400
English	45-4-810-1500
French	45-4-810-1200
German	45-4-810-1000
Italian	45-4-810-1600
Spanish	45-4-810-1100

Within Brazil, call (021) 800-6120, or fax to (021) 800-6936.

Within Mexico:

Within Mexico City, call 627-2444

Outside Mexico City, call 91-800-00639

Device-Driver Development Support Center News

The numbers tell the story! Interest and demand for device drivers for OS/2 2.1 has reached another milestone: the DUDE, the BBS managed by the IBM Driver Development Support Center (DDSC), has become a Kilo-DUDE, or K-DUDE!

DUDE Usage Surges

The DUDE (which stands for Dynamic Upload/Download Environment) was started by the DDSC team less than a year ago as a dedicated support mechanism for device-driver developers. DUDE membership has surged in recent weeks, and is now over 1,000 users.

FREE Device-Driver Workshops Fill Up

Further evidence of the rapidly accelerating acceptance of OS/2 2.1 as the premier PC operating environment is the increase in enrollments for the FREE device-driver workshops conducted by the DDSC. These workshops were held in Boca Raton seven times during 1993. Already in 1994, with 12 workshops scheduled for the year, the first two saw full attendance, and additional enrollees are registered for all of the upcoming FREE workshops through December.

More Information

See the 15 December 1993 and 15 January 1994 issues of this newsletter for 1994 device-driver workshop schedules and descriptions, or call Bob Peterson at 1-407-443-8289 or Jim Bennett at 1-407-982-4143.

As new technology becomes available, we will respond with the appropriate workshops. But, we still look to you, our customer, to let us know what workshops you need that we currently do not offer. Don't be shy ... send us D-Mail via the DUDE!

Joining the DUDE

If you are a device-driver developer, register with us by using the DUDE. Use your modem to call 1-407-982-3217, N,8,1 at 14.4 Kbps.

Joining the DUDE will ensure that the DDSC team can provide you with support in your driver development efforts. As a bonus, when your driver is completed, you can use the latest service of the DUDE, DUDE-ADS, to help increase the visibility of your product offering.

Welcome to the club — Club DUDE!

Device-Driver Source Kit Future Directions

This material comes from the January 1994 issue of DDK Update, a hardcopy publication sent to members of the DUDE.

The IBM Device-Driver Source Kit (DDK) for OS/2 has come a long way in its first year, from humble beginnings of about 30 drivers and a few tools to over 90 drivers, several test and maintenance tools, and documentation both online and available in print to assist in your device-driver development. The DDK team is proud of its achievement, having received favorable feedback from you, but we are not yet satisfied, and you can count on us to deliver more quality and useful information in the coming year.

The DDK is just one piece in the set of IBM's Personal Operating System software development tools. The tools team is implementing a strategy that will, over time, create a comprehensive and cohesive development suite.

DDK CD Features Developer Connection News

Later this year, The Developer Connection News (part of The Developer Connection for OS/2 subscription service) will accompany future releases of the DDK CD. Although the DDK includes a great deal of technical data about device-driver development, the newsletter will introduce and enhance development techniques and information about other parts of OS/2 and future operating systems, as well as serve as a quick reference to timely and important information like workshops, conferences, and other developer programs. This new DDK element will fortify our commitment to communicating with and assisting the development community. Suggestions for future articles are welcome.

DDK CD Usability Improvements

As our development products mature, we recognize opportunities for usability improvements to the rapid increase of data contained on our CDs. As more developers take advantage of the multiple tool offerings, we realize that a standard user interface is necessary. We have used the survey results from the San Jose Device-Driver Conference (held during July 1993) and other customer feedback to better address your development needs.

The installation, search engine, online assistance, and other product utilities will be enhanced with the customer in mind. For example, more emphasis will be given to utilizing the CD, like the feature offered in the last DDK release of opening books from the CD rather than installing them on your hard drive.

As these enhancements are implemented, the DDK team will continue to deliver quality releases. We will continue to expand our coverage of driver sources, aggressively seek new tools and test suites, and complement it all with technical documentation and support.

The DDK team strives to meet your expectations, and we encourage your suggestions to help us attain complete customer satisfaction. We value your input, and request a small investment of your time so that we can better serve your device-driver development efforts. Suggestions can be made through the DUDE, or you can write to:

Tony Arcuri
Internal Zip 1436
IBM Corporation
1000 N.W. 51 Street
Boca Raton FL 33431 USA

Device-Driver Source Kit (DDK) Documentation Enhancements

This material is adapted from the January 1994 issue of DDK Update, a hardcopy publication sent to members of the DUDE.

Thanks to participants in the documentation survey at the San Jose Device-Driver Conference, we have come up with several documentation enhancements for the IBM Device-Driver Source Kit (DDK) for OS/2.

Better Mix of Hardcopy and Online Information

You told us that you like both hardcopy and online documentation. You want the topics to be more complete and easy to find. You wanted more hypertext. And you want more tools and sample code.

Improved Organization

For the next DDK, we are restructuring many of the books in the library to make information easier to find. We will have new versions of the Physical Device Driver Reference and the Presentation Driver Reference. Many chapters of the Physical Device Driver Reference have been moved to other books in the library. For example, the chapter on the physical keyboard device driver will be transferred to the Input/Output Device Driver Reference. The Physical Device Driver Reference will contain general reference material that applies to physical device drivers.

Driver-specific information can be found in the following books:

- Printer Device Driver Reference
- Display Device Driver Reference
- Storage Device Driver Reference
- Input/Output Device Driver Reference
- Pen/PM Device Driver Reference
- MMPM/2 Device Driver Reference

Better Retrieval of Information

To make the information in the Presentation Driver Reference more usable, the book will be organized alphabetically. Graphics will be added to each API to identify which kind of device (for example, display or printer) the API is used for. For each release, we will continue to develop and enhance the index of each book.

The printer book is being rewritten to include the minidriver and font test tool. In addition, the information is being enhanced to include “roadmaps” of the device-driver file structures.

To enhance the retrievability of the information, the glossaries from the various books in the library have been consolidated. Terms have been added and definitions have been revised to be concise and meaningful. All books will have a comprehensive, common glossary.

More Tools and Sample Code

To expand the device-driver base, the following information will be added:

- PCMCIA enhancements
- Parallel-port sharing
- ADDE tool enhancements
- APM enhancements
- DevHlps in C and Assembler
- DBCS support for printers, displays, keyboards

More Hypertext Capability

The DDK information is available in both hardcopy and online forms. The online version is available on the DDK CD-ROM, which is updated quarterly. You can also purchase any of the hardcopy books in the DDK library separately. We have modeled the design of the online books to follow the information provided in the OS/2 Technical Library.

For the second DDK, we incorporated the Physical Device Driver Reference, the Virtual Device Driver Reference, and the Presentation Driver Reference into the product. In addition, technical changes were made to reflect the features of the OS/2 2.1 operating system.

For the third DDK, we made extensive changes to the format of the online books. They now have the multiple viewport windowing that is featured in the OS/2 Technical Library. We will continue to enhance the online design for the entire DDK Library.

Ordering the Libraries

Here is a list of all the device-driver books available in the IBM Device Driver Source Kit (DDK) for OS/2 Library and the OS/2 Toolkit Technical Library. You can order printed versions of each book separately, or the OS/2 Toolkit Technical Library as a package, by calling 1-800-633-8266.

Books in the OS/2 Toolkit Technical Library (orderable as a package by using order number SBOF-1206):

- Programming Guide, Volume I (S10G-6261)
- Programming Guide, Volume II (S10G-6494)
- Programming Guide, Volume III (S10G-6495)
- Application Design Guide (S10G-6260)
- Procedures Language 2/REXX Reference (S10G-6268)
- Procedures Language 2/REXX User's Guide (S10G-6269)
- Control Program Programming Reference (S10G-6263)[8]

[8] Also available online.

System Object Model Reference (S10G-6309)[8]

Information Presentation Facility Guide and Reference (S10G-6262)[8]

Presentation Manager Programming Reference, Volume I (S10G-6264)[8]

Presentation Manager Programming Reference, Volume II (S10G-6265)[8]

Presentation Manager Programming Reference, Volume III(S10G-6266)[8]

Books in the IBM Device-Driver Source Kit (DDK) for OS/2 Library:

Printer Device Driver Reference (S71G-1895)

Display Device Driver Reference (S71G-1896)

Storage Device Driver Reference (S76G-1897)

Input/Output Device Driver Reference (S71G-1898)

Pen/PM Device Driver Reference (S71G-1899)

MMPM/2 Device Driver Reference (S71G-3678)

The DDK CD-ROM is orderable as S71G-3703.

Books in both the OS/2 Toolkit Technical Library and the Device-Driver Source Kit (DDK) for OS/2 Library:

Physical Device Driver Reference (S10G-6266)

Virtual Device Driver Reference (S10G-6310)

Presentation Driver Reference (S10G-6267)

Correction to PSP Technical Interchange Information Published in January DSNEWS

The following corrects the information about the products distributed to attendees at the upcoming PSP Technical Interchange plus Device-Driver Conference in San Francisco from 25 through 29 April:

Lots of Far-Out Stuff ... For You!

Each attendee receives a bag filled with far-out stuff. Here's a look at what you'll take home:

IBM's Communications Manager/2 for OS/2 on CD-ROM

IBM's Database Manager/2

The IBM Device Driver Source Kit

OR

The Developer Connection, Volume 3, which includes:

- The Developer's Manager/2 Toolkit
- Multimedia Presentation Manager/2 Toolkit
- Pen for OS/2 Toolkit

Lotus SmartSuite for OS/2, which includes:

- Lotus 1-2-3
- Freelance Graphics
- Ami Pro
- cc:Mail

CA-REALIZER

One-year subscription to OS/2 Developer Magazine

And, take part in daily product raffles — you could win an IBM ThinkPad!

Reminder: Early Registration Discount Technical Interchange Expires 21 March!

If you haven't yet registered to attend the IBM PSP Technical Interchange Plus Device-Driver Conference, and if you want to save 100 US$ of the registration fee, be sure to register and remit payment no later than 21 March!

The early registration fees are 795 US$ (full conference registration), and 695 US$ for each of three or more attendees from the same company submitted at the same time and including full payment.

Registration fees beginning 22 March are 100 US$ higher: 895 US$ for an individual, and 795 US$ for each of three or more attendees from the same company.

To register, or for more information, call 1-800-872-7109 within the USA and Canada, or 1-508-443-4990 from elsewhere. For faster processing, fax your registration to 1-508-443-4715. Registration fees are payable in U.S. funds by a check drawn on a U.S. bank, or by credit card: American Express, Diners Club, MasterCard, or VISA. If payment is not received before or on 21 March 1994, the registration fee automatically increases.

IBM PSP Technical Interchange Agenda

Here is the agenda, as of 10 March 1994, for the OS/2 and LAN Systems Technical Interchange Plus Device-Driver Conference to be held in San Francisco from 25 through 29 April 1994.

The following topics, which were initially listed in the brochure, have been either merged with other topics or eliminated:

AD07	The OS/2 Debug Kernel
CM15	Open Distributed Systems with Messaging and Queueing
CS03	Network ... Security and Single Sign-On
LS09	Workplace OS Networking Transports
LS11	LAN Server WAN Connectivity
LS12	OS/2 LAN Server, Novell, Banyan, and TCP/IP Coexistence
LS16	NetWare Server for OS/2
OS05	OS/2 Base System Tuning
OS06	4 Meg OS/2: How and What?
WP05	Workplace OS Networking Transports
XF01	The Gorilla and Unattended Automated Testing

The following topics have been added:

AD11	Understanding and Exploiting the OS/2 Graphical Programming Interface (GPI)
CS13	DCE for OS/2 Base Performance
CS14	DCE for OS/2 Application Performance
CS18	Open Distributed Systems with Messaging and Queueing
CS19	CICS OS/2: 32-Bit Client/Server Computing
DM03	Enabling Your Application for Remote Unattended Installation
DM04	LAN NetView Monitor
DM05	LAN NetView Monitor – Hands-On
IP01	ImagePlus/2 Overview
IP02	ImagePlus/2 Tips, Techniques, Trends, and Directions
OS03	The Future of OS/2: An Independent View
OS06	OS/2 Performance Enhancements

The following titles have changed:

OS02	Future of OS/2 is now OS/2 Trends and Directions
OS09	OS/2 Hints and Tricks is now OS/2 Hints, Tricks, and tuning

Monday 25 April

12:00 n	–	7:00 pm	Registration
7:00 pm	–	10:00 pm	“Flower Power” reception

Tuesday 26 April

6:00 am	–	7:00 pm	Registration
7:00 am	–	8:00 am	Busing from hotel to Moscone Center
8:00 am	–	11:00 am	General Session at Moscone Center
11:30 am	–	12:30 pm	Luncheon at Moscone Center
12:30 pm	–	1:30 pm	Busing from Moscone Center to hotel
1:30 pm	–	2:45 pm	
AD02[9]		AD01[10]	User-Centric OS/2 Application Design
CA01			Product Manager Desktop Applications
CC01			IBM C Set++ Overview
CM01			Communications Manager/2: The Power of Personal Networking
CM10		CS01	Introduction to APPC and APPN
OP01		CS07	Distributed Computing Vision
LO01			Lotus SmartSuite for OS/2
LS01			LAN Server Overview
MM03		MM01	OS/2 Multimedia Support – MMPM/2
OO03		OO01	Object Technology Overview
OS02		OS01	OS/2 Trends and Directions
DD01			Overview and Future Directions – Display Device Drivers
DD16			Overview and Future Directions – LAN Device Drivers
DD34			Overview and Future Directions – Multimedia/Input Device Drivers
DD49			Overview and Future Directions – Printer Device Drivers
DD60			Overview and Future Directions – Storage Device Drivers
2:45 pm	–	3:00 pm	Break
3:00 pm	–	4:15 pm	
AD01		AD02	Designing OS/2 Applications
CA02			Product Planner Systems Strategies – Part 1
CC02			IBM C Set++ Debugging Tips and Techniques
CM02			Communications Manager/2 Installation and Configuration Basics
CM11		CS02	What's New in APPC and APPN
OP02		CS08	Distributed Applications
LO02			Application Development and Integration Using Ami Pro Macro Language
LS02			LAN Server Directions
MM06		MM02	OS/2 2.1 Multimedia – MMPM/2 Applications and Architecture
OO04		OO02	The In-Taligent Use of Objects
OS04		OS05	OS/2 Windows Support, Inside and Out
DD02			Presentation Driver Architecture – Printer and Display
DD17			Introduction to IBM's NDIS-Based Products
DD35			MMPM/2 Audio Subsystems
DD61			Storage Architecture
4:15 pm	–	4:30 pm	Break
4:30 pm	–	5:45 pm	
AD03			OS/2: The Platform for Quality Software Development
CA03			Product Planner Systems Strategies – Part 2
CC03			Performance Tuning with EXTRA from C Set++
CM03			Communications Manager/2 Complex Configuration

[9] Original Session Number

[10] Revised Session Number

New		CS19	CICS OS/2: 32-Bit Client/Server Computing
LO03			Application Development Using REXX for Ami Pro and Lotus 1-2-3
LS13		LS09	LAN Automated Distribution/2
MM04		MM03	OS/2 Software Motion Video
0002		0003	How to Introduce Objects to Your Organization
OS03		OS04	Platform Wars
OS06			OS/2 Performance Enhancements
DD03			PM Display Drivers – Part 1
DD18			Introduction to NDIS 2.01 Specification
DD36			MMPM/2 Audio Device Drivers
DD50			Printer Driver Architecture and Structure
DD62			Dynamic Loading of Device Drivers
6:00 pm	–	8:00 pm	“Streets of San Francisco” Exhibit Hall reception
8:00 pm	–	9:15 pm	
AD03			OS/2: The Platform for Quality Software Development
AD04			How to Create Endian-Neutral Software for Portability
AD13		AD09	OS/2 and Internationalization of Applications
CS02		CS06	Using NS/DOS in a Client/Server Environment
New		CS18	Open Distributed Systems with Messaging and Queueing
New		CS19	CICS OS/2: 32-Bit Client/Server Computing
TS01			IBM Personal Systems Services and Support
TS02			Technical Coordinator Program
TS04		TS03	Navigating OS/2 Support
TS05		TS04	Developer Assistance Program
New		WP05	Workplace OS Networking Transports

Wednesday 27 April

7:00 am	–	6:00 pm	Registration
7:00 am	–	8:00 am	Continental Breakfast
8:00 am	–	9:15 am	
AD02		AD01	User-Centric OS/2 Application Design
CA04			Systems Engineering and Project Management
CC04			IBM C Set++ Class Libraries
CM01			Communications Manager/2: The Power of Personal Networking
OP01		CS07	Distributed Computing Vision
LO04			Lotus OS/2 Development Directions
LS01			LAN Server Overview
MM01		MM04	Multimedia Creation and Management
AD05		OO04	OpenDoc for OS/2 – Compound Document Architecture
OS02		OS01	OS/2 Trends and Directions
WP01			Introduction to Workplace OS
DD04			PM Display Drivers – Part 2
DD19			IBM/NetWare/Banyan/TCPIP/Communications Manager Coexistence Issues – Part 1
DD37			Audio Device Driver Debugging
DD51			Printer Device Specification Exploitation
DD63			OS/2 Plug-and-Play Support
9:15 am	–	5:15 pm	Exhibit Hall open
9:15 am	–	9:45 am	Break in Exhibit Hall
9:45 am	–	11:00 am	
AD01		AD02	Designing OS/2 Applications

CA01			Product Manager Desktop Applications
CC05			IBM C Set++ WorkFrame/2 2.1
CM02			Communications Manager/2 Installation and Configuration Basics
OP02		CS08	Distributed Applications
LO05			Migrating Host Office Systems to LAN
LS02			LAN Server Directions
MM02		MM05	LAN Server Ultimedia
OO01		OO05	REXX Object-Oriented Extensions
OS01		OS02	OS/2 and Windows
WP02			What is the Workplace OS/2 Personality?
DD05			Base Video Handler and Virtual Device Drivers – Part I
DD20			IBM/NetWare/Banyan/TCPIP/Communications Manager Coexistence Issues – Part 2
DD38			MIDI and DSP Device Drivers
DD52			Printer Driver Installation Considerations
DD64			OS/2 ADD Driver Implementation
11:00 am	–	11:15 am	Break
11:15 am	–	12:30 pm	
AD04			How to Create Endian-Neutral Software for Portability
CA02			Product Planner Systems Strategies – Part 1
CC06			IBM C Set++ Optimization Tips and Techniques
CM03			Communications Manager/2 Complex Configuration
OP03		CS09	Introduction to Distributed Computing Environment (DCE)
LO06			Lotus Mail and Messaging Architecture
LS03			LAN Server Tips and Techniques – Part 1
MM03		MM01	OS/2 Multimedia Support – MMPM/2
OO03		OO01	Object Technology Overview
New		OS03	The Future of OS/2: An Independent View
WP03			Tools and Development Environment for Workplace OS
DD06			Base Video Handler and Virtual Device Drivers – Part 2
DD21			Introduction to a Sample Network Driver
DD39			MMPM/2, DOS, and Win-OS/2 Audio Device Sharing – Part 1
DD65			ASPI and Virtual ASPI Support in OS/2
12:30 pm	–	2:00 pm	Luncheon
2:00 pm	–	3:15 pm	
AD14		AD10	The Integrated Desktop to the Workplace Shell
CA03			Product Planner Systems Strategies – Part 2
CC01			IBM C Set++ Overview
OP04		CS10	Introduction to DCE Programming
LO07			Developing with the Lotus VIM Developer's Toolkit
LS04			LAN Server Tips and Techniques – Part 2
LS16		LS12	NetWare Server for OS/2
MM06		MM02	OS/2 2.1 Multimedia – MMPM/2 Applications and Architecture
0004		OO02	The In-Taligent Use of Objects
OS04		OS05	OS/2 Windows Support, Inside and Out
WP04			Workplace OS Human Centrics and How They Fit with the PowerPC
DD07			Win Drivers and Seamless Architecture
DD22			Sample Network Driver Code Walkthrough – Part 1
DD40			MMPM/2, DOS, and Win-OS/2 Audio Device Sharing – Part 2
DD66			OS/2 Tape Support
3:15 pm	–	3:45 pm	Break in Exhibit Hall
3:45 pm	–	5:00 pm	
CA04			Systems Engineering and Project Management
CC02			IBM C Set++ Debugging Tips and Techniques

OP05		CS11	Introduction to DCE Administration
LO08			Lotus Notes Application Development – Part 1
LS06			OS/2 LAN Server Performance Tuning
LS15		LS11	LAN Server Hands-On Workshop – Connecting to Resources
LS17		LS13	NetWare Interoperability
MM04		MM03	OS/2 Software Motion Video
0002		OO03	How to Introduce Objects to Your Organization
New		OS06	OS/2 Performance Enhancements
AD15		OS11	Using and Customizing the Workplace Shell
WP01			Introduction to Workplace OS
DD08			Video Accelerator Support in the Display Drivers
DD23			Sample Network Driver Code Walkthrough – Part 2
DD41			MMPM/2 CoDec Interface
DD53			Bidirectional Printing Support
DD67			Advanced Power Management
5:00 pm	–	5:15 pm	Break
5:15 pm	–	6:30 pm	
AD05		AD04	OpenDoc for OS/2 – Compound Document Architecture
New		AD11	Understanding and Exploiting the OS/2 Graphical Programming Interface (GPI)
CC03			Performance Tuning with EXTRA from C Set++
OP06		CS12	Choosing DCE as Your Client/Server Program Environment
DM02		DM01	IBM LAN NetView Strategy
LO09			Lotus Notes Application Development – Part 2
LS05			LAN Server Security
LS14		LS10	LAN Server Hands-On Workshop – LAN Server Administration
LS07		LS14	IBM LAN Systems Communication Transports
MM01		MM04	Multimedia Creation and Management
OS07			OS/2 REXX Tutorial
WP02			What is the Workplace OS/2 Personality?
8:00 pm	–	9:15 pm	
AD08		AD06	The Hang/Trap Enigma
AD13		AD09	OS/2 and Internationalization of Applications
AD16		AD12	Overview of The Developer Connection for OS/2
New		CS18	Open Distributed Systems with Messaging and Queueing
New		DM04	LAN NetView Monitor
New		IP01	ImagePlus/2 Overview
LS13		LS09	LAN Automated Distribution/2
TS01			IBM Personal Systems Services and Support
TS04		TS03	Navigating OS/2 Support
TS05		TS04	Developer Assistance Program
New		WP05	Workplace OS Networking Transports
DD24			Network Device Driver Performance
DD42			MMPM/2 Video Capture Subsystem
DD68			Parallel Port Device Support

Thursday 28 April

7:00 am	–	6:00 pm	Registration
7:00 am	–	8:00 am	Continental Breakfast
8:00 am	–	9:15 am	
AD14		AD10	The Integrated Desktop Program to the Workplace Shell
New		AD11	Understanding and Exploiting the OS/2 Graphical Programming Interface (GPI)
CC04			IBM C Set++ Class Libraries
CM05		CM04	Communications Manager/2 – Building SNA Applications
CM13		CS03	APPN and TCP/IP: a Comparison of Protocols
New		CS13	DCE for OS/2 Application Performance
New		DM05	LAN NetView Monitor Hands-On
LO10			Lotus Notes/DBMS Integration
LS10		LS08	LAN Server Interoperability
LS16		LS12	NetWare Server for OS/2
MM02		MM05	LAN Server Ultimedia
OO01		OO05	REXX Object-Oriented Extensions
DD09			Testing – Display Device Drivers
DD25			Configuration in an IBM NDIS Environment
DD43			MMPM/2 Video Capture DD
DD54			What's New in Graphics Engine 2.2
DD69			OS/2 PCMCIA Support – Part 1
9:15 am	–	5:15 pm	Exhibit Hall open
9:15 am	–	9:45 am	Break in Exhibit Hall
9:45 am	–	11:00 am	
AD06		AD05	32-Bit Native Porting Tips and Techniques
AD16		AD12	Overview of The Developer Connection for OS/2
CC05			IBM C Set++ WorkFrame/2 2.1
CM06		CM05	Avoiding Common Problems and Problem Determination with Communication Manager/2
OP03		CS09	Introduction to Distributed Computing Environment (DCE)
New		CS14	DCE for OS/2 Application Performance
LS03			LAN Server Tips and Techniques – Part 1
LS17		LS13	NetWare Interoperability
PN01		MM06	Pen for OS/2
OS01		OS02	OS/2 and Windows
AD15		OS11	Using and Customizing the Workplace Shell
PM01			Positioning
DD10			Performance – Display Device Drivers
DD26			Remote LAN Access Network Drivers – Part 1
DD44			MMPM/2 Device Driver Testing
DD55			New OMNI Printer Driver Architecture – Part 1
DD70			OS/2 PCMCIA Support – Part 2
11:00 am	–	11:15 am	Break
11:15 am	–	12:30 pm	
AD08		AD06	The Hang/Trap Enigma
CC06			IBM C Set++ Optimization Tips and Techniques
CM12		CM06	Multiprotocol Transport Network and AnyNet
OP04		CS10	Introduction to DCE Programming
New		DM05	LAN NetView Monitor Hands-On
New		IP01	ImagePlus/2 Overview
LS04			LAN Server Tips and Techniques – Part 2

LS07		LS14	IBM LAN Systems Communication Transports
PM02			Channel Distribution in the U.S.
PN02		MM07	PenDOS
New		OS03	The Future of OS/2: An Independent View
WP03			Tools and Development for Workplace OS
DD11			Installation/Debug – Display Device Drivers
DD27			Remote LAN Access Network Drivers – Part 2
DD45			OS/2 Mouse and Keyboard Device Drivers
DD56			New OMNI Printer Driver Architecture – Part 2
DD71			OS/2 Installable File System
12:30 pm	–	2:00 pm	Luncheon
2:00 pm	–	3:15 pm	
AD09		AD07	Adding Help to Your OS/2 Applications
CM04		CS04	SNA Client/Server in the Communications Environment
CM07		CS15	Introduction to TCP/IP Networking
DB01			DB2/2: Let's Get Small
DM02		DM01	IBM LAN NetView Strategy
New		IP02	ImagePlus/2 Tips, Techniques, Trends, and Directions
LS15		LS11	LAN Server Hands-On Workshop – Connecting to Resources
PN03		MM08	Pen for OS/2, PenDOS, and Speech
OP05			Introuction to DCE Administration
OS07			OS/2 REXX Tutorial
PM03			Packaging
WP04			Workplace OS Human Centrics and How They Fit with the PowerPC
DD13			Centralized Video Services
DD28			IBM Protocol Stacks in Detail
DD46			An Overview of Pen for OS/2 Device Drivers
DD57			The OS/2 Debug Kernel
DD72			Layered Serial Support in OS/2
3:15 pm	–	3:45 pm	Break in Exhibit Hall
3:45 pm	–	5:00 pm	
AD11		AD08	Mail-Enabling Applications Using VIM
CS01		CS05	Programming CPI-C Applications with Communications Manager/2
New		CS13	DCE for OS/2 Base Performance
CM08		CS16	Sockets Programming with TCP/IP for OS/2
DB02			DB2/2: Family and Friends
LS06			OS/2 LAN Server Performance Tuning
LS14		LS10	LAN Server Hands-On Workshop – LAN Server Administration
PN01		MM06	Pen for OS/2
OS03		OS04	Platform Wars
OS09			OS/2 Hints, Tricks, and Tuning
PM04			Collaterals
New		WP05	Workplace OS Networking Transports
DD12			Q&A Session – Display Device Drivers
DD29			Implementing NDIS Protocol Stacks
DD47			Writing PenDOS Device Drivers
DD58			Debugging PM Printer Presentation Drivers
DD73			PDD and VDD Organization
5:00 pm	–	5:15 pm	Break
5:15 pm	–	6:30 pm	
AD09			OS/2 and Internationalization of Applications
CS02		CS06	Using NS/DOS in a Client/Server Environment
New		CS14	DCE for OS/2 Application Performance
CM09		CS17	Remote Procedure Call Programming with TCP/IP for OS/2

OP06		CS12	Choosing DCE as Your Client/Server Programming Environment
DB03			Data Access Services
DM03		DM02	IBM LAN NetView Family Overview
DM01		DM06	IBM LAN NetView Management Utilities for OS/2
PN02		MM07	PenDOS
OS08			OS/2 Symmetric Multiprocessing
TS06		OS12	The OS/2 Problem Solver
PM05			Public Relations and Product Reviews
DD30			Certification, Testing, and Debugging of Network Drivers
DD59			OS/2 Graphical Programming Interface (GPI) Programming
DD74			Techniques for Factory-Floor Automation and Data Acquisition
6:30 pm	–	7:30 pm	Busing from hotel to the Exploratorium
7:30 pm	–	10:30 pm	“Back to the Future” Party at the Exploratorium

Friday 29 April

7:00 am	–	3:30 pm	Registration
7:00 am	–	8:00 am	Continental Breakfast
8:00 am	–	9:15 am	
AD09		AD07	Adding Help to Your OS/2 Applications
CM05		CM04	Communicaitons Manager/2 – Building SNA Applications
CM10		CS01	Introduction to APPC and APPN
CM13		CS03	APPN and TCP/IP: A Comparison of Protocols
CM07		CS15	Introduction to TCP/IP Networking
DB01			DB2/2: Let's Get Small
New		DM03	Enabling Your Application for Remote Unattended Installation
New		DM04	LAN NetView Monitor
PN03		MM08	Pen for OS/2, PenDOS, and Speech
OS09			OS/2 Hints, Tricks, and Tuning
PM06			Meet the Editors
DD31			Network Driver Customer Experience
DD48			Workplace OS Multimedia Device Drivers
DD75			Workplace OS Device Driver Model
9:15 am	–	2:30 pm	Exhibit Hall open
9:15 am	–	9:45 am	Break in Exhibit Hall
9:45 am	–	11:00 am	
AD11		AD08	Mail-Enabling Applications Using VIM
CM06		CM05	Avoiding Common Problems and Problem Determination with Communications Manager/2
CM14		CM07	Problem Diagnosis Using Communications Manager/2 APPC Trace Capability
CM11		CS02	What's New in APPC and APPN
CM08		CS16	Sockets Programming with TCP/IP for OS/2
DB02			DB2/2: Family and Friends
DM03		DM02	IBM LAN NetView Family Overview
LS10		LS08	LAN Server Interoperability
AD12		OS10	Alternate Shells for OS/2
TS06		OS12	The OS/2 Problem Solver
PM07			Direct Marketing
New		DM05	LAN NetView Monitor Hands-On
DD14			New GRAD Display Driver Architecture – Part 1
DD32			Workplace OS LAN Network Drivers – Part 1

DD76			Base Workplace OS Device Drivers
11:00 am	–	11:15 am	Break
11:15 am	–	12:30 pm	
AD06		AD05	32-Bit Native Porting Tools and Techniques
CM12		CM06	Multiprotocol Transport Network and AnyNet
CM04		CS04	SNA Client/Server in Communication Environments
CS01		CS05	Programming CPI-C Applications with Communications Manager/2
CM09		CS17	Remote Procedure Call Program with TCP/IP for OS/2
DB03			Data Access Services
New		DM03	Enabling Your Application for Remote Unattended Installation
DM01		DM06	IBM LAN NetView Management Utilities for OS/2
LS08		LS07	LAN Distance – Remote LAN Access
OS08			OS/2 Symmetric Multiprocessing
PM08			Product Marketing for Software Developers
DD15			New GRAD Display Driver Architecture – Part 2
DD33			Workplace OS LAN Network Drivers – Part 2
12:30 pm	–	2:00 pm	Luncheon
2:00 pm	–	2:30 pm	Exhibitor Raffles in Exhibit Hall
2:30 pm	–	3:30 pm	Closing Session

New TalkLink Service

TalkLink – new and improved! An enhanced version of IBM's TalkLink service is now available. NEWTalkLink is accessible from the MartLink main menu. A new preview area is also available to all IBMLink users (to get more information regarding this service and to order it on-line).

Migrating to New TalkLink

Existing users of our “old” TalkLink and authorized users of OS2BBS (a subset of TalkLink) will see new menu items on their MartLink main menu. These new menu items provide access to the new service. We highly encourage existing users to utilize the new service. The “old” TalkLink environment, and the “old” OS2BBS subset will be discontinued shortly after being maintained as a backup for a limited period of time.

TalkLink Highlights

TalkLink provides the following capabilities for customers to review information electronically, submit questions/requests and receive answers/information:

Conferences and forums — question-and-answer bulletin boards for you to ask questions and help others with a wide variety of products and services. Items posted on this bulletin board are shared among BBS users, IBM personnel, and affiliates worldwide.

Customer-to-customer messaging — customers can send private messages to each other.

Support — customers can submit or view problem reports. These entries will be responded to by the conference/forum owner, normally within a certain time period. Users can also place orders for product-related materials.

Software library — download application programs and upload contributions.

News and announcements — contains recent information regarding products and services.

Modes of operation:

- Interactive — Users are connected online to TalkLink while using its facilities.
- Batch — Users can download the forums to their personal computers and read the entries offline. Users can also respond offline, and the entries will be saved and sent to the host the next time the user is connected in batch mode. Initially, this facility is available for OS/2 users only.

Search IBM databases via interactive mode — This search facility includes a large question and answer database of items, IBM System Center Flashes, and IBM's problem management libraries. This database contains information about problems and fixes. Not all general-discussion forums have related information in these databases.

IBM APL2/2 Version 1.0

APL2 is a high-productivity, general-purpose programming language useful to application developers and interactive end-users. This language provides an extensive collection of functions that can be quickly combined to solve many business problems. APL2 is used in a wide set of application areas such as commercial data processing, system design and prototyping, engineering and scientific computation, artificial intelligence, and education.

IBM APL2 for OS/2 (APL2/2) Version 1.0 provides a productive environment for developing and executing applications in the OS/2 environment. APL2/2 is designed to be compatible with:

APL2 (5688-228 and 5688-229) Version 2 Release 2, for the IBM host mainframe processors

APL2/6000 (5765-012) Version 1 Release 2, for the RISC System/6000 family of processors

APL2 for Sun Solaris (5648-065) Version 1 Release 1, for Sun SPARCstation systems

Packaging Options

Two packaging options are available in the APL2/2 family:

APL2/2 Entry for personal and educational use

APL2/2 Advanced for professional application development and cooperative processing

APL2/2 Advanced provides everything in the Entry package, plus extended cross-system compatibility and cooperative processing with other IBM APL2 platform products. Cooperative processing is now available across TCP/IP-connected APL2 systems running on VM, MVS, AIX/6000™, OS/2, and Sun Solaris. The Advanced package also includes interfaces to the DB2/2™ database system and the TCP/IP Socket Interface (AP119), which provides the capability to communicate with non-APL2 programs and facilities.

The Entry and Advanced packages are fast and easy to install, using diskettes, hard disk, or an established LAN drive.

In Brief...

APL2/2 Entry and APL2/2 Advanced provide:

Exploitation of the 32-bit OS/2 2.0 operating system

Portability between IBM APL2 on MVS, VM, AIX/6000, Solaris, and DOS

Inter-language communication facilities for calling programs and subroutines written in other languages

Fully asynchronous shared-variable processors with dynamic processor loading and support for auxiliary processors written in APL2 or C

CUA™-compliant session manager with full windowing features

Set of auxiliary processors for interface to the following system facilities: system commands, input stack management, full-screen management, universal graphics management, system file I/O, APL2 object library, and OS/2 Presentation Manager services

APL2/2 Advanced provides the following additional features:

Interfaces to the DB2/2 database system

TCP/IP socket interface

Cooperative processing across a TCP/IP network, providing the capability to:

- Share variables with MVS, VM, AIX/6000, OS/2, and Solaris
- Share variables with remote auxiliary processors for access to graphical user interface (GUI), database, and other system services
- Run a session manager communicating with an APL2 interpreter on a remote platform
- Distribute parts of an application across multiple machines
- Build a network server

IBM APL2 Offering on OS/2

Users can exploit the benefits of workstation development, such as higher productivity, lower cost, and isolated test environment. Programmers can enhance productivity and program reliability using APL2 for the OS/2 environment.

APL2 is designed to enhance a customer's productivity through a choice of platforms and extensive system integration.

Users who write applications for multiple platforms will find APL2 for OS/2 compatible with other IBM APL2 platforms, reducing the need for application-specific code.

The APL2 Environment

APL2 provides an environment for:

Analyzing ad-hoc data and solving problems, especially when dealing with incomplete data or ill-defined problems

Developing interactive programs by, or working closely with, end users

Building portable applications that need to run on many kinds of systems

Building advanced decision-support systems

Researching and designing new models and decision technologies

Teaching the computational aspects of applied mathematics

APL2 brings the tools for these tasks together in a single environment by combining:

Rich data structures, more general and flexible than those provided by most programming languages

Large set of primitives (built-in functions) that apply to broad classes of data types

Simple syntax that treats user-defined programs like language primitives

Support for complex arithmetic

Interactive environment that permits the user to concentrate on a problem without needing to compile or link-edit

Capability to be productive knowing only a small subset of the language

APL2 Benefits

APL2 provides the following benefits:

Allows users to solve problems without compiling or link-editing programs

Enables fast and powerful computing through problem-solving operations, array manipulation, and immediate execution

Reduces coding, builds on its existing applications, and provides several debugging aids

Automatically uses special hardware such as math coprocessors. The auxiliary processors and associated processors provide access to system services outside APL2. The associated processors also provide access to routines written in other programming languages such as FORTRAN, Assembler, C, or PL/I.

Provides an iterative system design to aid developers in creating applications that fit their needs

Offers an integrated object library manager on all platforms, implemented using Auxiliary Processor 211. AP 211 stores any APL array as a component of the file, freeing the user from the details of how or where the data is actually stored. Objects of any size and data type can be easily stored and retrieved by name, using a simple set of commands. Automatic data conversion is performed when accessing object libraries in a multiplatform network configuration.

Provides a variety of editors that can be used among the platforms. Editor 1 is a common editor among platforms that allows the user to manipulate lines in a function or operator definition. APL2 also provides windowed editors.

Cooperative Processing

Cooperative processing improves programming productivity, efficiency, and flexibility by allowing an application to:

Share a variable directly with an APL or non-APL application anywhere else on a network

Control a remote APL2 session from another APL or non-APL application

APL2 Uses

APL2 and its interactive environment provide benefits in areas such as:

Business and scientific applications. APL2 lets users store, select, and manipulate large amounts of data with concise, consistent, powerful operations. APL2 is also useful for statistical analysis and business reports.

Application design. APL2 helps developers and users define solutions to their problems. As programmers develop an application, user feedback can be incorporated quickly and easily, often in real time while the developer and user are discussing the issue. This provides a truly iterative design phase.

Models and simulation. APL2 lets professionals model business and scientific systems. Users can test hypotheses and easily change values for “what-if” studies.

Cross-System Compatibility

APL2/2 provides comprehensive cross-system compatibility with other APL2 platform products. The language is nearly identical on all platforms. Compatible shared-variable and external processor facilities are provided. Equivalent auxiliary processors exist wherever operating system facilities make this feasible.

Growth Enablement

APL2 is designed to support growth of the customer's business and enable fast response to customer business requirements.

The availability of APL2 products on new platforms and the extensive degree of cross-system communication and compatibility across the APL2 platform products, allow customer applications to grow in a very flexible manner. Applications can run on one platform or can be distributed across several platforms.

APL2 encourages developers to use application building blocks and common tools that can yield enormous productivity gains. With APL2, developers can design, code, and implement applications in a shorter period of time, and react more quickly to program changes.

The session manager helps users conduct and control APL2 sessions within the system it is running on or in sessions running on other systems, including computers with dissimilar hardware or operating systems. The session manager has similar features in all APL2 products, so using APL2 on different platforms is easier for the users.

Full Set of Auxiliary Processors

The auxiliary processors distributed with APL2 allow users to perform a number of functions, including:

- Accessing host services, databases, communication networks, and various file systems
- Providing graphics and text interaction with display devices.

Associated processors allow applications or users to treat routines, often written in other languages, as if the routines were APL functions within the active workspace.

A common set of auxiliary processors is available across all platforms to help increase development productivity and reduce the cost of code migration.

Business Solutions

APL2 provides the capability to rapidly develop business solutions, and the flexibility to create these solutions on one system or distributed systems. APL2 also has interfaces to other products and parts of the system that allow it to be used to connect data and programs from outside APL2.

APL2 is an excellent production tool. In addition to its normal interactive mode, APL2 allows production applications to be run in an automated environment without requiring user interaction. APL2 also provides a powerful environment with robust error detection and recovery capability. The flexibility of APL2 allows applications to call other languages and products, and allows the communication facilities to support distributed production environments using client/server protocols.

With APL2 symbol orientation, users do not need to know English to work with APL2 or create APL2 programs. APL2 also has no reserved words, enabling users to write programs in other national languages with no conflict. Additionally, system messages can be received in a variety of national languages. The IBM APL2 platform products each provide some support for double-byte character sets (DBCS).

Publications

The following publications are available from the System Library Subscription Service (SLSS). To order, call 1-800-879-2755 within the USA.

Title	Order Number
The APL2 Family of Products (fact sheet)	GH21-1090
APL2 Programming: Language Reference	SH21-1061
APL2 Reference Summary	SX26-3999
APL2 for OS/2: User's Guide	SH21-1091
APL2 at a Glance	SC26-4676
APL2 Keyboard Decals	SC33-0604

Hardware Requirements

The minimum required hardware for APL2/2 is:

A personal computer running OS/2 2.0, or higher; or OS/2 J2.1, or higher (Japanese version)

At least 6 MB of hard-disk space, in addition to that required by OS/2

At least 2 MB of memory, in addition to that required by OS/2

Programming Requirements

The minimum required software to run APL2/2 is:

OS/2 Version 2.0 (5621-077), or later; or OS/2 Version J2.1, or later (Japanese version)

Additional requirements for APL2/2 Advanced:

DB2/2 1.0 (5622-044), or later, for Auxiliary Processor 127. AP 127 allows you to use the structured query language (SQL) in DATABASE 2 (DB2).

TCP/IP 2.0 (5622-086), or later, for Auxiliary Processor 119. AP 119 is the socket-interface processor that is used to pass requests to TCP/IP. TCP/IP provides communication facilities across networks.

Charges

APL2/2 Version 1.0 Entry Package:

Part Number	Order Type	One-Time Charge
89G1556	Program Package	185 US$
89G1727	Additional License	167 US$
89G1573	Proof of Additional License Certificate	167 US$

APL2/2 Version 1.0 Advanced Package:

Part Number	Order Type	One-Time Charge
89G1697	Program Package	650 US$
89G1730	Additional License	585 US$
89G1695	Proof of Additional License Certificate	585 US$

Additional Licenses Charge: Customers who pay a one-time charge for additional licenses may copy machine-readable program materials and printed documentation previously acquired from IBM in a program package. One copy may be made for each additional license ordered.

CM/2 Version 1.1 Upgrade Promo – Hurry, Time's Running Out!

Don't miss this great opportunity for upgrading to the latest release of Communications Manager/2 at special promotion prices.

There are two promotions in place that expire on 31 March 1994.

Customers who currently have CM/2 Version 1.0 get a fantastic deal. By ordering one CM/2 1.0 to 1.1 upgrade shrinkwrap at 75 US$, they can upgrade existing CM/2 1.0 to 1.1 additional license upgrades at no charge. In other words, pay for one set of CM/2 1.0-to-1.1 upgrade media and publications, and upgrade your remaining CM/2 1.0 licenses at NO CHARGE. With an additional license, customers can make copies of all or portions of the CM/2 1.1 publications, or they can separately order handy publications like the User's Guide and still save a bundle.

The second promotion is for customers who have IBM and other 3270 or 5250 terminal emulator programs. This includes DOS, Windows, and OS/2 Extended Services and Extended Edition. It also includes emulators that customers may have acquired with their OS/400 PC Support program or their NetWare LAN. For these customers, we are offering a 35 percent discount on shrinkwrap upgrade packages, and a 50 percent discount off the list price on additional license upgrades. That's a promotion price of 125 US$ for each shrinkwrap and 75 US$ for each additional license.

The promotional prices are available through dealers, branch offices, 1-800-IBM-CALL (1-800-426-2255), and 1-800-3-IBM-OS2 (1-800-342-6672).

U.S. Developer Assistance Program Discount on IBM Printers

Commercial and Premier members of the IBM Developer Assistance Program in the United States are eligible to receive a 50-percent discount on selected IBM printers and features by ordering directly from Lexmark International, Inc. The printers must be used to develop, test and/or support your application's print drivers for the printers purchased.

How to Participate

U.S. Developer Assistance Program Commercial and Premier members receive a DAP Notebook when they join. In that notebook is a section titled “Forms and Agreements.” In that section, complete the Lexmark Developers Discount Agreement and the Product Schedule, and send these two forms and your company's purchase order to:

Printer Compatibility
Mailstop C12/035-3
Lexmark International, Inc.
740 New Circle Road
Lexington KY 40511

Whom to Contact with Questions

If you have any questions regarding the Developers Discount Program for IBM printers, please call 1-606-232-2260.

Disclaimer

All transactions and agreements for this offering are between you and Lexmark International, Inc. IBM makes no warranties, either expressed or implied, about this offering. This offering may be withdrawn, with or without cause, at any time.

Eligible Products

Products for which Commercial and Premier members of the IBM U.S. Developer Assistance Program members are eligible for discounts are listed below. The prices are effective as of November 1993. Contact Lexmark Printer Compatibility Operations at 1-606-232-2260 for current prices.

Eligible Printers	Part Number	Single Unit Price	Developer's Price
IBM 238 Plus	238 2	399. US$	199.5 US$
IBM 2381 Plus	2381 2	549.	274.5

IBM 239 Plus	239	1	429.	214.5
IBM 2391 Plus	2391	2	599.	299.5
IBM 4226 Model 3 2	42263 2		1799.	899.5
IBM 4 72 ExecJet	4 72	1	799.	399.5
IBM 4 76 ExecJet II	4 76	1	349.	174.5
IBM 4 79 ColorJet PS	4 79	1	3199.	1599.5
IBM 4 29 Model 2	4 29 2		1 99.	549.5
IBM 4 29 Model 3	4 29 3		1299.	649.5
IBM 4 37 5E	4 37 5E		799.	399.5
IBM 4 39 16L	4 3916L		3399.	1699.5
IBM 4 39 12L	4 3912L		2899.	1449.5
IBM 4 39 12R	4 3912R		1999.	999.5
IBM 4 39 1 R	4 391 R		1599.	799.5
IBM 4 39 1 R/Duplex	4 391 D		2199.	1 99.5

4 33 LAN Connection:

OS/2, AIX:				
Token-Ring	4 33	1	849.	424.5
E-Net 1 baseT	4 33	2	749.	374.5
E-Net 1 base2/1 base5	4 33	3	749.	374.5
NetWare:				
Token-Ring	4 33 11		699.	349.5
E-Net 1 baseT	4 33 12		549.	274.5
E-Net 1 base2/1 base5	4 33 13		549.	274.5

Maximum quantity = 2 each per product/model, 1 total per schedule

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Eligible Features

IBM 238 Plus/2381 Plus:

Auto Sheet Feed (238 +)	79F484	199.	99.5
Auto Sheet Feed (2381+)	79F4841	239.	119.5
Serial Interface Module	79F4758	125.	62.5
32K Receive Buffer	118 727	55.	27.5
Parallel Attach Cable	1 47 1	25.	12.5
Serial Cable - 2 -Foot (Requires part 79F4758)	85 9386	48.	24.

Maximum quantity = one each per Model 238 Plus or 2381 Plus ordered

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IBM 239 Plus/2391 Plus:

Font Set Download Diskette	118 724	35.	17.5
Auto Sheet Feed (239 +)	79F484	199.	99.5
Auto Sheet Feed (2391+)	79F4841	239.	119.5
Serial Interface Module	79F4758	125.	62.5
32K NV RAM	118 725	79.	39.5
32K Memory Option	118 727	55.	27.5

Parallel Attach Cable 1 47 1 25. 12.5
Serial Cable - 2 -Foot 85 9386 48. 24.
(Requires part 79F4758)

Maximum quantity = one each per Model 239 Plus or 2391 Plus ordered

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IBM 4226 Model 3 2:

Parallel Attach Cable 1 47 1 25. 12.5
Serial Cable - 2 -Foot 85 9386 48. 24.
(Requires part 1319143)
4226 Serial Attach Cable 6486685 58. 29.
(2 -Foot)
Serial Cable Adapter 1319143 39. 19.5

Maximum quantity = one each per IBM 4226 Model 3 2 ordered

IBM 4 7X Ink-Jet Printers:

Auto Sheetfeed, 2nd Bin(4 72) 12323 129. 64.5
Font Card (Presentations)(4 72) 1232329 99. 49.5
128K Download Memory(4 72) 1232331 259. 129.5
Font Card (OCR/Symbol)(4 72) 1232332 99. 49.5
Font Card (Wordprocessing)(4 72) 1232333 99. 49.5
Serial Interface Card(4 72) 1232334 119. 59.5
4MB Memory Module(4 79) 1328363 299. 149.5
8MB Memory Module(4 79) 1328365 499. 249.5
Y Cable(4 79) 1331655 39. 19.5
Parallel Attach Cable(4 7X) 1 47 1 25. 12.5
Serial Cable - 2 -Foot 85 9386 48. 24.
(4 72/4 76/4 79)
256 KB SRAM SIMM Memory(4 76) 1367139 99. 49.5
256 KB Flash Memory(4 76) 1325283 99. 49.5
1 MB Flash Memory(4 76) 1325285 199. 99.5
Serial Adapter(4 76) 136311 119. 59.5

Maximum quantity = one each per IBM 4 7X Ink-Jet printer ordered

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IBM 4 29 LaserPrinters:

Envelope Plus Feeder 1183151 349. 174.5
Letter - 2 -Sheet Paper Tray 118326 69. 34.5
Legal - 2 -Sheet Paper Tray 1183276 79. 39.5
1MB Memory Option 1183333 1 9. 54.5
2MB Memory Option 1183334 189. 94.5
4MB Memory Option 1183335 279. 139.5
Scalable Font Card (22 Fonts) 1183336 179. 89.5
Download Font (Fixed Pitch) 1 394 1 199. 99.5
Download Font (TR 36-6 pt) 1 394 2 199. 99.5
Download Font (TR 6-3 pt) 1 394 3 199. 99.5
Download Font (Helv 36-6 pt) 1 394 4 199. 99.5
Download Font (Helv 6-3 pt) 1 394 5 199. 99.5
Download Font (Old Eng, etc.) 1 394 6 199. 99.5
Download Font (Palatino) 1 394 7 199. 99.5
Download Font (Optima) 1 394 8 199. 99.5
Download Font (Goudy Old Sty) 1 394 9 199. 99.5

Download Font (Baskerville)	1 3941	199.	99.5
Download Font (Cent Schbook)	1 39411	199.	99.5
Download Font (Futura)	1 39412	199.	99.5
HP PCL 5 Option	1183339	129.	64.5
PostScript Option	118334	229.	114.5
Letter - 5 -Sheet 2nd Drawer	1183365	349.	174.5
Legal - 5 -Sheet 2nd Drawer	1183366	359.	179.5
Letter - 5 -Sheet Paper Tray	1183368	129.	64.5
Legal - 5 -Sheet Paper Tray	1183369	139.	69.5
A5 Paper Tray	1183376	1 9.	54.5
1 Sheet Auxiliary Feeder	1183966	229.	114.5
AppleTalk Option (Model 2)	132144	299.	149.5
AppleTalk Option (Model 3)	1321445	299.	149.5
Parallel Attach Cable	1 47 1	25.	12.5
Serial Cable - 2 -Foot (Requires part 1319143)	85 9386	48.	24.
4 29 Serial Attach Cable	6486685	58.	29.
Serial Cable Plug Adapter	1319143	39.	19.5

Maximum quantity = one each per IBM 4 29 LaserPrinter ordered

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IBM 4 37 5E:

1 MB Memory	1183333	1 9.	54.5
2 MB Memory	1183334	189.	94.5
4 MB Memory	1183335	279.	139.5
256 KB Flash Memory	1325283	99.	49.5
1 MB Flash Memory	1325285	199.99	99.5
23-Font Option	1325287	99.	49.5
Tray 2 Option (25 -Sheet)	136448	189.	94.5
15 -Sheet Letter Tray	1364481	49.99	24.5
15 -Sheet Legal Tray	1364482	59.	29.5
25 -Sheet Letter Tray	1364483	59.	29.5
25 -Sheet Legal Tray	1364484	69.	34.5
Serial Adapter	136311	119.	59.5
Serial Cable - 2 -Foot	85 9386	48.	24.
Parallel Attach Cable	1 47 1	25.	12.5

Maximum quantity = one each per IBM 4 37 5E ordered

IBM 4 39 LaserPrinters:

1MB Flash Memory Option	1328586	289.	144.5
2MB Flash Memory Option	1328585	469.	234.5
2MB Printer RAM Memory	1328589	199.	99.5
4MB Printer RAM Memory	1328363	299.	149.5
8MB Printer RAM Memory	1328365	499.	249.5
3 -Sheet Duplex (16L, 12L)	1326 7	699.	349.5
13 -Sheet Duplex (12R, 1 R)	1326 72	699.	349.5
3 -Sheet Extra Duplex Tray	132619	159.	79.5
13 -Sheet Extra Duplex Tray	1326191	149.	74.5
5 -Sheet 2nd Drawer (Ltr)	1195836	349.	174.5
5 -Sheet 2nd Drawer (Legal)	119583	359.	179.5
5 -Sheet Extra Tray (Ltr)	1195837	129.	64.5
5 -Sheet Extra Tray (Legal)	1195831	139.	69.5
Envelope + Feeder	1183151	349.	174.5
1 -Sheet Auxiliary Feeder	1183966	229.	114.5

2 -Sheet Extra Tray (Ltr)	118326	69.	34.5
2 -Sheet Extra Tray (Legal)	1183276	79.	39.5
1 BaseT Network Adapter	1325497	439.	219.5
1 Base2 Network Adapter	1325495	489.	244.5
Token Ring Network Adapter	1325496	649.	324.5
LocalTalk Network Adapter	1325494	299.	149.5
PCL Font Card-Publication	1329153	239.	119.5
PCL Font Card-Presentations	1329154	239.	119.5
PCL Font Card-Word Process	1329155	239.	119.5
Font Card Adapter (12L,12R,1 R)	1325231	79.	39.5
Font Cartridge Adapter(16L)	1329 37	2 9.	1 4.5
Maintenance Kit (16L)	132914	399.	199.5
Maintenance Kit (12L,12R,1 R)	1325531	399.	199.5
Serial Cable - 2 -Foot	85 9386	48.	24.
Parallel Attach Cable(4 39)	1525612	48.	24.

Maximum quantity = one each per IBM 4 39 LaserPrinter ordered

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Japanese OS/2 2.1 and Related Products Now Available Elsewhere

The Japanese versions of OS/2 2.1 (OS/2 J2.1) and related products are now available in the USA, Canada, and European countries.

Now, everyone in North America and Europe will be able to enjoy Japanese versions of OS/2 and its related products.

OS/2 J2.1 is available in these countries through fulfillment arrangements with Japanese trading companies. These trading companies will accept orders for OS/2 J2.1 and its related products, such as:

OS/2 J2.1 (CD-ROM : 5605-PAQ, Diskette: 5605-PBQ)

C Set++

OS/2 Toolkit J2.1

SOMobjects Toolkit J2.0

LAN Server 3.0

CM/2 J1.1

DB2/2

WorkFrame/2

For a list of the specific Japanese OS/2 products available in other countries, please contact the appropriate trading company.

Service

Customers can get service from the trading companies for the acquired OS/2 and related products.

Additional Information

Contact the trading companies about the following subjects:

Actual availability

Price

Payment

Upgrade

Additional License

Distributed features

Support

Subsequent versions of the listed products will also be provided by the trading companies. To order them, please contact the companies.

List of Companies

Eastern USA

M.I.S.I Company, Ltd.
Address: 350 Park Ave., New York NY 10022
Phone: 1-212-355-5585
Fax: 1-212-355-0357
Contact person: Mr. Keizo Tajima

Chugai Boheki Corp.
Address: 55 Mall Drive, Commack NY 11725
Phone: 1-516-864-9700
Fax: 1-516-864-9710
Contact persons: Mr. Micky Idobe, Mr. Fred Katsumi

Western USA

M.I.S.I Company, Ltd.
Address: 1999 West 190th Street, Torrance CA 90504
Phone: 1-310-516-1402
Fax: 1-310-516-6040
Contact person: Mr. Makoto Takatsu

Unitrendix Management Co., Inc.
Address: 19300 South Hamilton Ave, Suite 165, Gardena CA 90248
Phone: 1-310-329-3265
Fax: 1-310-329-3601
Contact person: Mr. Matsuhiro Okabe

Germany

Software Information Systems GmbH
Address: Friedrich-Ebert-Strasse 20, 40210 Düsseldorf, Germany
Phone: +49-0211-358493
Fax: +49-0211-358300
Contact person: Mr. Hata

United Kingdom

Chugai Boheki UK, Ltd.
Address: Computer House 6, Garrick Industrial Centre
Garrick Road, London NW96AQ
Phone: +44-81-202-3434
Fax: +44-81-202-9917
Contact person: Mr. Kusakabe

Technical Support for DBCS OS/2 for Developers Outside Asia

Microburst, Inc., of Gaithersburg, Maryland USA announces that it is providing technical support for Double-Byte Character Set (DBCS) versions of OS/2 2.1 for developers located outside Asia.

Microburst will arrange to provide English-language documentation, Asian keyboards, and technical support on a fee basis.

Support is provided for the following products in all DBCS-language versions (including Japan, Korea, Taiwan, ...):

OS/2 2.1

C Set++

Developer toolkits

LAN Server

Communications Manager

MicroBurst focuses on support issues that are specific to DBCS versions, for example, bugs and development issues that occur in DBCS versions, but do not occur within single-byte English and European-language versions.

Developers may contact MicroBurst, Inc. as follows:

Mail: 9035 Shady Grove Court, Gaithersburg MD 20877 USA
Voice phone: 1-301-330-2995
Fax phone: 1-301-330-8609
CompuServe: 70334,3616
Internet: 70334.3616@compuserve.com

IBM Japan Developer Assistance Program Contact Methods

Developers in Japan can become members of the IBM Worldwide Developer Assistance Program via fax. The fax phone number is +81-3-3495-2045.

Once enrolled, members can obtain technical support through Nifty-Serve. The forum name on Nifty-Serve is FIBMFEEL (type GO FIBMFEEL at any > prompt).

Technical support is offered in Japanese for DBCS versions of OS/2, OS/2 beta versions, the OS/2 Toolkit, the OS/2 Device-Driver Toolkit, and OS/2 device-driver development.

If you have any questions, please send us mail as follows:

Developer Support: sgb01421@niftyserve.or.jp
Device-Driver Development: hhh03262@niftyserve.or.jp

IBM LAN Distance 1.1 Beta Drop 4 Available in E/ME/A

Readers of this newsletter in Europe, the Middle East, and Africa (E/ME/A) can now obtain Beta Drop 4 of the IBM LAN Distance 1.1 product. This beta program ends on 30 May 1994.

For more information about this beta, its features, and highlights, call +44-256-50096 (a U.K. phone number), listen for instructions (in English only), and then enter document number 30502 and your fax machine's phone number. Information about this beta program will then be sent to your fax machine.

The beta is available only on CD-ROM. This is the first beta CD made available by the IBM E/ME/A Personal Software Products Beta Programme service for people in E/ME/A.

To order the beta CD-ROM, call IBM Software Manufacturing Company-Europe, Direct Services (SMC-E DS) in Copenhagen, Denmark, and specify part number 93G5912. Operators speaking the following languages are available. Please ensure that you dial your country's international access code before dialing the listed number. Note that 45 is the country code for Denmark.

Language	**Call**
Dutch	45-4-810-1400
English	45-4-810-1500
French	45-4-810-1200
German	45-4-810-1000
Italian	45-4-810-1600
Spanish	45-4-810-1100
Telefax	45-4-814-2207

There is a handling charge for the CD-ROM, payable in the customer's local currency. Payment methods include Eurocard, MasterCard, JCB, VISA, American Express, Diners Club, international money order, and Danish cheques. Shipments begin on 21 March 1994 subject to availability.

800 Phone Numbers

The 800 phone numbers below come from two sources:

1. This issue and preceding issues of PSP Developer Support News
2. Information posted on IBM internal forums.

Common Desktop Environment Developers Conference	1-800-225-4698
OS/2 Multimedia Tools	1-800-228-8584
IBM PSP Developer Support Marketing Center	1-800-285-2936[11]
OS/2 Sales (in Canada, 1-800-465-7999)	1-800-342-6672
IBM National Telesales Marketing (IBMCALL)	1-800-426-2255
IBM Software Installer 1.2 for OS/2	1-800-426-2279
Boca Raton Technical Services Software System Test	1-800-426-2622
IBM Direct (in Canada, 1-800-465-7999)	1-800-426-2968
DCE Client for Windows Beta Program and LAN NetView Extended Beta Test (in Canada, 1-800-561-5293)	1-800-426-3040
IBM Business Partner Locator (PS/2 Dealers)	1-800-426-3377
IBM FAX Information Service (in Canada, HELPFAX, 1-800-465-3299)	1-800-426-4329
OEM Sales	1-800-426-4579
PS/2, PS/1, PC publications	1-800-426-7282
Skill Dynamics (Education) (in Canada, 1-800-661-2131)	1-800-426-8322
Ultimedia Developer Assistance Program	1-800-426-9402
The Corner Store	1-800-428-9672
Programmer's Paradise	1-800-445-7899
Integrated Systems Solutions Corporation	1-800-472-4772
OS/2 2.1 ServicePak	1-800-494-3044
CompuServe Membership	1-800-524-3388
Personal Systems Competency Center + TALKLink (OS2BBS) (in Canada IBMLink, 1-800-268-3100; Customer Assistance group, 1-800-465-1234)	1-800-547-1283
Personal Systems Technical Solutions magazine	1-800-551-2832
Software Vendor Systems Center	1-800-553-1623
several Developer Assistance Programs	1-800-627-8363[11]
Berlitz Translation Services (in Canada, 1-800-387-5500)	1-800-628-4808
IBM Developer Connection for OS/2 (in Canada, 1-800-561-5293)	1-800-633-8266
IBM Direct Response Marketing	1-800-633-8266
GEnie	1-800-638-8369
IBM Custom Application Porting Workshops	1-800-678-31UP
Delphi	1-800-695-4005
Personal Systems HelpCenter	1-800-772-2227
PRODIGY	1-800-776-0845 and 1-800-776-3449
Indelible Blue, Inc.	1-800-776-8284
America Online	1-800-827-6364
Business Depot, Inc.	1-800-844-8448
CompuServe	1-800-848-8199
IBM PSP Technical Interchange Registration	1-800-872-7109[11]
IBM Publications	1-800-879-2755

[11] Number works in Canada also

IBM Ultimedia Tools Series	1-800-887-7771
PenDOS Software Developer Kit	1-800-888-8242
IBM Software Manufacturing Company	1-800-926-0364
OS/2 Developer magazine	1-800-926-8672
OS/2 Free Seminar Enrollment	1-800-937-3737
DB2 Technical Conference	1-800-955-1238
Drake Training and Technologies (for Professional Certification Program from IBM)	1-800-959-3926[11]
IBM Customer Support Center	1-800-967-7882
Personal Software Products Support Center (Defect report) (in Canada, 1-800-465-2222)	1-800-992-4777

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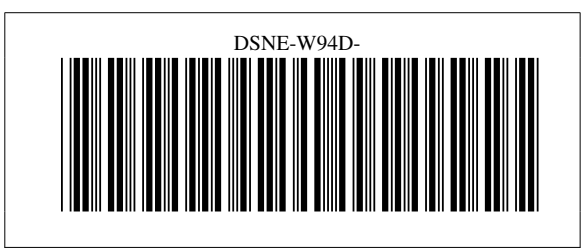
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