

IBM VoiceType Dictation for OS/2 Version 1.1

Now you can talk directly into your computer and create text faster than most people can type, using the highly accurate speech recognition solution — IBM VoiceType™ Dictation for OS/2®. The text you create can be saved to a file or integrated with other applications for formatting and editing. You can also control the OS/2 Workplace Shell® and applications by speaking in the same language as your version of IBM VoiceType Dictation.

VoiceType Dictation uses proven technology based on more than two decades of IBM experience that was previously available in the award-winning IBM Personal Dictation System. By making speech recognition available to the millions of PC users, VoiceType Dictation represents a major change in the way you work with your computer.

A sophisticated statistical language model that understands common word patterns and a detailed understanding of your voice allows VoiceType Dictation to convert your speech accurately to text. Words that sound alike such as *to*, *too*, and *two* are easily handled.

The product includes a general office vocabulary of over 22,000 words. You can add up to 2,000 words of your choosing while dictating. To make the system even more accurate, VoiceType Dictation can be tailored to various professions like medicine and journalism with specialty vocabularies designed specifically for them.

With VoiceType Dictation, you won't need to stop and make corrections as you are dictating; you can edit after you complete your thoughts. VoiceType can even talk back to you and replay what you said, so that you never have to rely on memory to get the details right.

IBM VoiceType Dictation for OS/2 Version 1.1 requires OS/2 2.1, or later (including OS/2 Warp), and a personal computer with the appropriate IBM VoiceType Dictation Adapter and a 486SX-25MHz, or higher, processor (including Pentium** processors).

The Solution Pac includes the software, a microphone, and an IBM VoiceType Dictation Adapter.

IN BRIEF . . .

- ◆ **Capture Precisely What You Say.** Sophisticated technology accurately converts your speech to text. Optional vocabularies are available for improved accuracy in various professions.
- ◆ **Invest in Your Personal Productivity.**
 - **No more typing.** Talk directly into your computer and create text that is accurate and available within seconds.
 - **Proven IBM Technology.** Follow-on to the award-winning IBM Personal Dictation System.
 - **Work where you want.** Work at your desktop or use our PCMCIA card in your notebook computer.
- ◆ **Work The Way You Think.** Maintain your train of thought and create text during your busy moments.
- ◆ **Anyone Can Use This System.** Particularly if you dictate often and require immediate document turn-around, VoiceType Dictation can even adapt to you!

Description	Planned Availability	One-Time Charge
IBM VoiceType Dictation for OS/2 1.1		
U.S. English Software Only	11/08/94	\$ 599
U.S. English ISA Solution Pac	11/08/94	999
U.S. English Micro Channel® Solution Pac	11/08/94	1,099
U.S. English PCMCIA** Solution Pac	11/08/94	1,099
Spanish Software Only	12/09/94	599
Spanish ISA Solution Pac	12/09/94	999
Spanish Micro Channel Solution Pac	12/09/94	1,099
Spanish PCMCIA Solution Pac	12/09/94	1,099

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Description

IBM VoiceType Dictation for OS/2 is a highly accurate, large vocabulary speech recognition program that converts speech to text. In many cases it can recognize words that are run together, slurred, or partially obscured by background noise. The product includes a language model that understands common word pattern usage.

VoiceType Dictation includes a general business, office vocabulary. IBM has optimized the size of the vocabulary for performance and accuracy. This optimization, in combination with the language model, results in a program that can be faster and more accurate than products with a larger vocabulary. Users can also add up to 2,000 words of their own to the vocabulary.

Dictation

The general business language vocabulary included with VoiceType Dictation for OS/2 can be utilized by a variety of users who need to create and edit text. Users who would be especially interested are corporate users of E-mail and word processing systems, executives, students, and technical writers. The ability to use verbal short cuts for lists, standard headings, and command sequences can increase productivity of these users. In addition, users who type slowly can achieve greater speed and accuracy.

The sophisticated adaptive capability of the system to learn users' dictation styles and accents can allow students who speak English as a second language to achieve greater speed and spelling accuracy. Technical writers can easily add special and foreign words to the system. Translators may want to explore combining the VoiceType Dictation for OS/2 with the IBM Translation Manager (TM/2) product for higher quality output.

VoiceType Dictation includes a vocabulary of over 22,000 words, an associated general office language vocabulary supporting U.S. English or Spanish dictation, and a spelling dictionary of 100,000 words. Text is dictated into a dictation window and can be transferred into applications running as Presentation Manager® applications, in OS/2 Windows, DOS Windows, or WIN-OS/2™ Windows.

VoiceType Dictation temporarily stores users' spoken words. Users can listen to their spoken words to assist in the correction of dictated text. A loudspeaker is required if this feature of the product is used. Because the spoken word file can be quite large, the spoken word acoustic file is erased once the dictation is corrected and stored as coded text. The coded text file is much smaller than the spoken acoustic file, using far less disk storage.

End-User Productivity

General Business:

- Eliminated or reduced time proofreading, correcting, typing, and waiting for transcribing.
- Faster capture of information from individuals who have limited ability or reluctance to use keyboards.
- Improved end-user quality and information content of correspondence, reports, and similar documents.
- Program's adaptive capabilities make it well suited for users who speak English as a second language because it helps enable greater speed and spelling accuracy.

Medical:

- Immediate availability of documents reduces the

amount of transcription proofreading and allows immediate transmission to co-workers.

- Dictation can be performed while wearing gloves or working on a patient without looking at or touching the keyboard.
- The confidentiality of patient notes and charts may be increased because of reduced reliance on outside transcription services.
- Costs can be reduced for transcriptions.

Journalist:

- Improved productivity with use of speech.
- Reduced reliance upon the keyboard.

Voice Manager: The Voice Manager is a key part of IBM VoiceType Dictation. The Voice Manager provides two broad categories of speech-related capabilities:

- Navigation
- Dictation

The Voice Manager navigation function automatically speech-enables the OS/2 Workplace Shell and selected OS/2 applications that internally use the standard Presentation Manager user interface controls, such as menus, dialog boxes, and list boxes. Users can, for example, speak the words that appear in the menu bar, push buttons, check boxes, and radio buttons of standard Presentation Manager applications. Speech commands are also available to scroll client application areas and list boxes.

For navigation, the national language of the operating system and the selected OS/2 application must be the same as the national language version of the IBM VoiceType Dictation for OS/2.

Other OS/2 applications can be speech-enabled by defining voice macros for them (an application that responds to voice through the use of these functions is speech-enabled). Voice macros allow users to define a sequence of actions that can later be started by speaking a simple command. The macros can also emulate keyboard functions.

The Voice Manager provides function for the creation of text macros and for the easy transfer of dictated text to other applications. Text macros allow users to create standard text that can be included in the dictation window with a simple spoken command. Use of text macros can significantly increase the user's overall dictation speed. Dictated text can be transferred to another application such as a word processor through the use of cut and paste.

Speech-Enabled Applications: The Voice Manager provides a quick, easy way for users to bring the power of speech recognition to existing applications. The Voice Manager supports speech-enabling applications through three of its functions:

- Automatic enablement
- Command macros
- Text transfer

The U.S. English version of IBM VoiceType Dictation for OS/2 has been tested with the following applications. The listed applications are compatible with the Voice Manager functions of automatic enablement, command macros, and text transfer.

- OS/2 PM Workplace Shell Version 2.1
- OS/2 System Editor Version 2.1
- OS/2 Communications Manager 3270 Emulator Version 2.0
- DeScribe** for OS/2 Version 4.0

- Lotus** Notes** for OS/2 Version 3.0
- Lotus 1-2-3** for OS/2 Version 1.1
- Microsoft** Word** for OS/2 Version 1.1
- WordPerfect** for OS/2 Version 5.2

For navigation, the national language of the operating system and the application must correspond to the language of IBM VoiceType Dictation for OS/2 Version 1.1.

Additional OS/2 2.1 and Presentation Manager applications may work, though IBM has not tested them at this time.

Investment Protection — Applications Investment: With IBM VoiceType Dictation for OS/2, existing applications are protected and extended. Text created by voice can be passed directly to applications for document production without an intermediate step such as transcribing.

Product Positioning

IBM now offers the following speech recognition dictation products:

- IBM VoiceType Dictation for Windows
- IBM VoiceType Dictation for OS/2

These products require discrete speech (not continuous) and support recognition of very large vocabularies and speech navigation.

The VoiceType Dictation for Windows and VoiceType Dictation for OS/2 are stand-alone products with the same function. Selection should be made based on your operating system environment. VoiceType Dictation for OS/2 replaces the previously announced IBM Personal Dictation System.

IBM, in addition, offers the following speech recognition product:

- IBM Continuous Speech Series

The IBM Continuous Speech Series (ICSS) is a command-and-control product for applications that are transaction-oriented (such as stock sales, inventory manipulation, and information retrieval). ICSS operates with well-defined grammar and a highly structured, predictable, medium-sized vocabulary. Whereas, the VoiceType Dictation for Windows and VoiceType Dictation for OS/2 are dictation products with a large flexible vocabulary for general office use. In addition, industry specific language models are available for VoiceType Dictation for Windows and VoiceType Dictation for OS/2. ICSS is not an end-user product but is intended for developers to imbed English speech recognition function into their Windows, OS/2, or AIX® applications.

Publications

The following publications will be available from IBM. To order, contact your IBM representative or call 800-879-2755.

Title	Order Number
IBM VoiceType Dictation Fact Sheet	G221-3915

One copy of the following publication is supplied automatically with IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English:

Title	Order Number
IBM VoiceType Dictation for OS/2 Version 1.1 User's Guide	S19H-1042

One copy of the following publications are supplied automatically with IBM VoiceType Dictation for OS/2 Version 1.1, Spanish:

Title	Order Number
IBM VoiceType Dictation for OS/2 Version 1.1 User's Guide	SH10-9104
IBM VoiceType Dictation for OS/2 Version 1.1 Reference Card	SH10-9105

Additional copies of the publications will be available for a fee after planned availability. These copies may be ordered from your IBM representative.

Education Support

The appropriate curriculum will be updated, as necessary, to include the enhancements in this announcement.

Call Education and Training at 800-IBM-TEACH (426-8322) for education catalogs, schedules, and enrollments.

Technical Information

Specified Operating Environment

Hardware Requirements: All configurations:

- A PS/2®, ValuePoint™, ThinkPad®, or PC-compatible with a 486SX-25MHz processor.
- At least 8MB of available memory (above operating system requirements).
- At least 32MB to 48MB of available disk space, depending on the language chosen, plus an additional 18MB to 30MB during the enrollment process (for U.S. English, 32MB of disk space is required for regular operation, plus an additional 30MB for the enrollment process).
- An appropriate IBM VoiceType Dictation Adapter (or IBM Personal Dictation Adapter) and slot.
 - An available ISA slot for the IBM VoiceType ISA Adapter, or
 - An available Micro Channel slot for the IBM VoiceType Micro Channel Adapter, or
 - An available Type II PCMCIA slot for the IBM VoiceType PCMCIA Adapter
- A microphone (included in the Solution Pac or available as an option).
- A loudspeaker (optional but recommended) and cables compatible with the VoiceType Dictation adapter.

Software Requirements: OS/2 2.1, or later (including OS/2 Warp), is a prerequisite for IBM VoiceType Dictation for OS/2 Version 1.1 when using an IBM VoiceType Dictation Adapter. The IBM VoiceType PCMCIA Adapter requires card and socket services that meet the Personal Computer Memory Card International Association (PCMCIA) 2.0x standard.

Additionally, PCMCIA device drivers may be required from the manufacturer when using non-IBM systems.

Installation of REXX for OS/2, which is included with the operating system, is required.

IBM VoiceType Dictation for OS/2 Version 1.1 is a prerequisite for the optional IBM VoiceType Vocabularies for Dictation Version 1.1. Refer to Software Announcement 294-706, for information about IBM VoiceType Vocabularies for Dictation Version 1.1.

For navigation, the national language of the operating system must correspond to the language of IBM VoiceType Dictation for OS/2 Version 1.1.

Compatibility: The U.S. English version of IBM VoiceType Dictation for OS/2 Version 1.1 has been tested and found compatible with the following applications:

- OS/2 PM Workplace Shell Version 2.1
- OS/2 System Editor Version 2.1
- OS/2 Communications Manager 3270 Emulator Version 2.0
- DeScribe for OS/2 Version 4.0
- Lotus Notes for OS/2 Version 3.0
- Lotus 1-2-3 for OS/2 Version 1.1
- Microsoft** Word for OS/2 Version 1.1
- WordPerfect for OS/2 Version 5.2

U.S. English IBM Personal Dictation Vocabularies currently installed by a licensed user will be automatically upgraded to be compatible with IBM VoiceType Dictation for OS/2 at the time the base system is upgraded from IBM Personal Dictation System, U.S. English to IBM VoiceType Dictation for OS/2, U.S. English. The IBM Personal Dictation Vocabularies will not function if installed after IBM VoiceType Dictation for OS/2 is installed.

Refer to Hardware Announcement 194-394, for additional technical information about IBM VoiceType Dictation Adapters and Microphones.

The IBM Personal Dictation System vocabularies, U.S. English, are not compatible with IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English.

The IBM Personal Dictation Adapters are compatible with IBM VoiceType Dictation for OS/2.

The IBM VoiceType Adapters are compatible with a wide range of 80486 PCs (IBM and non-IBM) that include the appropriate compliant slots.

The IBM VoiceType ISA Adapter has been tested with the IBM VoiceType Dictation Version 1.1 and is compatible with the following systems:

- IBM ValuePoint
 - 6384
 - 6492-X4F
 - P60D
- Docking Stations for IBM ThinkPads
 - 360C
 - 755C

The IBM VoiceType Micro Channel Adapter has been tested with the IBM VoiceType Dictation Version 1.1 and is compatible with the following systems:

- IBM PS/2
 - 8590
 - 8595
 - 9577
 - 9595 (486DX2-33/66 and Pentium)

The IBM VoiceType PCMCIA Adapter is compatible with various 80486 PCs (IBM and non-IBM) with Type II or Type III PCMCIA Release 2.0 compliant slots, and Card and Socket Services Version 2.0 or 2.01. The IBM VoiceType PCMCIA Adapter has been tested with the IBM VoiceType Dictation Version 1.1 and is compatible with the following systems:

- IBM ValuePoint
 - 6384
- IBM ThinkPads
 - 360
 - 720
 - 750C
 - 750P
 - 755CS
- Toshiba
 - T4700C
- AST
 - 4/33SL
- NEC VERSA
 - UV-50-4-34

The microphone has been tested and is compatible for use with the IBM VoiceType Adapters and IBM VoiceType Dictation application software.

The microphone is designed to capture your voice at close range and reject background noise. Excessive background noise can affect speech recognition accuracy.

Limitations: Limitations with IBM VoiceType Dictation for OS/2 Version 1.1:

- If another language should be installed together with U.S. English, U.S. English must be installed first. Languages other than U.S. English can be installed in any order.
- VoiceType Dictation and its files should not be compressed with disk compression utilities such as Stacker** and DoubleSpace**.
- VoiceType Dictation may not work with all processor upgrade boards.

The VoiceType Dictation software does not currently support the sense input audio interfaces on the VoiceType Dictation Adapters.

The VoiceType PCMCIA Adapter can be “hot plugged” into or out of a PCMCIA slot when the VoiceType Dictation application software is not active. The adapter must be present to start the VoiceType Dictation application software.

The IBM ThinkPad 750C is supported by the IBM VoiceType Dictation PCMCIA Adapter but not by either the IBM VoiceType Dictation ISA Adapter or Micro Channel Adapter.

Performance Considerations: Speech recognition requires significant system resources to provide satisfactory response. Particular attention should be paid to the system requirements, which should be considered minimum system requirements. Performance can be influenced by many factors, but three key areas are processor power, available memory, and OS/2 swapper disk space.

As for processor speed, faster machines provide a quicker response to any user-initiated function whether it be by keyboard or spoken commands. As with a keyboard, processor speed does not affect recognition accuracy. On a faster machine, you will notice all speech recognition functions completed faster. For example, if you speak at a specific dictation rate, then on a faster machine the translation of the spoken words into recognized text will complete faster. For rapid input on a slow processor, one can notice that there is a delay after the dictated input completes and the translation of this input into text finally appears on the screen. This delay is less on faster processors.

If you use relatively large programs (such as a word processor) with the speech recognition system, then sufficient RAM for both programs is useful to prevent excessive swapping. (One can notice the effect of swapping even on the word processing alone if real RAM is reduced.) In addition, sufficient contiguous disk space and a 32-bit file system greatly improve the ability to do swapping rapidly.

Refer to the **Technical Information** section for recommended hardware configuration.

Planning Information

Customer Responsibilities: The customer must provide at least the minimum hardware and software environments in which the VoiceType Dictation for OS/2 will operate.

Each user must enroll on the system to insure the system can recognize each individual's pronunciation of words. The enrollment process also helps users learn the "discrete" speech pattern understood by VoiceType Dictation, wherein users leave a short clear space between words. This results in very high accuracy and near instant recognition.

The customer is responsible for selecting and installing an optional loudspeaker and the related cables. The loudspeaker does not need to be an expensive unit, but it should have the following characteristics:

- Amplified loudspeaker
- Monaural (stereo speakers are not required)
- Volume and tone controls

An example of a loudspeaker that has performed satisfactorily is the Radio Shack 32-2040 compact one-watt speaker/amplifier.

It is recommended that the customer use the microphone included in the Solution Pac from IBM. If the customer prefers a different microphone, care should be used in selecting an alternative microphone since the selection can influence speech recognition accuracy. An alternative microphone should be very high quality and designed for close-range pickup to reduce background noise. The microphone must have a flat audio frequency response range. It is recommended enrollment be performed with the alternative microphone selected. One sample of microphone characteristics that has been tested with IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English is given below:

Type	Dynamic
Frequency response:	50 to 15,000 Hz
Polar pattern:	Cardioid (unidirectional) response, uniform with frequency, symmetrical about axis
Impedance:	150 ohms for connection to microphone inputs rated at 19 to 300 ohms
Output level:	(1,000 Hz) Open Circuit voltage -47.0 dB (4.5 MV) Power level -66 dB
Sensitivity:	(Hum) 38.4 dB equivalent SPL in a 1 millioersted field

Packaging: VoiceType Dictation for OS/2 Software only is distributed in one package with the following materials:

- VoiceType Dictation for OS/2 Version 1.1 User's Guide (includes Program License Agreement and License Information)
- Proof of License
- 3.5-inch (1.44MB) installation diskettes
- Getting Started Instructions
- Dictation Reference Card
- Registration Card
- CompuServe Information Service Flyer
- Upgrade Instructions

VoiceType Dictation for OS/2 Version 1.1 Solution Pacs are distributed in one package with the following materials:

- VoiceType Dictation for OS/2 Version 1.1 User's Guide (includes Program License Agreement and License Information)
- Proof of License
- 3.5-inch (1.44MB) installation diskettes
- Microphone with cable, warranty, and assembly instructions
- Getting Started Instructions
- Dictation Reference Card
- Registration Card
- CompuServe Information Service Flyer
- An IBM VoiceType Dictation Adapter (ISA or Micro Channel or PCMCIA)

The separate documentation package includes the following:

IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English User's Guide

Security, Auditability, and Control

The announced programs use the security and auditability features of the operating system and IBM system unit in which they are installed.

User management is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communication facilities.

Ordering Information

Orders for new licenses will be accepted now.

Shipments will begin on the planned availability date.

To order the programs in this announcement for order type, specify the order type number, feature number, part number, program name, media, and quantity.

Program Package — program diskette with documentation.

OrderType Number	Feature Number	Part Number	Program Name
5875-XXX	9211	19H1037	IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English Software only*
5875-XXX	1209	19H1031	IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English ISA Solution Pac*
5875-XXX	1341	19H1033	IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English Micro Channel Solution Pac*
5875-XXX	1343	19H1035	IBM VoiceType Dictation for OS/2 Version 1.1, U.S. English PCMCIA Solution Pac*
5875-XXX	6054	23H9009	IBM VoiceType Dictation for OS/2 Version 1.1, Spanish Software only*
5875-XXX	0044	23H1542	IBM VoiceType Dictation for OS/2 Version 1.1, Spanish ISA Solution Pac*
5875-XXX	0028	23H1548	IBM VoiceType Dictation for OS/2 Version 1.1, Spanish Micro Channel Solution Pac*
5875-XXX	0070	23H1554	IBM VoiceType Dictation for OS/2 Version 1.1, Spanish PCMCIA Solution Pac*

* Media = 3.5-inch diskette

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

The authorization is given by sending the customer a Proof of Additional License certificate. The Proof of Additional License certificate has its own part number and feature number.

Order Type Number	Feature Number	Part Number	Program Name
5872-XXX	0094	19H1074	IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English Proof of Additional License certificate
5872-XXX	0040	22H8574	IBM VoiceType Dictation for OS/2 Version 1.1 Spanish Proof of Additional License certificate

Documentation — separate documentation with no diskette.

Order Type Number	Feature Number	Part Number	Program Name
5876-XXX	0094	19H1042	IBM VoiceType Dictation for OS/2 Version 1.1 User's Guide

Terms and Conditions

Licensing: The program in this announcement is licensed under the terms and conditions of the IBM Program License Agreement. A copy of the agreement is included in the program package.

Additional License: Proof of Additional License certificate must be acquired.

Limited Warranty: Program — Yes. Media — Three months.

Additional Licenses: Yes. Media — Not applicable.

IBM VoiceType Dictation Adapters:

- Field-Installable Feature: Yes
- Warranty Period: One year
- Customer Setup: Yes

All other terms and conditions for IBM VoiceType Dictation Adapters are the same as those applicable to the IBM machine type in which the feature is installed.

The microphone is warranted by the product supplier and not by IBM. IBM sells the microphone "as is", without warranty of any kind, including the warranties of merchantability and fitness for a particular purpose. Warranty coverage questions should be addressed to the microphone supplier.

Program Services: Pre-sale information, installation, and technical support is provided by Software Vendor Operations (SVO) in Dallas, Texas. SVO can be reached via the CompuServe Information Service (GO TALK2ME), the Internet (TALK2ME@VNET.IBM.COM), or telephone (800-TALK-2-ME) (852-5263). Support is available Monday through Friday, from 7:00 a.m. to 7:00 p.m. central time. Support by SVO is provided in English for both the English and Spanish IBM VoiceType Dictation products.

Volume Orders: Not applicable

30-Day, Money-Back Guarantee: The IBM 30-day, money-back guarantee applies.

National Education License Fee: A National Education License Fee (NELF) is available under the terms and conditions of the Education Allowance Attachment. The NELF, which represents a 30% discount off the single unit price, is not subject to any further discount or allowance.

Charges

Order Type Number	Feature Number	Part Number	Program Name	One-Time Charge
5875-XXX	9211	19H1037	IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English, Software only	\$ 599
5875-XXX	1209	19H1031	IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English, ISA Solution Pac	999
5875-XXX	1341	19H1033	IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English, Micro Channel Solution Pac	1,099
5875-XXX	1343	19H1035	IBM VoiceType Dictation for OS/2 Version 1.1 U.S. English, PCMCIA Solution Pac	1,099
5872-XXX	0094	19H1074	Proof of Additional License, U.S. English	499
5875-XXX	6054	23H9009	IBM VoiceType Dictation for OS/2 Version 1.1 Spanish, Software only	599
5875-XXX	0044	23H1542	IBM VoiceType Dictation for OS/2 Version 1.1 Spanish, ISA Solution Pac	999
5875-XXX	0028	23H1548	IBM VoiceType Dictation for OS/2 Version 1.1 Spanish, Micro Channel Solution Pac	1,099
5875-XXX	0070	23H1554	IBM VoiceType Dictation for OS/2 Version 1.1 Spanish, PCMCIA Solution Pac	1,099
5872-XXX	0040	22H8574	Proof of Additional License, Spanish	499

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.