WinSpeech Help Index

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Overview

WinSpeech 3.0N is a text-to-speech applications designed for 32-bit Windows system.   It reads English text and produces speech sound to the audio device in your PC.   The system requirements for running WinSpeech 3.0N are,

.IBM PC or compatible system running Windows 95, NT 3.x or 4.0.
.Hard disk with 3 MB or more free space.
.A mouse or equivalent pointing device.
.Sound card (*)

Note: Sound card is recommended for Windows 95 users and is required for Windows NT users.   Please refer to Appendix B for more information.

WinSpeech takes text input from the following sources:

1. Editing window: Text in the editing window can be from typing in manually, pasting from the Clipboard, or opening files.   WinSpeech can read files in text or Windows Write (.wri) format.

2. The Clipboard: WinSpeech can read text from the Clipboard directly.   In auto mode the speaking starts   whenever the contents on the Clipboard change.   In nonautomatic mode, the speaking starts when a hot key is pressed.   The speech control hot key can be pressed directly from the client applications.   This feature allows WinSpeech to be used as a speech add-on utility for many existing Windows applications.

3. DDE link: WinSpeech provides Windows DDE interface to get text from other Windows applications to talk, so it can be used as a simple speech engine for other programs that wish to implement text-to-speech function.

4. Command line text string: A literal string or text file can be specified in the command line to be spoken during the starting up of the WinSpeech program.

For assisting low vision users, audio guidance is available throughout the program for reporting the current status and repeating the dialog messages.

WinSpeech generates speech by first translating English text into a sequence of phonic symbols.   Custom dictionaries are used for looking up words that are mispronounced by the internal algorithm.   A Dictionary Editor is included for users to create their own dictionaries.

Getting Started

A main window appears after the WinSpeech program is invoked.   On top of the main window are the Menu Bar and a row of graphic buttons for <u>commands</u>.   Below the graphic buttons there is a small area in white background for displaying the ongoing speech from the Clipboard or the DDE channels.   In the center of the main window is the text area for editing and displaying the main text contents.   The <u>control panel</u> locates on the top right corner of the main window, and it contains three sliders for volume, tempo, and pitch adjustments.   On the bottom of the main window there are two status display areas in gray background colors.   The one on the left shows miscellaneous program status, and the one on the right shows the name of the file that is opening.

Main Menu commands

FILE   Contains commands that load, save document files, or exit.
EDIT   Contains commands for editing text.
READ   Starts or Stops the text reading.
OPTIONS   For setting options that affect the operation of the WinSpeech program.
LANGUAGE   For selections of Dictionary or Voice Font to use.
INFORMATION   For Help, About and Order information.

FILE MENU

Contains the sub-menu for maintaining files, and for exiting from the program.

NEW   To clear the contents in the text area.

OPEN   To load a document file into the text area.

SAVE   To save the document in the text area to the opened file.

SAVE AS   To save the document in the text area to a specific file.

EXIT   To exit from the WinSpeech program.

WinSpeech can read files in ASCII text and Windows WRITE (.WRI) formats.   When opening a WRITE file, only the text portion of the file will be read.   The formatting information of the WRITE file is ignored, and a new file name will be given in order to save it since WinSpeech cannot save files in WRITE format.

EDIT MENU

Contains the sub-menu for editing the document in the text area.

CUT   To cut (delete) the selected text from the document and place it onto the Clipboard.

COPY   To copy the selected text from the document and place it onto the Clipboard.

PASTE   To paste (insert) a copy of the Clipboard contents at the cursor position, or to replace the selected contents.

DELETE   To delete the selected contents.

UNDO   To undo the last change.

READS MENU

Contains the sub-menu for controlling the document reading.

START   To start reading the document.   If one section of the document is selected (highlighted), only the selected section will be read.   If no selection is made to the document, reading will be started from the cursor position to the end of the document.

START LOOP   To start reading the document continuously until the PAUSE or STOP command is given.

PAUSE   To stop (interrupt) the reading and leave the cursor at current location.

STOP   To stop (interrupt) the reading and reset the cursor to its original location.

Control Panel

Control Panel locates on the top right corner of the main window and it contains three sliders for adjusting volume, speed, and pitch.   To adjust, point the mouse cursor at the slider and hold down the left button to drag it up or down.

Volume   To adjust the volume of the speech.   Move it up to increase volume, down to decrease volume.   The volume adjustment affects only the "WAVE" output device.   The master volume which affects other sound devices such as MIDI or CD will not be changed.   If you move this slider all the way up (or down) and still feel the volume is too weak (or loud), you need to adjust the master volume by using the program that comes with your sound card.

Tempo   To adjust the tempo (speed) of the speech.   Move it up to increase speed, down to decrease speed.   If you are changing the tempo in the middle of the speech, you will have to wait for one or two sentences before the new tempo setting takes effect.

Pitch   To adjust the pitch of the voice.   Move it up for higher pitched voice, down for lower pitched voice.   Similar to the Tempo control, the new setting will not be in effect until the next one or two sentences if you are changing the slider in the middle of the speech.

OPTIONS

The Options dialog lets you change variables that affect the program operations.

DDE Option:

Enable DDE Talking   Check this button to enable the DDE server interface for talking. When DDE is disabled, the internal DDE conversations still go on but the contents will not be spoken.   Default setting is to enable DDE talking.

Clipboard Options:

Auto   Check this box to let the program speak the text on the Clipboard whenever the contents change.   If this box is left blank, the talking started only when the hot key is pressed.   Default setting is for Auto talking.

Hot Key   To select the hot key for Clipboard talking control.   You may pick any key or mouse button from the list   shown on the list box alone, or together with a combination of the Control and the Shift keys as the hot key.   The hot key is used as a toggle switch for starting and stopping the talking from the Clipboard.   Default hot key is <Ctrl><F1>.   For more information on hot key selection, please refer to Appendix C.

Coach options:

Enable Coach   Check this box to enable the Talking Coach (audio guidance) function. Talking coach lets you hear the current program status or a dialog message content by the pressing of a hot key.   Default is to enable this function.

Hot Key   To select the hot key to be used for Coach.   You may pick any key or mouse button from the list shown on the list box alone or together with a combination of the Control and the Shift keys as the hot key.   Default is to use <F9>.

Language options:

Translate Punctuation   Check this box to let the punctuation symbols in the text to be translated into English words, e.g., "(" is read as *parenthesis*.   When this box is left blank, punctuation symbols are skipped during the reading.   Default is to disable the translation.

Spell all capital words   Check this box to translate words that contain all capital letters into alphabets.   For example, "COD" is read as *see-oh-dee*.   Default is to enable this feature.

To accept the changes and exit, press the OK button.   To leave without changes, press the Cancel button.

LANGUAGE MENU

It contains the sub-menu for selecting dictionary and voice font file to use.

Dictionary   To select a custom dictionary file to use in the program.   WinSpeech comes with a very simple dictionary file *GENERAL.WSD*.   Users can create their own custom dictionaries by using the Dictionary Editor program.   Dictionary files are normally named with *.WSD* extension.

Voice Font   To select a voice font file to be use in the program.   Voice font files contain the voice database for the WinSpeech speech engine to produce speech.   Different voice font files can have different voice characteristics (e.g., male vs. female, enunciation styles) or database processed with different sampling rates and digitized resolutions.   The only speech font file comes with the WinSpeech is the *USENM11A.WSF*, which is a low pitched young male sound with 8 bits resolution and 11.025KHz sampling rates.

(The speech engine allows more than one voice font to be loaded at the same time, so you can use different voice fonts in WinSpeech application and the Dictionary Editor for talking even though they share the same speech engine.)

INFORMATION MENU

It contains the sub-menu for help and program information.
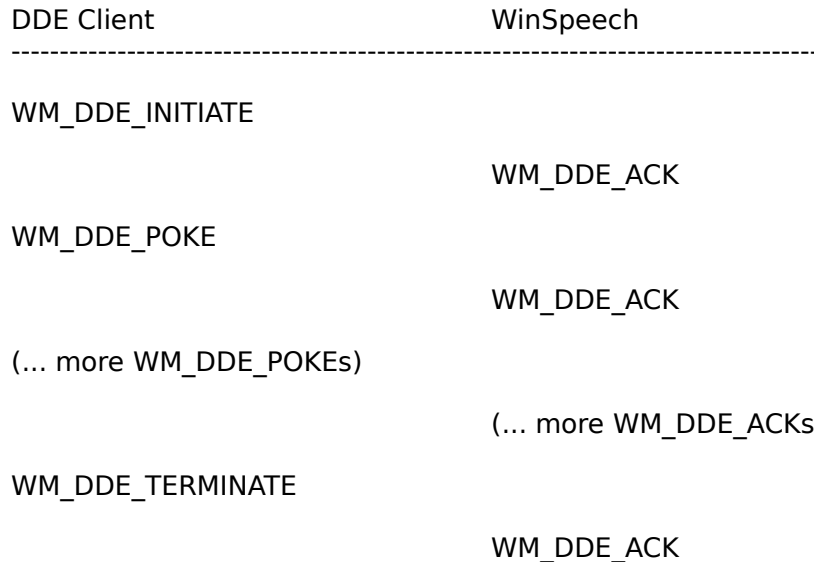
HELP   To invoke the help.

ABOUT   To display the WinSpeech program information.

ORDER   To display information on ordering WinSpeech.

DDE Server Interface

The DDE server interface allows other Windows applications to initiate a DDE conversation and render text data to the   WinSpeech program for speaking.   The following diagram shows the conversation between a DDE client application and the WinSpeech.

DDE Client   WinSpeech

WM_DDE_INITIATE

                                        WM_DDE_ACK

WM_DDE_POKE

                                        WM_DDE_ACK

(... more WM_DDE_POKEs)

                                        (... more WM_DDE_ACKs)

WM_DDE_TERMINATE

                                        WM_DDE_ACK

The DDE client application initiates a conversation by sending the WM_DDE_INITIATE message, with the application name "WSPEECH", and topic "TALK".   After WinSpeech responds with a positive acknowledge, the client can start to send WM_DDE_POKE messages to the WinSpeech for talking.   The WM_DDE_POKE messages from the client should have the text contents specified in the data field.   The item names in the poke messages are ignored. When the client is finished, it sends a WM_DDE_TERMINATE message to signal the end of the conversation.

To enable DDE talking, the "Enable DDE" button in the Program Options dialog needs to be checked.   If this button is left unchecked, the DDE conversation can still go on, but the poked data will be ignored by the WinSpeech.

Talking Coach

WinSpeech has a "Talking Coach" feature for providing audio instructions to users throughout the program.   Talking coach reports current program status when the coach hot key is pressed.   For example, it reports "Ready to read." when a file is just loaded and has not been modified, and when the input focus is on another Windows application, it says "Focusing on another program".   Also, when a warning or error message box appears, the coach speaks out the message automatically.   If the hot key is pressed when a message box is on the screen, it repeats that message.   The default setting is to use <F9> key.

Working With Other Windows Programs

By using the Clipboard mode, WinSpeech lets you add speech to your existing Windows applications, such as word processors, spread sheet programs, E-mail readers, web browsers,... or just any program that can put text to the Clipboard.

To use this speech add-on function, start the WinSpeech program and make sure the Clipboard option is set at "Auto".   After that, you can start or go back to your main application and continue your work there.   When you want to listen to something from your application, just use the mouse to highlight the block and then press <Ctrl>c, and the text should be read out to you. (pressing the <Ctrl>c key performs a COPY command that puts text to the Clipboard.   Most Windows applications do it this way but some don't - please consult the manual of the application to make sure.)

You can stop and restart the Clipboard mode speech by pressing a hot key (or a mouse button) from your main application program.   Since the speech control is an additional function to your main application, you need to pick a key that is not being used by this application to avoid conflict.   This is usually not a problem because WinSpeech offers a wide selection of keys and mouse buttons   to be used.   However, some word processor programs use up almost everything on the keyboard and it is difficult to find a spare one.   Appendix C gives a list of some popular programs with keys can be used for this speech control function. The default setting is to use the <Ctrl><F1> key.

Note that if you use a mouse button (or a mouse button together with <Ctrl> and/or <Shift> keys) as the hot key then you do not have to worry about conflicting because you can usually press the mouse button outside of your application window.

Command Line Parameters

WinSpeech lets you specify parameters in the command line.   These parameters allow you to perform functions when the program starts.   These functions include suppressing the show up of the logo, loading and reading of text string or file, and forcing the program to a minimized window.

The command line format for the WinSpeech program is:

wspeech.exe *param1 param2*

The *param1* represents the combinations one or more of the following letters.   If these letters do not appear in the command line, their default values apply.   These letters are not case sensitive.

T   To suppress showing the WinSpeech title during the start up.   Default is to show the title.

L   To load the file specified by *param2* during the start up.   Default is to load the file that was opened from the last time running the WinSpeech program.

P   To read a file or a literal string specified by *param2*.   Default is not to read.

M   To minimize the WinSpeech window when starts.   Default is to show the window.

param2 specifies either a file name or a literal text string.   When a text string is enclosed in quotation marks ("), it is taken as a literal text string, otherwise it is to specify a file name. The file name format follows the DOS full file name convension with device, path, and file name.   If no path name is given, the current working directory will be used.

The maximum length of the total command line string is 120 characters.

Example one: Suppresses title, minimizes window, and says "How are you ?" when program starts.

wspeech TmP "How are you ?"

Example two: Load (but not read) a file "C:\TXT\WELCOME.TXT"

wspeech L C:\TXT\WELCOME.TXT

WinSpeech 3.0N is initially installed without any parameter in the command line, so all default conditions apply.   To change command line parameters, do the following:

For Windows 95:

1. Click "Start" button.   Move highlight to "Settings" - "Taskbar" and click.
2. Click "Start Menu Programs" tab.   Click "Advanced" button.
3. Locate the "WinSpeech" Folder under "Start Menu" - "Programs".   Click on it to show its

contents in the right side of the split window.
4. Move the mouse cursor to the "WinSpeech 3.0N" and click the right mouse button.
Select "Properties".
5. Click "Shortcut" tab.
6. Enter parameters (append them after the "...\wspeech.exe " string) in the "Target" Edit control.
7. Press "OK" to accept and exit.
8. Close the "Exploring" and the "Taskbar Properties" windows.

For Windows NT 3.x:

1. Click on the WinSpeech 3.0N program item in the WinSpeech program group to highlight it.
2. Select "File" - "Properties" from the Program Manager.   A "Program Item Properties" window will pop out.
3. Enter parameters (append them after the "...\wspeech.exe " string) in the "Command Line:" Edit control.
4. Press "OK" to accept and exit.

For Windows NT 4.0:

1. Click "Start" button.   Move highlight to "Settings" - "Taskbar" and click.
2. Click "Start Menu Programs" tab.   Click "Advanced" button.
3. Locate the "WinSpeech" Folder under "Start Menu" - "Programs".   Click on it to show its contents in the right side of the split window.
4. Move the mouse cursor to the "WinSpeech 3.0N" and click the right mouse button.
5. Select "Create Shortcut" to create a shortcut for the WinSpeech program.
6. Move the mouse cursor to the "Shortcut for WinSpeech 3.0N" and click the right mouse button.   Select "Properties".
7. Click "Shortcut" tab.
8. Enter parameters (append them after the "...\wspeech.exe " string) in the "Target" Edit control.
9. Press "OK" to accept and exit.
10. Close the "Exploring" and the "Taskbar Properties" windows.

APPENDIX A   Phoneme Symbols Information

'   Represents that the following vowel need to be stressed.

_   Represents a silence period.

Aa   Represents a "short O" sound, as in *ox , odd*.

Ae   Represents a "short A" sound, as in *map , bat*.

Ah   Represents a "short U" sound, as in *up , love*.

Ao   Represents a "medium O" sound, as in *ball , raw*.

Aw   Represents a long vowel sound heard in *out , loud*.

Ax   Represents a "weak A" sound, as in *along , system*.

Ay   Represents a "long I" sound, as in *bite , ice*.

Eh   Represents a "short A" sound, as in *get , set*.

Er   Represents a long vowel sound as in *hurt , merge*.

Ey   Represents a "long A" sound, as in *cape , aide*.

Ih   Represents a "short E" sound, as in *big , if*.

Iy   Represents a "long E" sound, as in *bee , mighty*.

Ow   Represents a "long O" sound, as in *over , boat*.

Oy   Represents a diphthong, starts with a "short O" and then becomes a "short e", as in *toy , oil*.

Uh   Represents a "short U" sound, as in *book , mood*.

Uw   Represents a "long U" sound, as in *two , zoo*.

B   Represents a voiced consonant "B" sound, as in *buy , cab*.

Ch   Represents a voiceless consonant sound, as in *child , beach*.

D   Represents a voiced consonant "D" sound, as in *do , hood*.

Dh   Represents a voiced consonant sound, as in *that , either*.

F   Represents a voiceless consonant "F" sound, as in *fit , beef*.

G   Represents a voiced consonant "G" sound, as in *go , big*.

Hh   Represents a voiceless consonant "H" sound, as in *hit , behave*.

Jh   Represents a voiced consonant "J" sound, as in *joy , fudge*.

K   Represents a voiceless consonant "K" sound, as in   *kid , took*.

L   Represents a voiced consonant "L" sound, as in   *list , final*.

M   Represents a voiced consonant "M" sound, as in   *mom , him*.

N   Represents a voiced consonant "N" sound, as in   *now , on*.

Ng   Represents a voiced consonant sound, as in   *ink , ring*.

P   Represents a voiceless consonant "P" sound, as in   *pig , stop*.

R   Represents a voiced consonant "R" sound, as in   *red , or*.

S   Represents a voiceless consonant "S" sound, as in   *sit , miss*.

Sh   Represents a voiceless consonant sound, as in   *she , bush*.

T   Represents a voiceless consonant "T" sound, as in   *too , fit*.

Th   Represents a voiceless consonant sound, as in   *thin ,   path*.

V   Represents a voiced consonant "V" sound, as in   *vote , live*.

W   Represents a semivowel "W" sound, as in   *win , away*.

Wh   Represents a combined sound of "H" and "W", as in   *why , what*.

Y   Represents a semivowel "Y" sound, as in   *year , lawyer*.

Z   Represents a voiced consonant "Z" sound, as in   *zoo , those*.

Zh   Represents a voiced consonant sound, as in   *vision , leisure*.

APPENDIX B   Reading Without A Sound Card

WinSpeech uses the sound driver installed in the Windows system for playing sound.   For Windows 95 users, if your computer does not have a sound card, you can still run the WinSpeech program by playing sound from the PC's internal speaker.   To play from the internal speaker, you need to have a speaker device driver installed in your Windows system.   When you run the WinSpeech installation, the setup program tests to see if your system has the proper device driver installed, and gives you an option to let the setup program install the device driver for you.   For Windows NT users, you need to have a sound card installed to run WinSpeech.

The device driver for the PC's internal speaker included here is a product of the Microsoft Corporation.   The notices and license information that come with the device driver (license.txt, audio.txt, and speaker.txt) should be observed and agreed to if you need to use it.

APPENDIX C   Tested Applications List

The following is a list of applications and some keys can be used that have been tested together with the WinSpeech 3.0N.   It is provided here for reference only.   No assumption should be made to the accuracy of these information.

Adobe Acrobat Reader 2.1
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

America Online 2.5, 3.0 (Main system area)
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

CompuServe WinCIM 2.0, 3.0
    <Ctrl> F2
    <Shift> F2
    <Ctrl> <Shift> F2

GNN Web Browser, E-mail reader (GNNmessenger) 1.20
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

Grammtik 6.0
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

Lotus Word Pro 96
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

Microsoft Excel 5.0
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

Microsoft PowerPoint 4.0
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F2

Microsoft Word 6.0
    <Ctrl> F1
    <Ctrl> <Shift> F1
    <Ctrl> <Shift> F4

Netscape Navigator 2.0, 3.0
    <Ctrl> F1

<Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (NT 3.x) Calendar
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (95/NT) Cardfile
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (95/NT) Help system
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (95/NT) Notepad
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (NT 3.x) Write
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

Windows (95/NT 4.0) WordPad
            <Ctrl> F1
            <Ctrl> <Shift> F1
            <Ctrl> <Shift> F2

WordPerfect 5.1 (CMU Template)
            <Ctrl> <Shift> F2
            <Ctrl> <Shift> F8

WordPerfect 5.1 (DOS 5.1 Template)
            <Ctrl> <Shift> F2
            <Ctrl> F5
            <Ctrl> <Shift> F5

APPENDIX D   Uninstall Information

The WinSpeech 3.0N comes with an uninstall program that follows the Microsoft Windows 95 application setup guidelines.   To uninstall WinSpeech 3.0N from your system, please follow these steps:

1. Make sure both the WinSpeech and the Dictionary Editor programs are not running.

2. Remove all the user-created files from the directory where the WinSpeech program is installed (usually this is "c:\wspeech").   The uninstall program is not allowed to remove files created by you.   If you are not sure about which files to remove, skip this and proceed to step 3.

3. Run the uninstall program and follow the instructions to finish with the uninstallation.   You can either choose it from the WinSpeech folder or the Add/Remove Programs applet in the Control Panel (for Windows 95 or NT 4.0).

4. If the uninstall program reports "completed successfully" then it is done.   All the installed files, the uninstall program itself, and the Registry are cleaned up.   If the uninstall program gives you error message and instructions at the end, you should follow these instructions to manually complete the uninstallation.

To manually uninstall

If your uninstall program is damaged or cannot complete the uninstallation for other reasons, follow these steps to uninstall WinSpeech from your system manually.

1. Delete all the files from the directory where the WinSpeech is installed (usually c:\wspeech).   Remove the directory itself after the directory is emptied.

2. Remove the WinSpeech folder.   For Windows NT 3.5x system, you should highlight the WinSpeech program group from the Program Manager and press the <Del> key.   For Windows 95 or NT 4.0 system, select "Start" - "Settings" - "Taskbar", click the "Start Menu Programs" tab, click "Remove", select the "WinSpeech" folder and press "Remove".

3. Remove the following nodes from the Windows Registry:

HKEY_USERS\.Default\WinSpeech 3.0N

HKEY_LOCAL_MACHINE\SOFTWARE\Microsoft\Windows\CurrentVersion\Uninstall\WinSpeech 3.0N

Please consult Windows Help manual on how to edit the Registry.

APPENDIX E   Order information

There are two different versions of WinSpeech - 3.0 and 3.0N.   They are functionally identical but designed for different platforms.   The WinSpeech 3.0 is designed for 16-bit Windows (Windows 3.1x) and it works on Windows 95, but not on Windows NT.   The WinSpeech 3.0N is designed for 32-bit Windows (Windows 95 and NT), and it does not work on Windows 3.1x.

To order a registered copy of the WinSpeech 3.0 or WinSpeech 3.0N, you can use one of these methods.

(1). Send a $40 check or money order (the currency must be in US dollars) paid to PC WholeWare, together with the order form and mail them to:

PC WholeWare
33 Justin Street
Lexington, MA 02173
U.S.A.

(2). Order by phone, fax, mail or from the Internet by using a credit card (VISA/MASTER/AMEX/DISCOVER).   This is an ordering service provided by PsL.   The reference number of WinSpeech in PsL is #14825.   Please indicate the version number (3.0 or 3.0N) when ordering.

By Phone: 800-242-4775 or 713-524-6394
By Fax: 713-524-6398
By Mail: PsL, P.O.Box 35705, Houston, TX 77235-5705
From Internet: go to "http://users.aol.com/wholeware" and follow the instructions.

(Please use the order form for fax or mail orders.)

(3). Order from CompuServe.   Type "GO SWREG" from CompuServe and follow the instructions.   The registration ID:

WinSpeech 3.0   (for Windows 3.1x) -   #10058.
WinSpeech 3.0N (for Windows 95/NT)   -   #14212.

Your order will be shipped to you by first class mail immediately after it is received.

(an $8 convenience charge applies when ordering using method (2) or (3))

WinSpeech Order Form

Name _____

Address _____

_____

_____

_____

Phone _____

E-mail _____

WinSpeech 3.0   (for Windows 3.1x)
$48 ($40 if order from PC WholeWare)   X   _____ (Quantity)

WinSpeech 3.0N (for Windows 95/NT)
$48 ($40 if order from PC WholeWare)   X   _____ (Quantity)

Total: $ _____

Credit Card information (for credit card order only)

Type of card: VISA ____   MC ____   AMEX ____   Discover ____

Card Number _____   Exp. date _____

Signature _____

APPENDIX F   Contacting Information

Postal Address:

        PC WholeWare
        33 Justin Street
        Lexington, MA 02173
        U.S.A.

Telephone:

        617-863-2546

Web URL:

        http://users.aol.com/WholeWare

E-mail:

        wholeware@aol.com
        103671.2141@compuserve.com