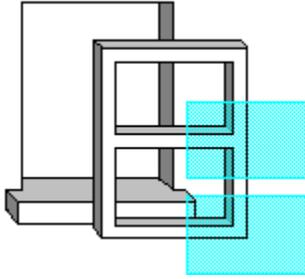


# ***Windows Disassembler 1.5***

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## **Introduction**

*Windows Disassembler* disassembles Windows 3.x programs and Dynamic Link Libraries. It displays the assembly language source code of a given executable within a window and allows one to create the assembly language source code files if desired.

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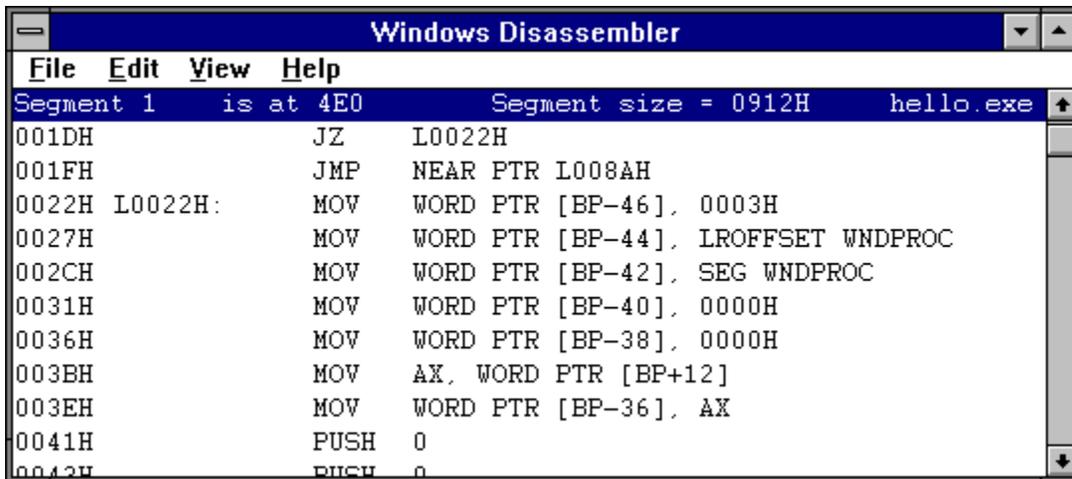
## The Display Window

The display window displays the assembly language code of a segment from the program which you have opened, excluding certain directives (i.e., **TITLE**, **.MODEL**, **.286**, **PROC**, etc.). At the top of the window is the following information:

- Segment number**      The chronological number of the current segment. (This number is based on the order in which segments are placed in the executable file)
- Segment offset**      A hexadecimal value equal to the segment's offset relative to the beginning of the file
- Segment size**      A hexadecimal value equal to the number of bytes in the segment.

Bytes in the program can be changed from data declarations to instructions and vice versa with the Set Bytes command. The offset of each instruction can be displayed with the Address Offsets command. Only one segment can be displayed at a time. The **S**egments command allows you to choose which segment you want displayed. To create an assembly language file, use the Save Text As command. The **F**ar **C**all **N**ames command toggles between showing the Windows API function call names and the actual relocation bytes.

## The Anatomy of *Windows Disassembler's* Interface



The screenshot shows the 'Windows Disassembler' window with a menu bar (File, Edit, View, Help) and a list of assembly instructions. The status bar at the top indicates 'Segment 1 is at 4E0' and 'Segment size = 0912H' for the file 'hello.exe'. The instructions are as follows:

Address	Instruction
001DH	JZ L0022H
001FH	JMP NEAR PTR L008AH
0022H L0022H:	MOV WORD PTR [BP-46], 0003H
0027H	MOV WORD PTR [BP-44], LROFFSET WNDPROC
002CH	MOV WORD PTR [BP-42], SEG WNDPROC
0031H	MOV WORD PTR [BP-40], 0000H
0036H	MOV WORD PTR [BP-38], 0000H
003BH	MOV AX, WORD PTR [BP+12]
003EH	MOV WORD PTR [BP-36], AX
0041H	PUSH 0
0042H	PUSH 0

(Click on the "menu" for information on a desired command.)

## Creating and Assembling Assembly Language Files

You can create an assembly language file for the program that you've opened by using the Save Text As command. Note, however, that in some instances the source code created by *Windows Disassembler* cannot be reassembled without some editing. Also, you will need the resource files (which can be extracted using Borland's *Resource Workshop*), and a definition file (which can be created with the aid of a program file header utility such as *TDUMP* or *EXEHDR*). You will then need to make the following alterations:

1. Windows Disassembler can distinguish **SMALL** programs only. All other types of programs are assumed to have medium models. Change the model type in the **.MODEL** directive to the correct type if it is neither small or medium.
2. Make the data segment accessible to all modules via include files.

## File Commands

**Open** Opens a Windows executable file or dynamic link library. The default extension is **.exe**.

**Save Text As** Creates an assembly language source code file.

### OPTIONS:

If the **Create Separate Files For Each Segment** option is checked each file's name will have an integer appended to the base name of the file equal to the segment's number

If the **Create One File Containing All Segments** option is checked one file will be created containing the whole program. Select this option only if the program is relatively small, i.e., has only two or three segments. The default file name extension is **.asm**.

If **Save Current Segment Only** is checked, a file is created containing only the segment that is currently being displayed in the window. The default file name extension is **.asm**. This option preserves the byte settings made for the segment.

NOTES: If a file having the specified name already exists, it will automatically be overwritten. *Saving files erases all byte settings* (see [Set Bytes](#)) made in the current segment unless you select the **Save Current Segment Only** option.

## Edit Commands

**Set Bytes** Controls the way *Windows Disassembler* translates a (set of) byte(s). If **Byte Data** is selected, all bytes within the specified range are translated as byte declarations. If **Instruction** is selected, all bytes within the given range are translated as machine instructions. The **Labeled Instruction** option allows you to give labels to all instructions within the specified range (note that byte declarations are automatically given labels). Hexadecimal numbers are required for the range values.

## **View Commands**

<b>Go To</b>	Goes to a specified address in the current segment (requires a hexadecimal value).
<b>Address Offsets</b>	Shows the offset of each instruction in the far left-hand column.
<b>Far Call Names</b>	Toggles between showing the Windows function call names and the actual relocation bytes.
<b>Segment</b>	Goes to the segment that you specify. Note that all byte format changes which you have made will be lost if you change segments. You can save your byte settings in an assembly language file before you change segments but you cannot retrieve the changes again (except by resetting the bytes manually).
<b>Font</b>	Allows the selection of the desired font in which the text in the window is to be written.

## **Keys**

**PAGE UP KEY**                      Scrolls the window up one page.

**PAGE DOWN KEY**                Scrolls the window down one page.

**UP ARROW KEY**                    Scrolls the window up one line.

**DOWN ARROW KEY**                Scrolls the window down one line.

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Status bar: displays segment number, offset, size, and file name.



