WICE-8052 USER'S MANUAL For Window 9x, N



LEAP ELECTRONIC



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Help menu

The following options are available on the Help Dropdown menu

1. About WICE-8052 :

A dialog is showing LEAP ELECTRONIC. information.

2. About :

When you choose the About command from the Help menu, a dialog box appears, showing copyright and version information.

3. User Guide:

Help you to get into this program.

Support

This WICE-8052 software supports WIDE Version 2.00.51 and provides for source debug. Be make sure the file that you want to open has got those file format : Debug Control File, Symbols Table, Source Files and Hex(basically requier), before you use source debug.

When you execute link.exe, entre input file name, output file name(if you want to differentiate from input file.) and options flag C. You would get outfilename.dcf, outfilename.sym, and outfilename.hex without any linking errors.

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Other Menu

The following options are available on the Other Dropdown menu

1. CPU type selection : Select the CPU types, default is Autodetect.



2. Slow Run Speed :

The "Set Slow Run Timer" Option allows you set interval of Slow Run Timer for 150ms upto 5000ms.



3. Tile:

Tile MDI Windows in screen.

4. Cascade:

All MDI Windows in screen will be cascaded.

5. Arrange Icons:

All MDI Windows will be minimized.

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Instruction

Thank you for using the WICE-8052 designed by LEAP ELECTRONIC.We hope that you find the WICE-8052 meets all of your development needs.

File menu
View menu
Project menu
Run menu
Debug menu
Window menu
Other Menu
Help menu

The WICE-8052 Windows software consist Hardware Control. When you do any development, the WICE-8052 will offer you best quality program support. By the way, it is not possible to run this software without WICE-8052.

The WICE-8052 is designed according to users' point of view and full of user-friendly. However, if there is any of your estimable comments, please feel free to contact us at Tel 886-2-2991860 or Fax 886-2-29990015 or e-mail rd@leap.com.tw.

Again thank you for using WICE-8052 and other high-quality LEAP products.

Sincerely yours

Yvonne Yu (the product programmer)

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File menu

The following options are available on the File Drop-down menu

1. Load :

Both of them will be disassembled and load into WICE-8052 at the same time.

-Hex Files : It would load hex file into WICE-8052 and link with symbol tables ,debug control and source files. If those three files couldn't be found, disassembled form opens only.

-Binary Files : It would load binary file into WICE-8052.

-Debug Control Files, Symbol Table Files: Those formats of files are produced form AD2500 compiler. If you hope to run this system with symbols, you have to have those files.

2. Save :

Save current binary code or hex code. You can choose the range that you want to save it by entering the start and end address.

| ∭ Save As File Name : | Browse |
|--|---|
| File Type © Binary Code © Hex Code © Text | Start Address : 0000 End Address : 0000 |
| | OK Cancel |

3. Exit:

Exit the WICE-8052 software.

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4. Trace Range :

Allow you to key in start and end addresses from the dialog.

| 🕼 Trace Range | _ 🗆 × |
|-----------------|--------|
| Start Address : | 0000 |
| End Address : | 24 |
| OK | Cancel |

5. Trace Buffer :

This frame shows the listing of the buffer traced.

| | Address | Hexcode | Instruction | |
|----|---------|---------|----------------------|--|
| 1 | 0000 | 02000E | LJMP 000EH | |
| 2 | 000E | 758901 | MOV TMOD,#01H | |
| 3 | 0011 | 758C3C | MOV TH0,#3CH | |
| 4 | 0014 | 758AB0 | MOV TL0,#B0H | |
| 5 | 0017 | D28C | SETB TRO | |
| 6 | 0019 | 75A882 | MOV IE,#82H | |
| 7 | 001C | 753014 | MOV SecondCount,#14H | |
| 8 | 001F | 93 | MOVC A,@A+DPTR | |
| 9 | 0020 | E0 | MOVX A,@DPTR | |
| 10 | 0021 | 7590FE | MOV P1,#FEH | |
| 11 | 0024 | 0124 | AJMP 0024H | |

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Window menu

The following options are available on the Window Dropdown menu

1. Internal Memory :

This will show the current contents of the 256 bytes INTER-NAL memory. You can click mouse to toggle the edit mode ON/ OFF. When the edit mode is ON, the contents can be modified, otherwise, the contents are viewed only.

| Addr | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | A | В | C | D | Ε | F | ASCII |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------------------|
| 0000 | 00 | 04 | E3 | 02 | FE | 80 | EF | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 0 p 0 i |
| 0010 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | |
| 0020 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 18 | 7E | 9A | 80 | FA | 09 | 0-3060 |
| 0030 | 0D | 75 | 88 | E7 | 21 | 1C | λ8 | 3A | BF | ٨A | 83 | 42 | Dß | 85 | 8C | ٨A | Du101012*7800* |
| 0040 | 0E | 89 | E2 | 04 | 50 | C6 | 02 | 02 | 3D | E8 | A0 | 62 | 81 | 86 | 68 | 6C | 0%4 0P #00= è 0b 0† h1 |
| 0050 | 4E | A1 | 55 | 04 | 7D | A9 | FD | 38 | 7A | CC | B7 | 65 | 22 | 8B | 9B | 5A | N; UO) ©ý>zÌ·∗ " ⇔ Z |
| 0060 | 70 | 07 | 0F | A0 | 26 | 87 | 01 | C5 | F8 | 18 | B4 | 90 | 80 | 19 | E1 | A8 | 00 @‡0%40,0000. |
| 0070 | 30 | 9D | 2F | 46 | 83 | 23 | 29 | 24 | DD | 48 | SE | E2 | 6D | E2 | FD | 6C | 0 D/ F/#)\$ÝJ^&m&vl |

2. External Memory :

This frame shows the current contents of the 64k EXTERNAL memory. You can click mouse to toggle the edit mode ON/OFF. When the edit mode is ON, the contents can be modified, otherwise, the contents are viewed only.

| J]? Ext | emal | Mer | uony | | | | | | | | | | | | | | |
|---------|------|-----|------|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------------------------|
| Addr | 0 | | 2 | 3 | 4 | 5 | 6 | | 8 | 9 | λ | В | С | | E | F | AS CI I |
| 0000 | 55 | BC | 55 | E2 | 11 | EO | 45 | λA | 1D | FF | 54 | 74 | 55 | B3 | 55 | D9 | UNU4 DA E' DYTI U' UÙ |
| 0010 | 95 | 51 | 85 | EA | 50 | D9 | 05 | C1 | 55 | F8 | 15 | 88 | D5 | 80 | 50 | F3 | Qé PÚDÁUs D'ÕDPó |
| 0020 | 55 | ΒA | 55 | 9C | 5D | 91 | 44 | ΒA | 55 | 8B | D7 | BO | 15 | 71 | 11 | 2F | U* Uœ] * D* U< ×* Dq D/ |
| 0030 | 65 | FO | 5D | E2 | 15 | DA | 45 | C3 | 55 | СВ | 15 | A2 | 55 | F8 | 55 | B3 | e 8] & DÚE ÂUÊ Dự Un U' |
| 0040 | 15 | 99 | 04 | λ6 | 55 | ٨A | C4 | 72 | 81 | DB | 14 | 92 | 54 | СВ | 54 | 48 | απα; Ο' Α΄ ΟŬΟ' ΤΕΤΚ |
| 0050 | 45 | 34 | 14 | BE | 95 | BA | 55 | 3F | 75 | 72 | 15 | AE | 55 | 99 | 45 | E8 | E4 D%+ * U? ur D⊕U⊐Eê |
| 0060 | 45 | BC | 05 | B8 | 45 | A2 | 55 | 62 | 54 | 6C | 15 | A8 | 51 | 7A | 51 | B7 | E10, E# Ub T10 QzQ- |
| 0070 | 15 | 5B | 74 | DO | 55 | DC | 54 | A8 | 41 | B3 | 40 | ΕA | 55 | DA | 54 | BB | u[: DUUT' A' @i UÚT» 🖕 |

3. Code Memory :

This frame shows the current contents of the 64k INTERNAL memory. You can click mouse to toggle the edit mode ON/OFF. When the edit mode is ON, the contents can be modified, otherwise, the contents are viewed only.

| ditr | 0 | 1 | 2 | 3 | 4 | 5 | 6 | 1 | 8 | 9 | à. | B | C | D | B | F | ASCII |
|------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------------------------------|
| 100 | 02 | 00 | 0E | FF | 02 | 00 | 26 | 75 | 39 | 0 0999999990 & x %. |
| 010 | 01 | 75 | 8C | зC | 75 | 88 | BО | D2 | 8C | 75 | ٨S | 82 | 75 | 30 | 14 | 93 | □ u Œ< u Š * Ò Œu` , u D □ * |
| 120 | 30 | 75 | 90 | FE | 01 | 24 | CD | ED | 75 | 9C | зc | 75 | 8A | BO | D5 | 30 | àu □þ□\$Àùu Œ <uаö0< td=""></uаö0<> |
| 30 | 80 | 75 | 30 | 14 | ВS | 90 | 23 | F5 | 90 | DO | EO | 32 | FF | FF | FF | FF | 0 1 0 0 1 0 # 0 0 0 0 1 2 9 9 9 9 |
| 340 | FF | ***** |
| 150 | FF | ***** |
| 60 | FF | 9999999999999999999 |
| | | | | | | | | | | | | | | | | | al I al a |

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View menu

1. Assembly Mode :

Display the assembly form.

| 0 | | iiiii {} G | E B C Q B B (% (% (? PC)000) | er : [0000 |
|-------|---------|--------------|--------------------------------|------------|
| 0000 | COODCE | LINP | 000EH | |
| 0003 | FF | MOV. | R7.A | |
| 0004 | LL . | MOV | R/J,A | |
| 0005 | FF | MOV | 87A | |
| 0006 | FF | MOV | R7A | |
| 0807 | LL . | MOV | R/J,A | |
| 8080 | FT | MOV | RTA | |
| 0009 | FF | MOV | R7.A | |
| 10004 | FF | MOV | R/T,A | |
| 0008 | 020826 | LIMP | 0026H | |
| 000E | 758901 | MOV | TM00.801H | |
| 0011 | 7590.30 | MOV | THOREON | |
| 0014 | 750480 | MOV | TLO/EDH | |
| 0817 | 0.280 | 5E18 | 150 | |
| 0019 | 754682 | MOV | E.#XH | |
| OULC | 753014 | MOV | SecondCount,#14H | |
| 081F | 93 | MOVC | A.BA-OFTR | |
| 0020 | E0 | MONC | A.BOPTR | |
| 0821 | 7520FE | MOV | P1, MTEH | |
| 0824 | 0124 | AMP | 0034H | |
| 8500 | COEB | PUSH | ACC | |
| 0828 | 750030 | MOV | THORON | |
| 0028 | 759480 | MOV | TLOJECH | |
| 3580 | 053808 | DUNZ | 30H.0039H | |
| 0020 | 752014 | MOV | SecondCount #14H | |

2.Source Mode :

Display the source form.

| | | | - | | - | |
|----|------|-----|------------------------|-------|---------------------------------------|----------------|
| | | | | | (C-MDC5786yTee#Taux0.em) | 11 K K |
| H | Bh | Inv | (Creater of the second | * 2 | na Deltop Manlow Other Belp | X |
| | 0 | ы | | 11 | 8(.) B = B @ Ø % % (? PC (000) | Address : 0000 |
| - | 1 | | tynbol | | | - |
| | 5 | | fed fot | | | |
| | 2 | | debug | | | |
| | 4 | | Second | Cour | r equ 30h | |
| | 5 | | | | | |
| 0 | 100 | | | ang . | un Stat | |
| | 1 | | | 81Ø | 04 | |
| | ŝ | | | | Tandhri | |
| | 11 | | | ·* | | |
| | 11 | | Stat | | | |
| | 12 | | | | | |
| | 12 | | | Time | 0 Mode 1 5000us interrupt | |
| | 14 | | | | | |
| | 15 | | | nev | trod#0000007b | |
| | 15 | | | nev | #d, #- (02536-58000) | |
| | 17 | | | NOR. | 40.2-(85538-50000) | |
| | 18 | | | (HD) | | |
| | 15 | | | nev | in,#10000000b yenable TimerO interrut | |
| | 28 | | | NON | SecondCount.#1000/50 | |
| | 51 | | | neve | | |
| | 22 | | | neva | a@d# | |
| | 23 | | More | | a1.201111110b | |
| | NSEN | | | 1964 | 91,011111106 | |
| | 3 | | Waitin | | | - |
| e) | 2 | | net | | | - |
| 1 | - | _ | _ | _ | | |

3.Browse From/To:

This function disassembles hex code and starts from the address that you edited.

| Browse From | | |
|-------------------|----------------------|--|
| Browse from addr | ess (Disassembly): 🚺 | |
| Browse to Line (S | ource): 6 | |
| | OK Cancel | |

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4.Variable:

List that you would like to see the variation of variables or arguments. Double clicks to open another window, and chose a variable. It will appear in variable list after you click ok button. By the way, press Delete to delete the variable with highlight.

| Expression : Second | |
|---------------------|-----------------------------|
| Туре | |
| C Character | C Hexadecimal |
| C Integer | 🕫 Default |
| Memory | |
| C Code Memory | C Internal Memory |
| C External Memory | Default |
| OK | Cancel Modify |
| able | - |
| Count Dh | |
| | |
| | |

Project menu

The following options are available on the Project Drop-down menu

1.New Project :

First at all, choice which compiler tool that you normally use, and then system will create a new project file for you.



NOTE : In this version of WICE-8052 software, support AD2500 Compiler ver. 2.00.50 for windows only.

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An dialog will appear and contain break points that have been set on assembly window after click this function. Enabled and disabled of break points also are available even delete option. Users can set break points through the Address Edit window on the dialog. The set breakpoint addresses and dissassembler program are displayed in red color. The removed breakpoint location get back the former color.

| | 1115 Fects 08 020026 06 250901 11 750230 11 750230 11 75042 11 75002 11 75002 10 75012 10 75012 10 75014 15 90 20 ED 21 7509FE | LIMP MOV MOV SET8 MOV MOV MOV MOV | 000H 000H 1000H 1000H 100H | E Dation | PC 000 |
|---|--|--|--|-----------------------------|-----------------|
| | 08 020026 06 756900 11 750CDC 14 759A80 17 D28C 11 75A082 10 753014 15 90 20 ED 21 7500FE | MOV MOV MOV SET8 MOV MOV MOV MOV MOV | THEOLEDH THEOLEDH TUCREOH TEPO ELINET Second Count ENH A BA-OPTR A REACTIN | A Breidfriat Addese : | P 0020 |
| | 06 259901 11 250C3C 14 259488 17 D38C 11 259488 17 D38C 11 259488 17 D38C 11 259488 17 D38C 11 259488 10 25968 10 259688 10 25968 10 | MOV MOV MOV SET8 MOV MOV MOV MOV MOV | THEOLEDH THEOLEDH TUCREOH TEPO ELINET Second Count ENH A BA-OPTR A REACTIN | BreddFrant Addesse : | P 0020 |
| | 11 750C3C 14 759481 17 D.28C 11 754052 10 753814 17 90 20 ED 21 7599FE | MDV MDV SET8 MDV MDVC MDVC MDVC | THOROH TLOJEROH TERO SicordCoultTitH A.BA-OFTR A.BCOTTR | BreddFrant Addesse : | P 0020 |
| | 14 759481 17 D.28C 11 754052 10 753814 17 90 20 ED 21 7559FE | MOV SET8 MOV MOV MOVC MOVC | TLOJEOH TRO ELROH SecondCourl.814H ALBA-DPTR ALBCOTR | BreddFrant Addesse : | P 0020 |
| | 17 D28C 13 754082 10 753814 16 90 20 ED 21 7599FE | SET8 MOV MOVC MOVC MOV | TRO IEUROH SecondCount/\$14H AUBAHOPTR AUBAPTR | BreddFrant Addesse : | P 0020 |
| | 13 754082 10 753814 1F 80 20 E0 21 7599FE | MOV MOV MOVC MOX | E.RCH SecondCount.ENH A.(BA-OPTR A.(BOPTR | BreddFrant Addesse : | 2000 |
| 001 001 001 002 002 002 002 002 002 002 | 10 753014 1F 80 20 ED 21 7590FE | MOV MOVC MOX | SecondCount_\$14H A_BA-0PTR A_B0PTR | Address : | 0000 |
| 001 002 002 | 1F 80 20 ED 21 7990FE | MOVC MOX | A/BA-0PTR A/BOA | | 0000 |
| 000 | 20 ED 21 7550FE | MDAX MOV | AGOPTR | | - P2 000E |
| 003 | 21 7550FE | MOV | | 0000 | |
| 002 | | | | | |
| 007 | | | | | |
| | | AJMP | 0024H | | |
| | | DV PCM | AFF | | × |
| | | | | 21/22/15 | |
| 12 | | iner 0 Mode 1,5 | | 21222761 | |
| 54 | | | | | × |
| 0 KG | | | | | |
| 19 | | av 180,85 (652) | 36-58080 | OK | Debte Debte All |
| 37 | | | | | |
| 18 | | | | | |
| 12 | | | | | |
| 20 | | | unt,#1000/50 | | |
| 21 | | ne AGA-O | PTB | | |
| • 22 | | 42.04 | | | |
| 23 | Mairc | | | | |
| 24 | | ry 01,811111 | 11105 | - | |

3. Registers :



This function contains all Special Function Registers in WICE-8052. Double clicking by mouse can modify the contents of the individual field.

- -All : Include all normal registers.
- -Ports : Include all ports registers.
- -General : Include all general registers.
- -Serial : Include all serial registers.
- -Timer/Counter : Include all Timer/Counter registers.

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9. Reset :

This function is used to finish "System Reset" of the WICE-8052:

- 1) Initialize the program counter to 0, i.e. execution will subsequently begin from address 0000.
- 2) Initialize SFRs to particular values.
- 3) The WICE-8052 send the "Reset" signal to reset the hardware ports.
- 4) All breakpoints would not be clear.
- 5) Restore main source file.
- 10. Reset and Go :

This function will reset the WICE-8052, run the currently loaded program then until interrupted by users manually click "Stop" button.

11. Stop :

The Stop option will cause the WICE-8052 to stop running the currently program. After a program has been stopped, the Run option selection will subsequently resumed.

Debug menu

The following options are available on the Debug Drop-down menu

1. Change program counter :

After you choose this function, there is an edit window where you can enter new program counter that you want to run it from. Otherwise the program counter in the WICE-8052 will display in this window.

2. Breakpoint :

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2.Open Project :

Open a project file that you have created before. And then, it will open an Application for you to add source files automatically.

3.Add Source Files :

To add files that you would like to involve in this project and compile with. However, you could take files off from this project.

| 🕂 Add Source Files | _ 🗆 > |
|------------------------|--------|
| Files in Project : | |
| C:ADC511MyTest(5-2.asm | Add |
| | Delete |
| | OK |
| | Cancel |

4.Options :

Set your compiler path and some information about the project. Also, you would select an editor tool that you normally use from this function.

| R Opinot X | Assemble Flag Compiler Path |
|---|--|
| Assentor rag Compary Path | Assemble Fing Computer Fain |
| Assembly Options : -q -d | Edit Tool: c:/windows/write.exe Browse |
| Compiler Options : - c | Argument: CADC51WyTestS-2.asm ToolChain Path : cladc51bin |
| Linker Options : msp, high level, Intel Hex | Assembly Path: chade51bin |
| File Type : C Assembly C C Files | C Compiler Path : Clade51/bin |
| rie i ype : (* Assembly C ries | Linker Path : c:balc510in |
| | Include Path : clude51include |
| | Library Path : Clade514b |
| OK Cancel | OK Cased |
| OR. Cancel | OK Canon |

5.Edit:

Open an editor tool that you normally use with a file. System will compile this project automatically after you close this editor tool.

6.Compile:

Compile the project with your compiler tool.

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Run menu

The following options are available on the Run Drop-down menu

1. Go(Full speed) :

Run the currently loaded program at the instructive point to by program counter.

Once program has been executed, it will continue until interrupted by users manually click "Stop" button.

2. Run :

Run the currently loaded program at the instructive point to by program counter.

Once program has been executed, it will continue until interrupted by reach a break point. However, if users didn't set any break points, this function would be as same as Go(Full speed).

3. Run Until :

If you select this function, there is an edit window where you should enter the stop address.

After press Enter, WICE-8052 will execute current loaded program, and stop at the yellow highlight's location on assembly window.

Note: If the Breakpoint or user manual interrupt, Run Until will stop.

4.Run To Line : (For Source only)

If you select this function, there is an edit window where you should enter the stop line in source form. After press Enter, WICE-8052 will execute current loaded program, and stop at the start address of this line of source with yellow highlight's location on assembly window. This function appears only when Source Form exist.

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5. Trace Into :

For Assembly:

When you select this function, it will instruct the WICE-8052 to execute only on "single step" way. All Registers and Data Memory on the screen will be immediately update to software if there any changes caused the execution of the single instruction. This command will go into sub-procedure instructions example for "ACALL" and "LCALL".

For Source:

When you select this function, it will instruct the WICE-8052 to execute only on "one source line" way. The meaning is the end address of this soure line is a break point and has been set to WICE-8052. Run loaded program until interrupted by reach this break point.

6. Step Over :

For Assembly/Source:

If you click this function, it will instruct the WICE-8052 to execute only on "single step" way. This function is same as "Step Into" except instructions like "ACALL" and "LCALL", Step Over will not directly go into Sub-procedure and execute. Besides, users set break points in Sub-Procedure.

7. Slow Trace Into :

Automatically execute the current execution program slowly and enter sub-program.

Note:Only run this function in Assembly Form.

8. Slow Step Over :

Automatically execute the current execution program slowly and directly execute sub program.

Note: Only run this function in Assembly Form.

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