

Apple 1 WOZ Integer Basic Disassembly (Partial)

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E000-    4C B0 E2    JMP    $E2B0
E003-    AD 11 D0    LDA    $D011
E006-    10 FB      BPL    $E003
E008-    AD 10 D0    LDA    $D010
E00B-    60          RTS
E00C-    8A          TXA
E00D-    29 20      AND    #$20
E00F-    F0 23      BEQ    $E034
E011-    A9 A0      LDA    #$A0
E013-    85 E4      STA    $E4
E015-    4C C9 E3    JMP    $E3C9
E018-    A9 20      LDA    #$20
E01A-    C5 24      CMP    $24
E01C-    B0 0C      BCS    $E02A
E01E-    A9 8D      LDA    #$8D
E020-    A0 07      LDY    #$07
E022-    20 C9 E3    JSR    $E3C9
E025-    A9 A0      LDA    #$A0
E027-    88          DEY
E028-    D0 F8      BNE    $E022
E027-    88          DEY
E028-    D0 F8      BNE    $E022
E02A-    A0 00      LDY    #$00
E02C-    B1 E2      LDA    ($E2),Y
E02E-    E6 E2      INC    $E2
E030-    D0 02      BNE    $E034
E032-    E6 E3      INC    $E3
E034-    60          RTS
E035-    20 15 E7    JSR    $E715
E038-    20 76 E5    JSR    $E576
E03B-    A5 E2      LDA    $E2
E03D-    C5 E6      CMP    $E6
E03F-    A5 E3      LDA    $E3
E041-    E5 E7      SBC    $E7
E043-    B0 EF      BCS    $E034
E045-    20 6D E0    JSR    $E06D
E048-    4C 3B E0    JMP    $E03B
E04B-    A5 CA      LDA    $CA
E04D-    85 E2      STA    $E2
E04F-    A5 CB      LDA    $CB
E051-    85 E3      STA    $E3
E053-    A5 4C      LDA    $4C
E055-    85 E6      STA    $E6
E057-    A5 4D      LDA    $4D

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| | | | |
|-------|----------|-----|--------|
| E059- | 85 E7 | STA | \$E7 |
| E05B- | D0 DE | BNE | \$E03B |
| E05D- | 20 15 E7 | JSR | \$E715 |
| E060- | 20 6D E5 | JSR | \$E56D |
| E063- | A5 E4 | LDA | \$E4 |
| E065- | 85 E2 | STA | \$E2 |
| E067- | A5 E5 | LDA | \$E5 |
| E069- | 85 E3 | STA | \$E3 |
| E06B- | B0 C7 | BCS | \$E034 |
| E06D- | 86 D8 | STX | \$D8 |
| E06F- | A9 A0 | LDA | #\$A0 |
| E071- | 85 FA | STA | \$FA |
| E073- | 20 2A E0 | JSR | \$E02A |
| E076- | 98 | TYA | |
| E077- | 85 E4 | STA | \$E4 |
| E079- | 20 2A E0 | JSR | \$E02A |
| E076- | 98 | TYA | |
| E077- | 85 E4 | STA | \$E4 |
| E079- | 20 2A E0 | JSR | \$E02A |
| E07C- | AA | TAX | |
| E07D- | 20 2A E0 | JSR | \$E02A |
| E080- | 20 1B E5 | JSR | \$E51B |
| E083- | 20 18 E0 | JSR | \$E018 |
| E086- | 84 FA | STY | \$FA |
| E088- | AA | TAX | |
| E089- | 10 18 | BPL | \$E0A3 |
| E08B- | 0A | ASL | |
| E08C- | 10 E9 | BPL | \$E077 |
| E08E- | A5 E4 | LDA | \$E4 |
| E090- | D0 03 | BNE | \$E095 |
| E092- | 20 11 E0 | JSR | \$E011 |
| E095- | 8A | TXA | |
| E096- | 20 C9 E3 | JSR | \$E3C9 |
| E099- | A9 25 | LDA | #\$25 |
| E09B- | 20 1A E0 | JSR | \$E01A |
| E09E- | AA | TAX | |
| E09F- | 30 F5 | BMI | \$E096 |
| E0A1- | 85 E4 | STA | \$E4 |
| E0A3- | C9 01 | CMP | #\$01 |
| E0A5- | D0 05 | BNE | \$E0AC |
| E0A7- | A6 D8 | LDX | \$D8 |
| E0A9- | 4C CD E3 | JMP | \$E3CD |
| E0AC- | 48 | PHA | |
| E0AD- | 84 CE | STY | \$CE |
| E0AF- | A2 ED | LDX | #\$ED |
| E0B1- | 86 CF | STX | \$CF |
| E0B3- | C9 51 | CMP | #\$51 |

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|-------|----------|-----|-----------|
| E0B5- | 90 04 | BCC | \$E0BB |
| E0B7- | C6 CF | DEC | \$CF |
| E0B9- | E9 50 | SBC | #\$50 |
| E0BB- | 48 | PHA | |
| E0BC- | B1 CE | LDA | (\$CE), Y |
| E0BE- | AA | TAX | |
| E0BF- | 88 | DEY | |
| E0C0- | B1 CE | LDA | (\$CE), Y |
| E0C2- | 10 FA | BPL | \$E0BE |
| E0C4- | E0 C0 | CPX | #\$C0 |
| E0C2- | 10 FA | BPL | \$E0BE |
| E0C4- | E0 C0 | CPX | #\$C0 |
| E0C6- | B0 04 | BCS | \$E0CC |
| E0C8- | E0 00 | CPX | #\$00 |
| E0CA- | 30 F2 | BMI | \$E0BE |
| E0CC- | AA | TAX | |
| E0CD- | 68 | PLA | |
| E0CE- | E9 01 | SBC | #\$01 |
| E0D0- | D0 E9 | BNE | \$E0BB |
| E0D2- | 24 E4 | BIT | \$E4 |
| E0D4- | 30 03 | BMI | \$E0D9 |
| E0D6- | 20 F8 EF | JSR | \$EFF8 |
| E0D9- | B1 CE | LDA | (\$CE), Y |
| E0DB- | 10 10 | BPL | \$E0ED |
| E0DD- | AA | TAX | |
| E0DE- | 29 3F | AND | #\$3F |
| E0E0- | 85 E4 | STA | \$E4 |
| E0E2- | 18 | CLC | |
| E0E3- | 69 A0 | ADC | #\$A0 |
| E0E5- | 20 C9 E3 | JSR | \$E3C9 |
| E0E8- | 88 | DEY | |

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|-------|----------|-----|--------|
| EE3E- | 20 34 EE | JSR | \$EE34 |
| EE41- | A4 C8 | LDY | \$C8 |
| EE43- | C9 30 | CMP | #\$30 |
| EE45- | B0 21 | BCS | \$EE68 |
| EE47- | C0 28 | CPY | #\$28 |
| EE49- | B0 1D | BCS | \$EE68 |
| EE4B- | 60 | RTS | |
| EE4C- | EA | NOP | |
| EE4D- | EA | NOP | |
| EE4E- | 20 34 EE | JSR | \$EE34 |
| EE51- | 60 | RTS | |
| EE52- | EA | NOP | |
| EE53- | 8A | TXA | |

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|-------|----------|-----|----------|
| EE54- | A2 01 | LDX | #\$01 |
| EE56- | B4 CE | LDY | \$CE,X |
| EE58- | 94 4C | STY | \$4C,X |
| EE5A- | B4 48 | LDY | \$48,X |
| EE5C- | 94 CA | STY | \$CA,X |
| EE5E- | CA | DEX | |
| EE5F- | F0 F5 | BEQ | \$EE56 |
| EE61- | AA | TAX | |
| EE62- | 60 | RTS | |
| EE63- | A0 77 | LDY | #\$77 |
| EE65- | 4C E0 E3 | JMP | \$E3E0 |
| EE68- | A0 7B | LDY | #\$7B |
| EE6A- | D0 F9 | BNE | \$EE65 |
| EE6C- | 20 54 E2 | JSR | \$E254 |
| EE6F- | A5 DA | LDA | \$DA |
| EE71- | D0 07 | BNE | \$EE7A |
| EE73- | A5 DB | LDA | \$DB |
| EE75- | D0 03 | BNE | \$EE7A |
| EE77- | 4C 7E E7 | JMP | \$E77E |
| EE7A- | 06 CE | ASL | \$CE |
| EE7C- | 26 CF | ROL | \$CF |
| EE7E- | 26 E6 | ROL | \$E6 |
| EE80- | 26 E7 | ROL | \$E7 |
| EE82- | A5 E6 | LDA | \$E6 |
| EE84- | C5 DA | CMP | \$DA |
| EE86- | A5 E7 | LDA | \$E7 |
| EE86- | A5 E7 | LDA | \$E7 |
| EE88- | E5 DB | SBC | \$DB |
| EE8A- | 90 0A | BCC | \$EE96 |
| EE8C- | 85 E7 | STA | \$E7 |
| EE8E- | A5 E6 | LDA | \$E6 |
| EE90- | E5 DA | SBC | \$DA |
| EE92- | 85 E6 | STA | \$E6 |
| EE94- | E6 CE | INC | \$CE |
| EE96- | 88 | DEY | |
| EE97- | D0 E1 | BNE | \$EE7A |
| EE99- | 60 | RTS | |
| EE9A- | FF | ??? | |
| EE9B- | FF | ??? | |
| EE9C- | FF | ??? | |
| EE9D- | FF | ??? | |
| EE9E- | FF | ??? | |
| EE9F- | FF | ??? | |
| EEA0- | 20 15 E7 | JSR | \$E715 |
| EEA3- | 6C CE 00 | JMP | (\$00CE) |
| EEA6- | A5 4C | LDA | \$4C |
| EEA8- | D0 02 | BNE | \$EEAC |

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|-------|----------|-----|-----------|
| EEAA- | C6 4D | DEC | \$4D |
| EEAC- | C6 4C | DEC | \$4C |
| EEAE- | A5 48 | LDA | \$48 |
| EEB0- | D0 02 | BNE | \$EEB4 |
| EEB2- | C6 49 | DEC | \$49 |
| EEB4- | C6 48 | DEC | \$48 |
| EEB6- | A0 00 | LDY | #\$00 |
| EEB8- | B1 4C | LDA | (\$4C), Y |
| EEBA- | 91 48 | STA | (\$48), Y |
| EEBC- | A5 CA | LDA | \$CA |
| EEBE- | C5 4C | CMP | \$4C |
| EEC0- | A5 CB | LDA | \$CB |
| EEC2- | E5 4D | SBC | \$4D |
| EEC4- | 90 E0 | BCC | \$EEA6 |
| EEC6- | 4C 53 EE | JMP | \$EE53 |
| EEC9- | C9 28 | CMP | #\$28 |
| EECB- | B0 9B | BCS | \$EE68 |
| EECD- | A8 | TAY | |
| EECE- | A5 C8 | LDA | \$C8 |
| EED0- | 60 | RTS | |
| EED1- | EA | NOP | |
| EED2- | EA | NOP | |
| EED3- | 98 | TYA | |
| EED4- | AA | TAX | |
| EED5- | A0 6E | LDY | #\$6E |
| EED7- | 20 C4 E3 | JSR | \$E3C4 |
| EEDA- | 8A | TXA | |
| EEDB- | A8 | TAY | |
| EEDC- | 20 C4 E3 | JSR | \$E3C4 |
| EEDF- | A0 72 | LDY | #\$72 |
| EEE1- | 4C C4 E3 | JMP | \$E3C4 |
| EEE4- | 20 15 E7 | JSR | \$E715 |
| EEE7- | 06 CE | ASL | \$CE |
| EEE9- | 26 CF | ROL | \$CF |
| EEEB- | 30 FA | BMI | \$EEE7 |
| EEED- | B0 DC | BCS | \$EECB |
| EEEF- | D0 04 | BNE | \$EEF5 |
| EEF1- | C5 CE | CMP | \$CE |
| EEF3- | B0 D6 | BCS | \$EECB |
| EEF5- | 60 | RTS | |
| EEF6- | 20 15 E7 | JSR | \$E715 |
| EEF9- | B1 CE | LDA | (\$CE), Y |
| EEFB- | 94 9F | STY | \$9F, X |
| EEFD- | 4C 08 E7 | JMP | \$E708 |
| EF00- | 20 34 EE | JSR | \$EE34 |
| EF03- | A5 CE | LDA | \$CE |
| EF05- | 48 | PHA | |

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|-------|----------|-----|-----------|
| EF06- | 20 15 E7 | JSR | \$E715 |
| EF09- | 68 | PLA | |
| EF0A- | 91 CE | STA | (\$CE), Y |
| EF0C- | 60 | RTS | |
| EF0D- | FF | ??? | |
| EF0E- | FF | ??? | |
| EF0F- | FF | ??? | |
| EF10- | 20 6C EE | JSR | \$EE6C |
| EF13- | A5 CE | LDA | \$CE |
| EF15- | 85 E6 | STA | \$E6 |
| EF17- | A5 CF | LDA | \$CF |
| EF19- | 85 E7 | STA | \$E7 |
| EF1B- | 4C 44 E2 | JMP | \$E244 |
| EF1E- | 20 E4 EE | JSR | \$EEE4 |
| EF21- | 4C 34 E1 | JMP | \$E134 |
| EF24- | 20 E4 EE | JSR | \$EEE4 |
| EF27- | B4 78 | LDY | \$78, X |
| EF29- | B5 50 | LDA | \$50, X |
| EF2B- | 69 FE | ADC | #\$FE |
| EF2D- | B0 01 | BCS | \$EF30 |
| EF2F- | 88 | DEY | |
| EF30- | 85 DA | STA | \$DA |
| EF32- | 84 DB | STY | \$DB |
| EF34- | 18 | CLC | |
| EF35- | 65 CE | ADC | \$CE |
| EF37- | 95 50 | STA | \$50, X |
| EF39- | 98 | TYA | |
| EF3A- | 65 CF | ADC | \$CF |
| EF3C- | 95 78 | STA | \$78, X |
| EF3E- | A0 00 | LDY | #\$00 |
| EF40- | B5 50 | LDA | \$50, X |
| EF42- | D1 DA | CMP | (\$DA), Y |
| EF44- | C8 | INY | |
| EF45- | B5 78 | LDA | \$78, X |
| EF47- | F1 DA | SBC | (\$DA), Y |
| EF49- | B0 80 | BCS | \$EECB |
| EF4B- | 4C 23 E8 | JMP | \$E823 |
| EF4E- | 20 15 E7 | JSR | \$E715 |
| EF51- | A5 4E | LDA | \$4E |
| EF53- | 20 08 E7 | JSR | \$E708 |
| EF56- | A5 4F | LDA | \$4F |
| EF58- | D0 04 | BNE | \$EF5E |
| EF5A- | C5 4E | CMP | \$4E |
| EF5C- | 69 00 | ADC | #\$00 |
| EF5E- | 29 7F | AND | #\$7F |
| EF60- | 85 4F | STA | \$4F |
| EF62- | 95 A0 | STA | \$A0, X |

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|-------|----------|-----|--------|
| EF64- | A0 11 | LDY | #\$11 |
| EF66- | A5 4F | LDA | \$4F |
| EF68- | 0A | ASL | |
| EF69- | 18 | CLC | |
| EF6A- | 69 40 | ADC | #\$40 |
| EF6C- | 0A | ASL | |
| EF6D- | 26 4E | ROL | \$4E |
| EF6F- | 26 4F | ROL | \$4F |
| EF71- | 88 | DEY | |
| EF72- | D0 F2 | BNE | \$EF66 |
| EF74- | A5 CE | LDA | \$CE |
| EF76- | 20 08 E7 | JSR | \$E708 |
| EF79- | A5 CF | LDA | \$CF |
| EF7B- | 95 A0 | STA | \$A0,X |
| EF7D- | 4C 7A E2 | JMP | \$E27A |
| EF80- | 20 15 E7 | JSR | \$E715 |
| EF83- | A4 CE | LDY | \$CE |
| EF85- | C4 4C | CPY | \$4C |
| EF87- | A5 CF | LDA | \$CF |
| EF89- | E5 4D | SBC | \$4D |
| EF8B- | 90 1F | BCC | \$EFAC |
| EF8D- | 84 48 | STY | \$48 |
| EF8F- | A5 CF | LDA | \$CF |
| EF91- | 85 49 | STA | \$49 |
| EF93- | 4C B6 EE | JMP | \$EEB6 |
| EF96- | 20 15 E7 | JSR | \$E715 |
| EF99- | A4 CE | LDY | \$CE |
| EF9B- | C4 CA | CPY | \$CA |
| EF9D- | A5 CF | LDA | \$CF |
| EF9F- | E5 CB | SBC | \$CB |
| EFA1- | B0 09 | BCS | \$EFAC |
| EFA3- | 84 4A | STY | \$4A |
| EFA5- | A5 CF | LDA | \$CF |
| EFA7- | 85 4B | STA | \$4B |
| EFA9- | 4C B7 E5 | JMP | \$E5B7 |
| EFAC- | 4C CB EE | JMP | \$EECB |
| EFAF- | EA | NOP | |
| EFB0- | EA | NOP | |
| EFB1- | EA | NOP | |
| EFB2- | EA | NOP | |
| EFB3- | 20 C9 EF | JSR | \$EFC9 |
| EFB6- | 20 71 E1 | JSR | \$E171 |
| EFB9- | 4C BF EF | JMP | \$EFBF |
| EFBC- | 20 03 EE | JSR | \$EE03 |
| EFBF- | A9 FF | LDA | #\$FF |
| EFC1- | 85 C8 | STA | \$C8 |
| EFC3- | A9 74 | LDA | #\$74 |

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|-------|----------|-----|--------|
| EFC5- | 8D 00 02 | STA | \$0200 |
| EFC8- | 60 | RTS | |
| EFC9- | 20 36 E7 | JSR | \$E736 |
| EFCC- | E8 | INX | |
| EFCD- | 20 36 E7 | JSR | \$E736 |
| EFD0- | B5 50 | LDA | \$50,X |
| EFD2- | 60 | RTS | |
| EFD3- | A9 00 | LDA | #\$00 |
| EFD5- | 85 4A | STA | \$4A |
| EFD7- | 85 4C | STA | \$4C |
| EFD9- | A9 08 | LDA | #\$08 |
| EFDB- | 85 4B | STA | \$4B |
| EFDD- | A9 10 | LDA | #\$10 |
| EFDF- | 85 4D | STA | \$4D |
| EFE1- | 4C AD E5 | JMP | \$E5AD |
| EFE4- | D5 78 | CMP | \$78,X |
| EFE6- | D0 01 | BNE | \$EFE9 |
| EFE8- | 18 | CLC | |
| EFE9- | 4C 02 E1 | JMP | \$E102 |
| EFEC- | 20 B7 E5 | JSR | \$E5B7 |
| EFEF- | 4C 36 E8 | JMP | \$E836 |
| EFF2- | 20 B7 E5 | JSR | \$E5B7 |
| EFF5- | 4C 5B E8 | JMP | \$E85B |
| EFF8- | E0 80 | CPX | #\$80 |
| EFFA- | D0 01 | BNE | \$EFFD |
| EFFC- | 88 | DEY | |
| EFFD- | 4C 0C E0 | JMP | \$E00C |