

Department of Electrical and Computer Engineering

College of Engineering and Applied Sciences

WESTERN MICHIGAN UNIVERSITY



1903 • 2003

# **ECE 2510 Introduction to Microprocessors**

D-Bug12 Functions:  
Stepping Through Programs  
& Performing I/O

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# Basic D-Bug12 Debugging Operations

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- Executing a program starting at an instruction (g 122A)
- Executing a program until some critical instruction, go until (gt <addr>)
  - Also <RegisterName> and <RegisterName> <RegisterValue>
- Tracing program execution (t)
- Setting and clearing program breakpoints (br, nobr)
- Modifying (mm, mmw) and displaying (md, mdw) memory locations
  - Also a block fill (bf) command for multiple locations
  - Also move a block of memory (move)
- Modifying (rm) and displaying (rd) registers

# D-Bug12 Command Summary (1)

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• ALTCLK - Specify an alternate BDM communications rate.	22
• ASM - Single line assembler/disassembler.	24
• BAUD - Set the SCI communications BAUD rate.	28
• BDMDB - Enter the BDM command debugger.	29
• BDMPGMR - Load BDM Programmer Firmware Image Into MCU Flash	30
• BF - Block Fill user memory with data.	32
• BR - Set/Display user breakpoints.	33
• BS - Block Search, Search an Address Range For A Data Pattern	35
• BULK - Bulk erase on-chip EEPROM	37
• CALL - Execute a user subroutine, return to D-Bug12 when finished.	38
• DEVICE - Select/define a new target MCU device.	39
• EEBASE - Inform D-Bug12 of the target's EEPROM base address	42
• FBULK - Erase the target processor's on-chip Flash EEPROM	44
• FLOAD - Program the target processor's on-chip Flash EEPROM from S-Records	46
• FSERASE - Erase one or more sectors of target Flash	49
• G - Go. Begin execution of user program.	51
• GT - Go Till. Set a temporary breakpoint and begin execution of user program.	52
• HELP - Display D-Bug12 command set and command syntax.	53
• LOAD - Load user program in S-Record format.	55
• MD - Memory Display. Display memory contents in hex bytes/ASCII format.	57
• MDW - Memory Display Words. Display memory contents in hex words/ASCII format.	58
• MM - Memory Modify. Interactively examine/change memory contents.	59
• <b>ECE 251</b> MMW - Memory Modify Words. Interactively examine/change memory contents.	60