v1.7 FISH and Chips (and Boards): NEW LPC1115 Support!

Purpose:

Use this document to determine which .hex image file to use, along with the UART required, and the Flash and Ram expected, for your particular target.

TERMINAL Program Info:

The recommended terminal programs which support text source code file download are:

- Windows: Tera Term with Line Delay set as needed.
    - Windows/DOS file line termination (CR\LF) is automatically converted to CR.
- Linux: gtkterm with Line Delay set as needed.
    - Native Linux file line termination is LF only.
    - Double prompts per line indicate Windows/Dos files transferred and not converted to Linux.
- Code density and organization affect Line Delay requirements.

Board: STM32F4 Discovery

- STM32F4V407G Chip. SYSCLK = 168Mhz.
- 84MHz PCLK2, 48MHz PCLK1 for USB and RNG, 38.4MHz for I2S
- UART3 is the terminal, 9600, 8n1, XON/XOFF, PC10 = TX, PC11 = RX
- FISH_FORTH_STM32F4_Disco_PUBREL_RM_v1.6.hex
- Use the STM32 ST-LINK Utility to install the .hex image.
    - Any board that supports the same chip and UART3 I/O should work.

CHIP: LPC1115 (64k Flash 8k Ram): All versions SYSCLK = 48Mhz.

- UART0 is main terminal, 9600, 8n1, XON/XOFF
- FISH_FORTH_NXP_M0_1115_64X8_PUBREL_RM_v1.6.hex
- FLASH MAGIC Settings: LPC1115/303, “Erase all Flash+Code Rd Prt”

BOARD: LPCxpresso 1115 OM13035: (LPC1115/303)

- UART0 TXD, RXD marked on board

CHIP: LPC1114 (32k Flash 8k Ram): All versions SYSCLK = 48Mhz.

- Will run on larger Flash Array chips. Should run on “C” and “U” variants.
- UART0 is main terminal, 9600, 8n1, XON/XOFF
- FISH_FORTH_NXP_M0_11xx_32X8_PUBREL_RM_v1.6.hex
- FLASH MAGIC Settings: LPC1114/301, “Erase all Flash+Code Rd Prt”

BOARD: STP 1114 USB DevL: (LPC1114/301)

- USB serial is FTDI.

BOARD: LPCxpresso 1114 OM01149: (LPC1114/301)
- UART0 TXD, RXD marked on board

CHIP: LPC1114 (32k Flash 4k Ram): All versions SYSCLK = 48Mhz.
- Will run on larger Ram and Flash Array chips. Should run on “C” and “U” variants.
- UART0 is main terminal, 9600, 8n1, XON/XOFF
- FISH_FORTH_NXP_M0_11xx_32X4_PUBREL_RM_v1.6.hex
- FLASH MAGIC Settings: LPC1114/102, “Erase all Flash+Code Rd Prt”

BOARD: STP 1114 USB DevL: (LPC1114/102)
- USB serial is FTDI.

CHIP: LPC812 (16k Flash 4k Ram): SYSCLK = 24MHz
- UART0 is main terminal, 9600, 8n1, XON/XOFF
- FISH_FORTH_NXP_M0_812_PUBREL_RM_v1.6.hex
    - The Reference Model (RM) provides 1k FLASH_SAVE
- FISH_FORTH_NXP_M0_812_PUBREL_SRM_v1.6.hex
    - The Small Reference Model (SRM) provides 2k FLASH_SAVE
    - The SRM omits .B .D .SB and .SD
    - The SRM omits the INTERRUPTS: **WORDCAT**
        - 0 0 **DELAY** stops the SYSTICK interrupt.
- FLASH MAGIC Settings: LPC812M101FD20, “Erase all Flash+Code Rd Prt”

BOARD: STP 812 USB DevL: (LPC812M101FD20)
- USB serial is FTDI.

BOARD: LPC812-LPCXpresso Board OM13053 (LPC812M101FDH20)
- UART0 RX = PIO0_0 and TX = PIO_4
- FLASH MAGIC Settings: LPC812M101FDH20, “Erase all Flash+Code Rd Prt”

BOARD: mBed LPC812 Max Board:
- UART0 RX = PIO0_1 and TX = PIO0_6; Feeds on-board Serial to USB
- FISH_FORTH_NXP_M0_812_PUBREL_RM_mBED_MAX_v1.6.hex
    - The Reference Model (RM) provides 1k FLASH_SAVE
- FISH_FORTH_NXP_M0_812_PUBREL_SRM_mBED_MAX_v1.6.hex
    - The Small Reference Model (SRM) provides 2k FLASH_SAVE
    - The SRM omits .B .D .SB and .SD
    - The SRM omits the INTERRUPTS: **WORDCAT**

        - 0 0 **DELAY** stops the SYSTICK interrupt.
- See link below for Flash image install options:
    - https://mbed.org/users/wim/notebook/lpc812-lpcxpresso-board/