

noForth for MSP430FR2355

The .HEX files in this directory contain binaries for the noForth 2x55 variants on the *MSP-EXP430FR2355 Launchpad*. The noForth data for clock speed, Baud rate, Uart, etc. are packed in 14 consecutive bytes, the CONFIG data. *When you use other settings or another board, the CONFIG data in the HEX-file must be altered:*

1. Choose one of the CONFIG options below.
2. Copy the blue intelhex line and paste it in the binary, overwriting the (third) line that starts with `:0E183200...`
3. Then save the file with an appropriate name.

- MSP-EXP430FR2355 Launchpad,
Baud rate 115200, Uart-1, 1 MHz, switch S? = P2.3
`:0E183200F90000001E0006080102080000D6A2`
- MSP-EXP430FR2355 Launchpad,
Baud rate 115200, Uart-1, 16 MHz, switch S? = P2.3
`:0E1832009F0F100AE801060801020800A1F746`
- MSP-EXP430FR2355 Launchpad,
Baud rate 115200, Uart-1, 24 MHz, switch S? = P2.3
`:0E1832006F17200EDC02060801020D000125D2`

Structure of the CONFIG data for noForth 2x55

Example for the MSP-EXP430FR2355 Launchpad

Baud rate 115200, Uart-1, 8 MHz, switch S? = P2.3

`:0E183200CF070006F40006080102040051551D`

	:	Start of intelhex line
	0E	Number of bytes to be written
	18	Destination address (hi-byte)
	32	Destination address (lo-byte)
	00	Record type, must be zero
1832	CF	MS# for MS (lo-byte) \ MS# = (ClockFreq/4000)-1
1833	07	MS# (hi-byte) \ 8MHz: MS# = 8000000/4000-1 = 1999 = hx 07CF
1834	00	FRCTL0, FRAM wait states
1835	06	CSCTL1, DCO frequency range
1836	F4	CSCTL2, Refclock multiplier (lo-byte)
1837	00	CSCTL2, Refclock multiplier (hi-byte)
1838	06	Uart (00=Uart0, 06=Uart1)
1839	08	Port bit mask for switch S?
183A	01	PxIN, port address for S? (lo-byte)
183B	02	PxIN, port address for S? (hi-byte)
183C	04	UCAxBR0 \ Baud rate
183D	00	UCAxBR1 \ Baud rate
183E	51	UAXMCTL, Baudrate modulator (lo-byte)
183F	55	UAXMCTL, Baudrate modulator (hi-byte)
	1D	Checksum, makes the sum of all bytes zero (8 bit)