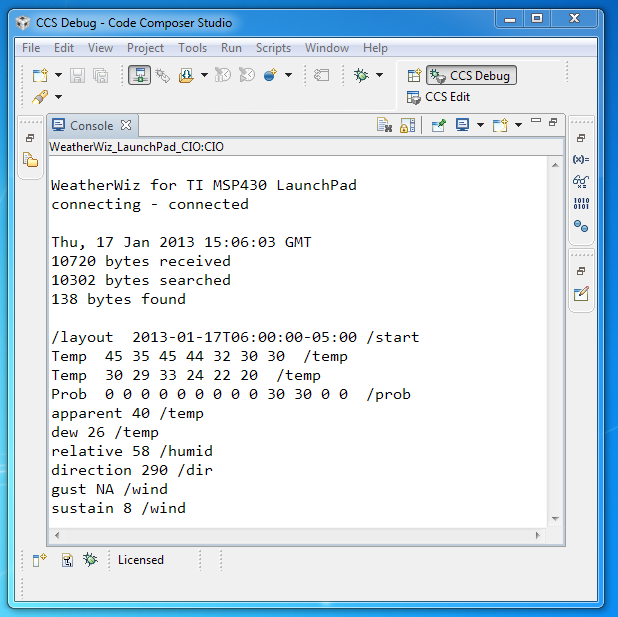
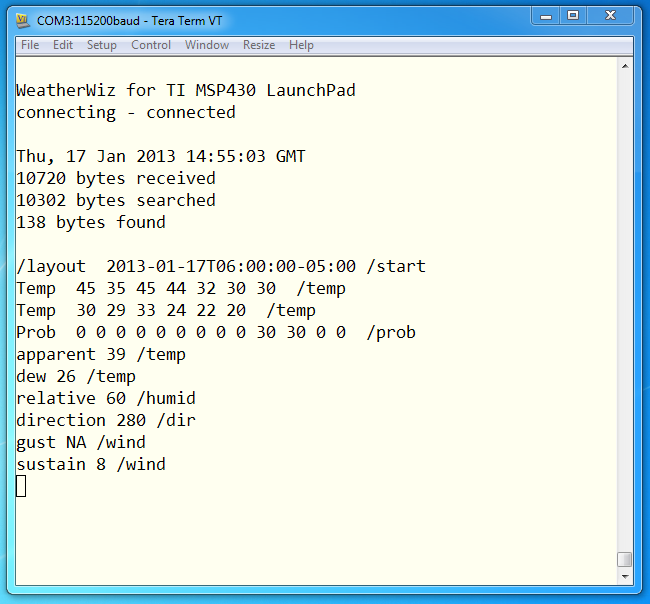
README.DOC

There are two versions of the project…

1. WeatherWiz\_LaunchPad\_CIO uses the CCS Debug Console to display the weather data.

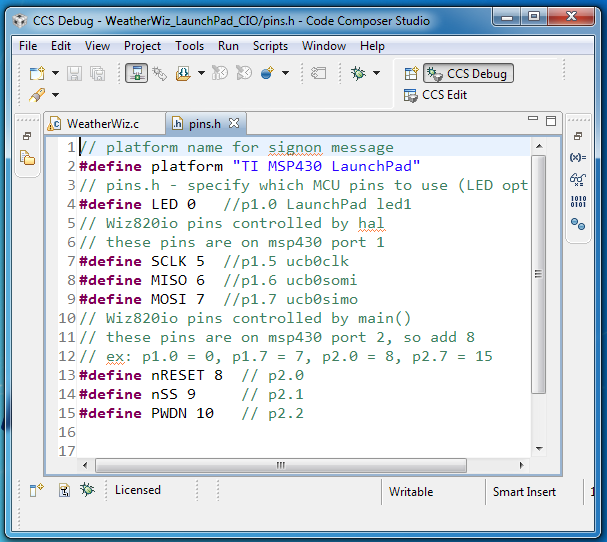


2. WeatherWiz\_LaunchPad\_USCI uses the ‘2553 MCU UART (TxD – P1.2) to display the weather data.

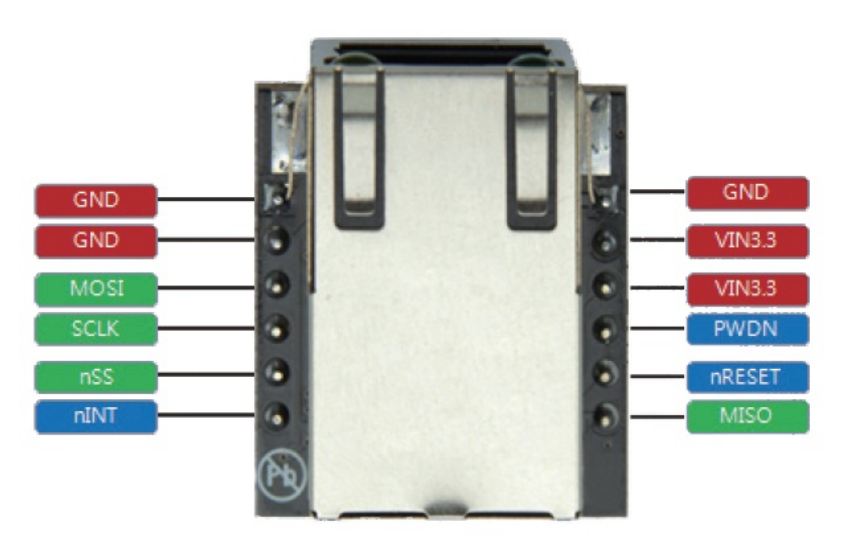


The only difference between the two projects is the display driver in the respective Hal files i.e. Hal\_CIO.c uses the CCS Debug Console and Hal\_USCI.c uses the UART.

Connect the Wiz820io to the Launchpad using the pin definition in pins.h



Connect the Wiz820io VIN3.3 and GND to the Launchpad Vcc (J1-1) and GND (J2-20). Note the multiple power and ground connections on the Wiz820io.



If you’re using the UART version (WeatherWiz\_LaunchPad\_USCI) connect LaunchPad P1.2 (UART TxD) to your serial receiver/display. Note the TxD output is TTL (3.3V) level so an RS-232 transceiver or serial-to-USB converter may be required. The UART configuration (38400 8n1) is defined in Hal\_USCI.c

//uart - use MSP430 hardware uart (USCIA0) - 38400 8/n/1

P1SEL = BIT2; // P1.2=TXD

P1SEL2 = BIT2; // P1.2=TXD

UCA0CTL1 |= UCSSEL\_2; // SMCLK

**#if** clkrate == 1

UCA0BR0 = 26; // 1MHz 38400 lsb

UCA0BR1 = 0; // 1MHz 38400 msb

**#endif**

**#if** clkrate == 16

UCA0BR0 = 0xA0; // 16MHz 38400 lsb

UCA0BR1 = 1; // 16MHz 38400 msb

UCA0MCTL = UCBRS1 + UCBRS2; // Modulation UCBRSx = 6

**#endif**

UCA0CTL1 &= ~UCSWRST; // Start USCI

The only software configuration required is editing the netparms.h file to match your LAN setup…

// source (client) ip

**static** **const** **char** srcip[] = {0x0, // w5200 mode reg

10,0,0,1, // gateway

255,255,255,0, // subnet mask

0x0,0x0,0x0,0x0,0x0,0x0, // mac addr

10,0,0,32}; // Wiz820io ip address

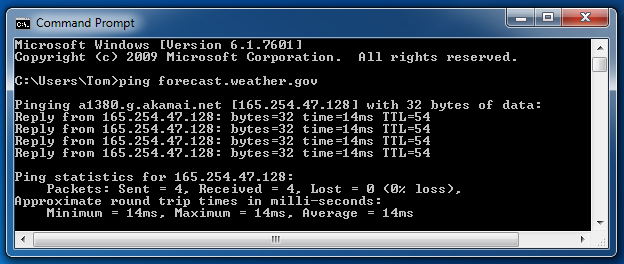
// destination (server) ip

**static** **const** **char** dstip[] = {165,254,47,128,// forecast.weather.gov ip

0,80,// port 80

0x5,0xb4};// mss-max seg size

Change the gateway, subnet mask, mac address, Wiz820io source ip address and forecast.weather.gov destination ip address. You can determine the latter using ping…



Use F11-Debug and F8-Resume to run the program. You can change the weather location (default New York City) by setting the latitude and longitude in get.h…

// GET - change lat(itude) and lon(gitude) to set location (USA)

**static** **const** **char** get[] = "\

GET /MapClick.php?\

lat=40.71&lon=-74.01\

After confirming proper operation with the LaunchPad you can make a standalone version using just the ‘2553 MCU and Wiz820io running the UART version of the software (WeatherWiz\_LaunchPad\_USCI). The only changes are…

1. Connect the MCU reset pin (‘2553 pin 16) to Vcc (3.3V ‘2553 pin 1) with a 10K ohm resistor.

2. Optionally replicate the LaunchPad LED1 on P1.0 (‘2553 pin 2) with an appropriate current limiting resistor.

