**Using the Dual Inlet as a Reference Gas Source with Constant Pressure**

The only modifications made to the acquisition ISL script are in the "main" section of the program. You do not have to include extra isl libraries at the beginning of the script.

main()

{

\_Set("Dual Inlet System/Valve 25",1); // Opening valve 25 at right bellows

\_Set("Dual Inlet System/Valve 15",1); // Opening valve 15 at left bellows

//The following three lines were already there in the main file

call UploadSamplerMethod();

call InitScript();

call PeakCenter();

//The following four \_Set commands will open the changeover valve for the right bellows

\_Set("Change Over 2/Valve 32",1);

\_Set("Change Over 2/Valve 33",1);

\_Set("Change Over 2/Valve 31",0);

\_Set("Change Over 2/Valve 34",0);

\_Delay(5000); // a 5 second delay to allow beam to stabilize

// In the following line, the "1" designates the right bellows, the "5000" designates the desired beam intensity, the "0" designates the channel that the beam intensity is being read from (note that I had to play with this to find out which channel was the correct one for monitoring the m/z 2 beam. You'll have to figure out which channel is appropriate for your measurement), and the "50" is the threshold that the final pressure should be within from the setpoint (ie 4950mV to 5050mV here).

\_SetBellowVolt(1,5000,0,50);

//The following four \_Set commands will close the changeover valve

\_Set("Change Over 2/Valve 31",0);

\_Set("Change Over 2/Valve 33",0);

\_Set("Change Over 2/Valve 32",1);

\_Set("Change Over 2/Valve 34",1);

\_Delay(5000);  // This delay is to allow the beam time to drop back to zero (not really necessary when using an autosampler)

//The rest of these lines were already in the gasbench acquisition.isl file

call GasBenchNextSample();

call ExecuteExtraScript();

call AcidDosing();

call StartAutoDilution();

call WaitForStartSignal();

call StartChromatogram();

call WaitForScanEnd();

}

That's it. It can certainly be cleaned up a little and probably there is a more efficient way to call some commands. Also, you can easily add the left bellows to this as well.