

SOFTWARE

The AOB2-P card is straightforward to program. For example the following BASIC procedure might be used:

To output an analog value with 12-bit resolution, a corresponding decimal number N between 0 and 4095 is calculated.

$$N / 4095 = V(\text{out}) / V(\text{full scale})$$

Then the number is split between high and low bytes, as follows:

$$\begin{aligned} N &= N * 16 \\ H\% &= \text{INT} (N / 256) \\ L\% &= N - (H\% * 256) \end{aligned}$$

Next the data are written to the selected analog output channel. (See I/O Address Map.) In this example, we will assume analog output 0 (AO 0).

$$\begin{aligned} \text{OUT} (\text{BASE} + 0), L\% \\ \text{OUT} (\text{BASE} + 1), H\% \end{aligned}$$

For simplicity, it was assumed that the simultaneous-update capability of AOB2-P was not used.

This is demonstrated in Sample Program #1 on the diskette provided with your AOB2-P card. That program is provided in QuickBASIC, C, and Pascal.