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## **AD7896 32 bit ocx for Visual Basic 4 (32bit) and VC4++**

This ocx greatly simplifies the use of the Analog Devices AD7896 12 bit serial A/D converter.

The ocx provides the interface from the PC to the AD7896 using Visual Basic Version 4 32bit or Visual C++ Version 4.x.

The easiest way to try the program is to use the parallel port on the PC.

Only three lines on the parallel port are required to drive the AD7896 and one line of VB code.

The user does not have to have any prior knowledge of using the AD7896 to be able to use it in less than 5 minutes.

Simply add the AD7896.OCX custom control into the VB tools menu and set the port write address (default is the printer output port 0x378 (888dec)), the bit on this port which you would like to use the convert bit, and the clock bit. Then set the port read address (default is the printer input port 0x379(889dec)) and select the bit of this port that you would like to use as the data read input. Then simply include the following in your VB form to read the port Data = AD7896.Read. This is all that is required to read the port (providing you have wired it up of course).

The control can be used with any port that has two data outputs and one data input. It is even possible to use the status bits on the serial port (providing you add a level shifter change the signals from rs232 to TTL).

Note: Some of the printer input bits invert the data so you will have to Xor the data that has been read with 0xffff to correct this.

In addition is a timer that can be used to periodically poll the AD7896. The time period is set by the Interval property. The default is 1000 which corresponds to 1 sec. The speed at which you can poll the AD7896 is a function of the speed of your processor and also what other processing is taking place. To poll the device set the Interval property and then double click the control. The AD7896\_Timer procedure will be displayed. Insert the code to read the port here eg Data = AD7896.Read. Then add the following line to the Form\_Load procedure - AD7896.EnableTimer = True. This is all that is required to poll and read the AD7896.

Multiple controls can be added to the form to read multiple devices. Assign the ClockBit and ConvertBit to the same bit on all of the devices and take the data out to separate pins.

I have included a sample program, including the source, of a VB program using the AD7896 to select the ports and bits and then to read the AD7896.

This ocx is provided as freeware and can be used and distributed freely, all I ask is that if you use it please email me to tell me of any problems or suggestions. The only nag screen is when the control is brought up for the first time in design mode.

Note: If you are not using VB4 32bit or VC4++ and you would like to run the demo. Then you will have to load in the VB4 32bit runtime package which is available at a number of sites on the web. Last time I looked it was around 1Meg. Before running the demo remember to register the control with regsrv32.exe ad7896.ocx

**IMPORTANT**

**This control gives direct access to any I/O port on the PC. Used unwisely, it can crash your system if you poke around your PC's internal I/O ports.**

I am currently working on a control using the DAC8512 12 bit serial D/A converter. The interface will be the same as the AD7896.

Other controls will be developed if there is enough interest in this one.

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