IR remote control

Contributed by Fred
Thursday, 16 October 2008
Last Updated Thursday, 08 April 2010

How to exchange data between a recycled TV/VCR IR remote control and your PC...

Nowadays I'm dealing with electronics. I'm trying to exchange data by IR with my PC. All the hardware comes from recycling (a gentle way to say I took it in trash ;-) : an old VCR and its IR remote control: On the right in the above photo, you see the IR remote controler and on the left the IR receiver. At the moment I can determine the frequency of the carrier(33/34 kHz) and the coding used (RECS80). All these analysis were made with my good old analogic oscilloscope. I also could develop a software to decode the data frames. Here follows the hardware's details:
- a SABA TC 525 IR remote control taken from an old VCR
- a TSOP1733 IR receiver from Vishay (I deduced it from the IR carrier frequency).

The software :
It is a simple command line program coded with Visual C++ 2005 express. You can dawload it here.
This software relies on inpout32.dll which is a library available with its source code on http://www.logix4u.net/inpout32.htm. This library allows to do some I/O on the parallel port on Windows 98/2000/XP.Conclusion:

The software is tremendously slow due to its architecture. A much more performant version is coming soon. For the moment, I have coded a test program to decode the RC5 code on the DSR pin of a serial port. An adaptation has to be done on the logical levels of the TSOP 1733 IR receiver (0 or +5VDC) to comply to the RS232 levels. You can download it here. You can see it as a first attempt to read RECS80 on a serial port.