

EAS97M32, Version 1.00
Copyright © 1994-2002 Embedded Acquisition Systems

Embedded Acquisition Systems
email: info@embeddedtronics.com
URL: <http://www.embeddedtronics.com>

Overview

EAS97M32 is a DLL that was written to help Visual Basic programmers access the SpeedDaq hardware functions. The DLL contains a number of routines and was written entirely in C.

To use EAS97M32 in your Visual Basic program, you should copy EAS97M32.TXT to one of the .BAS modules in your project. This file contains the declarations for all of the EAS97M32 subroutines and functions. You must also place the DLL itself where Windows can find it (normally in the Windows system directory). You can then call these routines as you would call any other DLL routine. See the Visual Basic documentation for additional information about calling DLL routines from Visual Basic.

WARNING: Visual Basic prevents you from making most errors that would adversely affect the system. When you use this or any other DLL, Visual Basic can no longer prevent these types of errors. Under Windows protected mode, most errors will result in a General Protection Fault (GPF). However, it is possible, using EAS97M32, to corrupt Windows, DOS or even the files on your disk. Use caution when working with any DLL and be sure to save and backup your files often.

If you find a problem or have a suggestion for making the DLL or associated documentation more helpful, please share your knowledge and let us know.

Subroutine Reference

This section lists and describes the subroutines contained within EAS97M32.DLL.

outbyte

Declaration 32bit: Declare Sub outbyte Lib "eas97m32.dll" (ByVal *nPort*%, ByVal *nPort*%)

Description: Sends a byte value to the I/O port *nPort* specified by *nData*.

Note that under Windows protected mode, some I/O ports may be in use by Windows and will not be available to your application.

inbyte

Declaration 32bit: Declare Function inbyte Lib "eas97m32.dll" (ByVal *nPort*%) As Integer

Description: Reads a byte value from the I/O port specified by *nPort*.

Note that under Windows protected mode, some I/O ports may be in use by Windows and will not be available to your application.

bipolar10

Declaration 32bit: Declare Function bipolar10 Lib "eas97m32.dll" (ByVal *channel*%, ByVal *baseaddress*%) As Integer

Description: Function will start a bipolar single ended conversion and return integer value between -2048 and +2047

-10 to 9.9951 Volts maximum input

channel is a input integer from 0 to 7 corresponding to the 8 A/D channels on SpeedDaq.

Bipolar A/D channel pin assignments for SpeedDaq

Channel 0	JP1 pin 1
Channel 1	JP1 pin 2
Channel 2	JP1 pin 3
Channel 3	JP1 pin 4
Channel 4	JP1 pin 5
Channel 5	JP1 pin 6
Channel 6	JP1 pin 7
Channel 7	JP1 pin 8

baseaddress is the address of the PC parallel port SpeedDaq is connected to.

bipolar5

Declaration 32bit: Declare Function bipolar5 Lib "eas97m32.dll" (ByVal *channel*%, ByVal *baseaddress*%) As Integer

Description: Function will start a bipolar single ended conversion and return integer value between -2048 and +2047

-5 to 4.997 Volts maximum input

channel is a input integer from 0 to 7 corresponding to the 8 A/D channels on SpeedDaq.

Bipolar A/D channel pin assignments for SpeedDaq

Channel 0	JP1 pin 1
Channel 1	JP1 pin 2
Channel 2	JP1 pin 3
Channel 3	JP1 pin 4
Channel 4	JP1 pin 5
Channel 5	JP1 pin 6
Channel 6	JP1 pin 7
Channel 7	JP1 pin 8

baseaddress is the address of the PC parallel port SpeedDaq is connected to.

unipolar10

Declaration 32bit: Declare Function unipolar10 Lib "eas97m32.dll" (ByVal *channel*%, ByVal *baseaddress*%) As Integer

Description: Function will start a unipolar single ended conversion and return integer value between 0 and 4097

0 to 9.998 Volts maximum input

channel is a input integer from 0 to 7 corresponding to the 8 A/D channels on SpeedDaq.

Unipolar A/D channel pin assignments for SpeedDaq

Channel 0	JP1 pin 1
Channel 1	JP1 pin 2
Channel 2	JP1 pin 3
Channel 3	JP1 pin 4
Channel 4	JP1 pin 5
Channel 5	JP1 pin 6
Channel 6	JP1 pin 7
Channel 7	JP1 pin 8

baseaddress is the address of the PC parallel port SpeedDaq is connected to.

unipolar5

Declaration 32bit: Declare Function unipolar5 Lib "eas97m32.dll" (ByVal *channel*%, ByVal *baseaddress*%) As Integer

Description: Function will start a unipolar single ended conversion and return integer value between 0 and 4097

0 to 4.998 Volts maximum input

channel is a input integer from 0 to 7 corresponding to the 8 A/D channels on SpeedDaq.

Unipolar A/D channel pin assignments for SpeedDaq

Channel 0	JP1 pin 1
Channel 1	JP1 pin 2
Channel 2	JP1 pin 3
Channel 3	JP1 pin 4
Channel 4	JP1 pin 5
Channel 5	JP1 pin 6
Channel 6	JP1 pin 7
Channel 7	JP1 pin 8

baseaddress is the address of the PC parallel port SpeedDaq is connected to.

locatedaq

Declaration 32bit: Declare Function locatedaq Lib "eas97m32.dll" () As Integer

Description: Function will attempt to locate which parallel port SpeedDaq is attached to.

Return values are 0x278, 0x378 or 0x3bc.
If SpeedDaq cannot be located, function will return -1

Visual Basic function declaration.

```
'-----'  
' EAS97M32, Version 1.00  
' Copyright (c) 1994-2002 Embedded Acquisition Systems  
'  
'  
' Embedded Acquisition Systems  
' 2517 Cobden Street  
' Sterling Heights, MI 48093  
' email: jfong@embeddedtronics.com  
' URL: http://www.embeddedtronics.com  
'  
'  
'-----'  
  
' Declaration file for EAS97M32.DLL functions and subroutines.  
' Maxim 197 A/D  
Public Declare Sub outbyte Lib "eas97m32.dll" (ByVal nPort%, ByVal Data%)  
Public Declare Function inbyte Lib "eas97m32.dll" (ByVal nPort%) As Integer  
Public Declare Function bipolar10 Lib "eas97m32.dll" (ByVal channel%, ByVal  
baseaddress%) As Integer  
Public Declare Function bipolar5 Lib "eas97m32.dll" (ByVal channel%, ByVal  
baseaddress%) As Integer  
Public Declare Function unipolar10 Lib "eas97m32.dll" (ByVal channel%, ByVal  
baseaddress%) As Integer  
Public Declare Function unipolar5 Lib "eas97m32.dll" (ByVal channel%, ByVal  
baseaddress%) As Integer  
Public Declare Function locatedaq Lib "eas97m32.dll" () As Integer
```

STANDARD LEGAL STUFF

Although all of the circuits and projects provided have been thoroughly tested by Embedded Acquisition Systems (EAS). We cannot take responsibility for the circuits, nor will we take any responsibility for anything happening as a result of using any of our designs.

PERFORMANCE INFORMATION: Performance tests and ratings are measured using specific computer systems and/or components and reflect the approximate performance of EAS products as measured by those tests. Any difference in system hardware or software design or configuration may affect actual performance.

SINGLE COPY LICENSE: You may download copies of the information or software ("Materials") found on EAS sites on a single computer for your personal, non-commercial internal use only. This is a license, not a transfer of title, and is subject to the following restrictions: you may not: (a) modify the Materials or use them for any commercial purpose, or any public display, performance, sale or rental; (b) decompile, reverse engineer, or disassemble software Materials; (c) remove any copyright or other proprietary notices from the Materials; (d) transfer the Materials to another person. You agree to prevent any unauthorized copying of the Materials.

OWNERSHIP OF MATERIALS: Materials are copyrighted and are protected by worldwide copyright laws and treaty provisions. They may not be copied, reproduced, modified, published, uploaded, posted, transmitted, or distributed in any way, without EAS's prior written permission. Other rights may be granted to you by EAS in writing or incorporated elsewhere in the Materials.

TERMINATION OF THIS LICENSE: EAS may terminate this license at any time if you are in breach of the terms of this Agreement. Upon termination, you will immediately destroy the Materials.

DISCLAIMER: THE MATERIALS ARE PROVIDED "AS IS" WITHOUT ANY EXPRESS OR IMPLIED WARRANTY OF ANY KIND INCLUDING WARRANTIES OF MERCHANTABILITY, NONINFRINGEMENT OF INTELLECTUAL PROPERTY, OR FITNESS FOR ANY PARTICULAR PURPOSE. IN NO EVENT SHALL EAS, OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, BUSINESS INTERRUPTION, LOSS OF INFORMATION) ARISING OUT OF THE USE OF OR INABILITY TO USE THE MATERIALS, EVEN IF EAS HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

BECAUSE SOME JURISDICTIONS PROHIBIT THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

EAS further does not warrant the accuracy or completeness of the information, text, graphics, links or other items contained within these materials. EAS may make changes to these materials, or to the products described therein, at any time without notice. EAS makes no commitment to update the Materials.