DALLAS SEMICONDUCTOR

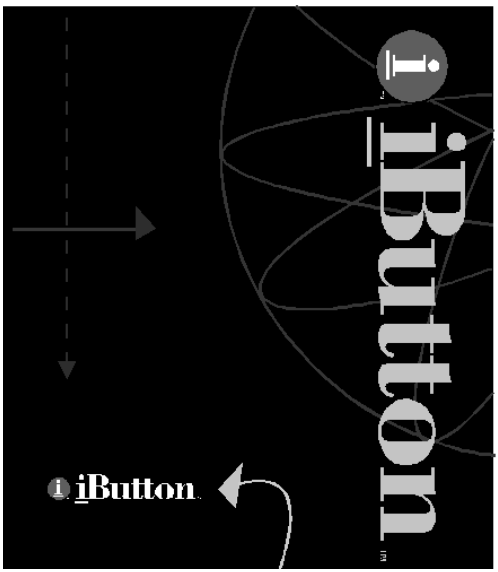
DS0621–SDK
iButton™ TMEX™ Professional Software Developer's Kit: *Version 3.00*

NEW FEATURES

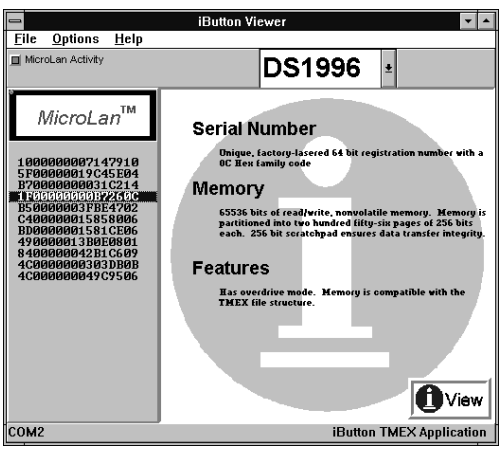
- Easy installation under Windows 3.1 or higher
- Includes 32–bit drivers and examples for Microsoft Windows 95 and NT
- Drivers are automatically installed with the included iButton TMEX installation disks for DOS, Windows 3.1, and Windows 95/NT
- Hyper–linked Windows Help files on the TMEX API and the source code examples
- Full TMEX documentation in Adobe Acrobat (PDF) format on disk
- Overdrive (fast) communication mode supported with the DS1410E parallel port adapter and Overdrive capable iButtons

FEATURES

- Language–independent support for iButton TMEX on IBM PCs, compatibles, and DOS handhelds
- TMEX provides API calls to locate and identify iButtons, and to read and write TMEX Extended File Structure files
- Supports Microsoft Windows 3.1, 95 and NT with universally callable DLLs
- Supports DOS with installable interrupt service routines
- Includes TMEX iButton utilities similar to FORMAT, DIR, MD, RD, CD, TREE, TYPE, COPY, RENAME, DELETE, CHKDSK, ATTRIB, and DISKCOPY, and a utility to perform storage optimization and defragmentation
- Includes source code example programs for DOS written in C, Pascal, and Basic, and Microsoft Windows (16– and 32–bit) examples written in C, Delphi (Pascal), and Visual Basic
- Supports all SRAM, EEPROM and EPROM iButton devices up to 64K bits through the DS9097E COM–Port adapter
- Supports all SRAM and EEPROM iButton and reads all EPROM iButton devices up to 64K bits through the DS1410E and DS1410D parallel port adapter



iButton VIEWER



DESCRIPTION

TMEX is the set of drivers, utilities and other interface modules required to interface with the Dallas Semiconductor iButton products utilizing the 1–Wire™ protocol. Using the TMEX Application Programming Interface (API), the DS0621–SDK iButton TMEX Professional Software Developer's Kit facilitates the development of iButton programs on IBM PCs, compatibles, and popular DOS handheld computers.

The cornerstone of TMEX is the Extended File Structure. Similar to floppy disks this file structure allows for multiple files and sub–directories to reside in an iButton. Using different files, one iButton can support multiple uses such as access control and emergency medical information. The Extended File Structure provides an efficient and consistent method for accessing data in an iButton.

The TMEX drivers supplied with this kit support all functions of the DS9097E COM port adapter and the DS1410E parallel port adapter. The DS9097E and the DS1410E are not included in this kit. Other PC hardware platforms can be supported by writing hardware–specific low–level drivers. The low–level driver can then easily be interfaced with the high–level file functions provided in this kit to achieve full functionality.

SOURCE CODE EXAMPLES

The source code of the included example programs written in C, Pascal and Basic demonstrates the use of the TMEX API. The TMEX drivers are language independent. The example programs are written for DOS, Windows (16–bit), and Windows (32–bit). Highlights from the examples are: searching the MicroLAN for iButtons, reading/writing iButton files, directory manipulation on iButtons, reading a temperature from a DS1920 iButton, and reading the time register of a DS1994 iButton.

A Windows hyper–linked 'Examples Help' file is provided to explain each example program, its target system, and the location of the source files.

TMEX API HELP

The complete TMEX API is documented in a standard manual provided in electronic form. The same information is also provided in a Windows hyper–linked 'TMEX API Help' file. This help file has the advantage of a quick lookup.

iButton TMEX

iButton TMEX (minus the 'SDK' tag) is the 'Single User License' of the drivers. The SDK comes with a single copy of iButton TMEX (part number DS0621–SUL). This 'Single User License' consists of four diskettes, labeled DOS, Windows 3.1, Window 95/NT, and Documentation. Each of the software disks has an install program called SETUP.EXE that will perform an installation of the TMEX drivers that is appropriate for each platform and makes the PC ready for a TMEX–compatible application.

In addition to the TMEX drivers iButton TMEX includes one or more iButton utilities. The DOS installation provides command utilities similar to those provided by DOS such as DIR, COPY, etc. The source code for most of these command line utilities is provided in the SDK. The Windows installations (16– and 32–bit) come with a GUI utility called the 'iButton Viewer'. This utility shows a continuously updated list of the iButton devices on the MicroLAN. Selecting an iButton will provide a brief description of the iButton type (see picture on page 1). Viewing an iButton will open a device specific viewer appropriate for the features of the device. This viewer is designed to be a general purpose utility.

The first copy of iButton TMEX is free. Additional copies can be purchased in packets of 10 from Dallas Semiconductor. Upgrades will be provided from our Web site (www.iButton.com).

The DS0621–SDK is supplied on several 1.44 MByte MS–DOS diskettes. The installation program SETUP.EXE can be run in Windows 3.1 or higher. The code provided with the DS0621–SDK is licensed for individual use. Licenses are available for multiple installations – contact Dallas Semiconductor for details.