

user manual

# FliteDeck Master 2.0



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## **Contact Us**

VIA Technologies Inc.  
No. 531, 1F Zhong Zheng Road  
Xindian City, Taipei County, 23148  
Taiwan

Web: <http://www.via.com.tw>

Email: [mkt@via.com.tw](mailto:mkt@via.com.tw)

## Revision History

Version	Date	Description
1.00	4/30/2009	Initial release
1.01	5/27/2009	Updated table on page 6
1.02	7/9/2009	Updated compatible hardware

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# 1

## Installing the FliteDeck Master Application

This section introduces the platform requirements and describes how to install and uninstall the VIA FliteDeck Master application.

## SYSTEM REQUIREMENTS

### Software

- Microsoft Windows XP
- Microsoft NET Framework 2.0 or above version

### Hardware

The VIA FliteDeck Master application is compatible with any of the following VIA VEPD boards:

- EPIA-M700
- EPIA-N700
- EPIA-P710
- EPIA-P700
- EPIA SN
- EPIA LT
- VB7007
- NAB7500
- NAS7800
- EITX-3000
- EPIA-P720

The VIA FliteDeck Master application is compatible with any of the following VIA VEPD systems:

- VMPC VM7700
- VIPRO VP7710
- ARTiGO A2000
- AMOS-3000
- NSD7200

## SOFTWARE NAMING CONVENTION

The setup package of the FliteDeck Master application is named **FliteDeck\_v2.x.x.x\_yyyymmdd.zip**. The “x” represents the version number. The “**yyymmdd**” represents the year, month and date.

## INSTALLATION

Extract the files from the ZIP archive named **FliteDeck\_v2.x.x.x\_yyyymmdd.zip**. The ZIP archive contains two files: **FDSetup.msi** and **setup.exe**.

Run the Microsoft Windows Installer file named **FDSetup.msi**. The installation wizard will guide the user through the process of installing the application. Once the installation is complete, a shortcut icon named “**FliteDeck Master**” will appear on the OS desktop.



The FliteDeck Master application can be easily uninstalled using **Add/Remove Programs** in the **Control Panel**.

## EXECUTION

Double-click the shortcut named “**FliteDeck Master**” on the desktop or select “**FliteDeck Master**” from the program menu to start the program.

# 2

## FliteDeck Master Overview

The FliteDeck Master application was created with the help of the VIA FliteDeck SDK. This application enables software control over the compatible hardware listed in chapter 1. This application can be used as a reference for developers who are interested in implementing FliteDeck controls into their own software.

## MAIN FLITEDECK FEATURES

FliteDeck Master provides the following main features:

### GPIO

FliteDeck Master enables access to any GPIO pin in order to read from or write to the pin. GPIO pins can be set to function as either input or output pins. If the pin is set to input, high or low values can be read from the pin. If the pin is set to output, high or low values can be written to the pin.

### SMBus

FliteDeck Master provides a way to assign a slave address and set the offset. Data can then be read from or written to the slave address.

### LCD Control

FliteDeck Master enables control over LCD displays. Such controls include powering on, powering off, and changing the brightness.

### Watchdog Timer

FliteDeck Master enables control over the Watchdog Timer. It provides the ability to set the values for the timeout and restart timers.

### Voltage

FliteDeck Master enables voltage monitoring across the mainboard and CPU including +12V, -12V, VSB, +5V, +3.3V, VBAT, Vcore.

### Fan/Temperature

FliteDeck Master enables the monitoring of CPU fan speed, system fan speed, CPU temperature, and system temperature.

## CPU/Memory Info

FliteDeck Master can display information about the CPU and memory including CPU name, package, speed, physical memory size, virtual memory size, etc.

## HDD Info

FliteDeck Master can display information about the HDD size, available size, file system.

## Drive S.M.A.R.T.

S.M.A.R.T. is an acronym for **S**elf-**M**onitoring, **A**nalysis and **R**eporting **T**echnology. This is a standard for checking whether a hard disk is good or damaged.

## FLITEDECK COMPATIBILITY

The FliteDeck Master application can easily support new boards without having to update the core application itself. FliteDeck Master can be made compatible with new boards by simply updating the FliteDeck Master configuration files.

FliteDeck Master currently supports 14 products that include both VEPD mainboards and systems. Their supported functions are listed in the table below.

	GPIO	Watchdog Timer	SMBus	LCD Display Power On/Off	LCD Backlight
<b>Mainboards</b>					
EPIA-M700	✓	✓	✓	—	—
EPIA-N700	✓	✓	✓	✓	✓
EPIA-P710	—	—	✓	—	—
EPIA-P700	✓	✓	✓	—	—
EPIA SN	✓	✓	✓	—	—
EPIA LT	✓	✓	✓	—	—
VB7007	✓	✓	✓	—	—
NAB7500	✓	✓	—	—	—
NAS7800	✓	✓	✓	—	—
EITX-3000	✓	✓	—	—	—
EPIA-P720	✓	✓	✓	✓	✓
<b>System products</b>					
VMPC VM7700	—	✓	—	—	—
VIPRO VP7710	—	✓	—	✓	✓
ARTIGO A2000	—	✓	✓	—	—
AMOS-3000	✓	✓	✓	—	—
NSD7200	—	✓	✓	—	—

	Voltage	Fan/ Temperature	CPU/Memory Info	HDD Info	Drive SMART
<b>Mainboards</b>					
EPIA-M700	✓	✓	✓	✓	✓
EPIA-N700	✓	✓	✓	✓	✓
EPIA-P710	—	—	✓	✓	✓
EPIA-P700	—	—	✓	✓	✓
EPIA SN	✓	✓	✓	✓	✓
EPIA LT	✓	✓	✓	✓	✓
VB7007	✓	✓	✓	✓	✓
NAB7500	✓	✓	✓	✓	✓
NAS7800	✓	✓	✓	✓	✓
EITX-3000	✓	✓	✓	✓	✓
EPIA-P720	—	—	✓	✓	✓
<b>System products</b>					
VMPC VM7700	✓	✓	✓	✓	✓
VIPRO VP7710	✓	✓	✓	✓	✓
ARTIGO A2000	✓	✓	✓	✓	✓
AMOS-3000	—	—	✓	✓	✓
NSD7200	✓	✓	✓	✓	✓

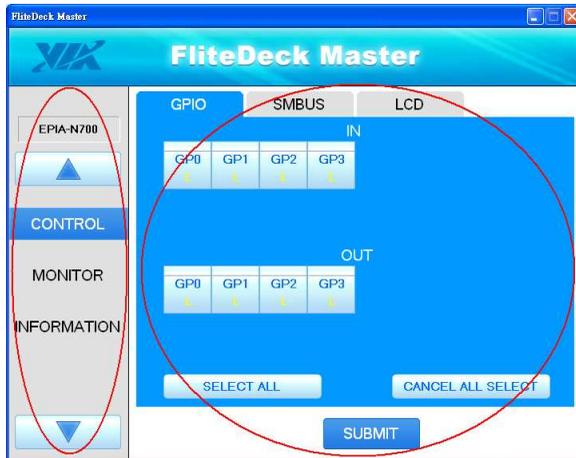
# 3

## Using the FliteDeck Master Application

## USER INTERFACE

The graphical user interface (GUI) makes use of a tabbed design metaphor. Clicking on a tab will display the contents of its corresponding page. If a product does not support the features within the tabbed page, none of the items on the page will be selectable.

The GUI has two portions: the menu and the tabbed pages. Referring to **Figure 1**, the menu area is located on the left side while the tabbed pages are on the right side.



**Figure 1: Sections of the application**

At the top of the menu area, the model name of the product is shown. In the example above, the model name is EPIA-N700.

There are three menu options that can be selected: control, monitor, and information. The menu options can be selected by either clicking on the menu item or by clicking on the up or down arrow buttons.

## CONTROL

The Control option contains three functions: GPIO, SMBus, and LCD.

## GPIO

The GPIO tabbed page is the default page of the FliteDeck Master application. It is the first page that shows when FliteDeck Master launches.



Figure 2: the GPIO page

The GPIO page provides an easy and intuitive graphical interface for controlling the GPIO pins on the mainboard. Users can easily select one or more GP Input pins to read high or low potential. Users can also easily select one or more GP Output pins to send high or low potential.

When the bar above the GP name is green, that means the particular GP pin which it corresponds to is being controlled through the FliteDeck Master settings. To access a GP pin, simply click on the bar to enable it. **Figure 3** shows that GP Input 2 and GP Output 1 are selected and both of their potential is to high.



**Figure 3: Selecting GP pins**

To toggle the potential from low to high or vice versa, click on the “H” or “L” of the desired GP pin.

There are two ways to select all of the GPIO pins. One way is to manually select each bar over the GPIO pins. The second way is to click on the **“SELECT ALL”** button. See **Figure 4** below.



**Figure 4: Selecting all GPIO pins**

Similarly, there are two ways to deselect all of the GPIO pins. One way is to manually deselect each bar over the GPIO pins. The second way is to click on the **“CANCEL ALL SELECT”** button.

## SMBus

The SMBus tab is the second tabbed page in the Control option set as shown in Figure 5.



**Figure 5: the SMBus page**

The SMBus page provides access to read data from or write data to an SMBus device connected with the mainboard. In order to use this feature, the slave address and offset of the target device must be entered into the corresponding fields on the SMBus page.

To toggle between reading and writing modes, click on the blue button immediately below the words “Read/Write”. The blue button will show either an “R” for reading data from the slave address or a “W” for writing data to the slave address. See **Figure 6** and **Figure 7** for examples of reading and writing respectively.



Figure 6: Reading data from device



Figure 7: Writing data to device

## LCD

The LCD page is the third tabbed page in the Control option set as shown in **Figure 8** below.



**Figure 8:** the LCD page

The LCD page provides access for controlling the brightness of the LCD and to turn the LCD backlight on or off.

To adjust the brightness levels of the LCD, click on the left or right arrow. There are 10 levels of brightness as indicated by the brightness meter. The green bars indicate the current level of brightness.

The button at the bottom portion of the LCD page toggles the LCD backlight on and off. Click on the button to control the LCD backlight. See **Figure 9** and **Figure 10** for examples of toggling the LCD backlight.



Figure 9: LCD backlight off



Figure 10: LCD backlight on

## MONITOR

The Monitor option has six functions: Watchdog Timer, Voltage, Fan/Temperature, CPU/Memory Info, HDD Info, and Drive S.M.A.R.T.

### Watchdog Timer

The Watchdog Timer page will be immediately visible in the tabbed page area after selecting the Monitor option.



**Figure 11: the Watchdog Timer page**

The Watchdog Timer page provides access for controlling the onboard Watchdog Timer.

The Watchdog Timer page contains three indicators for showing the progress of the Watchdog Timer. The first indicator is a set of “lamps” (green, yellow, and red from right to left) at the very top of the page. When not lighted, the lamps appear gray in color. At any time, only one color will be lighted.

The three lamps indicate the approximate amount of time left in the timer. The green lamp indicates that 0 to 1/3 of the seconds entered in the “Timeout” field have elapsed. The yellow lamp indicates that 1/3 to 2/3 of the seconds entered in the “Timeout” field have elapsed. The red lamp indicates that 2/3 to all of the seconds entered in the “Timeout” field have elapsed.

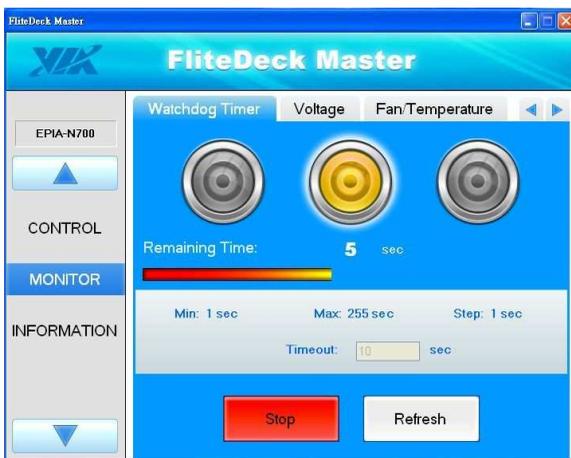
The second indicator (immediately below the first indicator) shows the actual number of seconds in numerical form. These seconds will countdown according to the Watchdog Timer.

The third indicator (immediately below the second indicator) shows a rainbow gradient colored progress bar. The progress bar will contract as the timer counts down.

Figure 12, Figure 13, and Figure 14 show an example of a 10 second timeout.



Figure 12: Green lamp lighted



**Figure 13: Yellow lamp lighted****Figure 14: Red lamp lighted**

## Starting the Timer

To activate the Watchdog Timer, a timeout value must be entered in the “Timeout” field. The timeout value can only be an integer from 1 to 255. Once the timeout value has been set, simply click on the “Start” button to activate the Watchdog Timer.

## Refreshing the Timer

In a real application, the Watchdog Timer should refresh automatically. But for the purposes of debugging, FliteDeck Master includes a “Refresh” button to force a simulation of refreshing the timer. The “Refresh” button is only available when the timer is counting. To simulate refreshing the timer, click on the “Refresh” button.

## Stopping the Timer

To stop the timer, simply click on the “Stop” button.

## Resetting the Timer

The timeout value can be reset as long as the timer is not running. While the timer is running the “Timeout” field is not selectable. First, stop the timer, then input the new value in the “Timeout” field. Then, click on the “Start” button to reset the timer.

## Voltage

The Voltage page is the second tabbed page in the Monitor option set as shown in **Figure 15** below. This page provides certain voltage values from the board/system. If an item is not supported by that board/system, a "0" will be displayed in the value field. The following table shows a description of possible voltages.

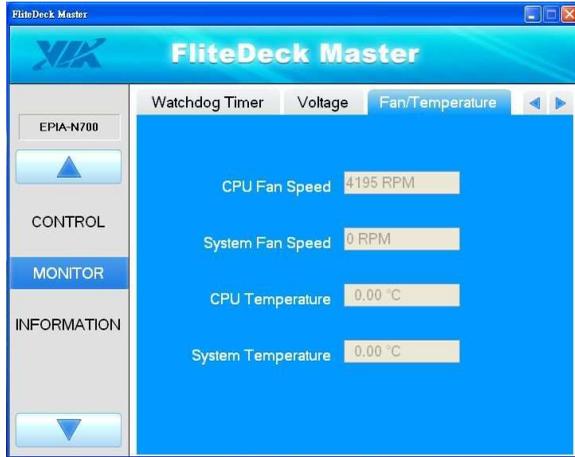
Voltage	Description
+12V	+12V power plane on the board
-12V	-12V power plane on the board
VSB	Standby voltage power plane on the board
+5V	+5V power plane on the board
+3.3V	+3.3V power plane on the board
VBAT	CMOS battery voltage on the board
VCore	Voltage of the CPU core on the board



**Figure 15: Voltage monitoring page**

## Fan/Temperature

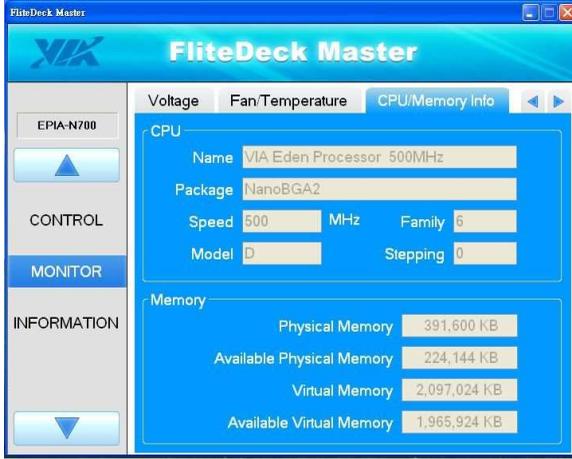
The Fan/Temperature page is the third tabbed page in the Monitor option set as shown in **Figure 16** below. This page provides the values of the CPU fan speed, system fan speed, CPU temperature and system temperature. If an item is not supported by that board/system, a "0" will be displayed in the value field. If the system fan speed and system temperature are supported but the value still shows "0", that means the model doesn't load system fan and thermistor.



**Figure 16**

## CPU/Memory Info

The CPU/Memory Info page is the fourth tabbed page in the Monitor option set as shown in **Figure 17** below. This page provides information about the CPU name, package type, physical memory, virtual memory, etc.

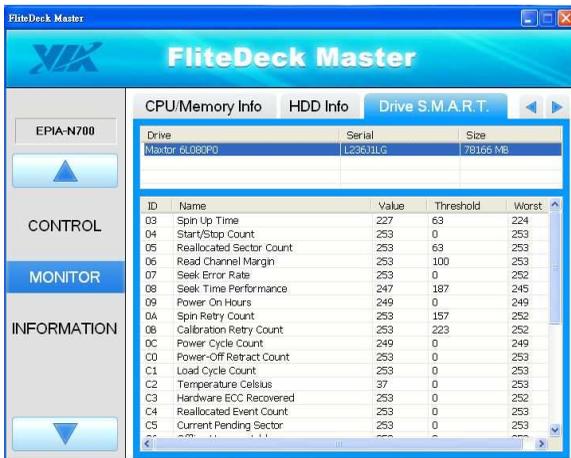


**Figure 17**



## Drive S.M.A.R.T.

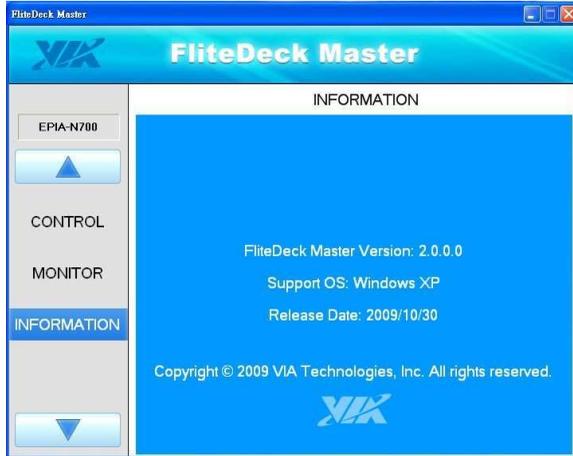
The Drive S.M.A.R.T. page is the sixth tabbed page in the Monitor option set as shown in **Figure 19** below. This page provides information about the hard disk S.M.A.R.T. values.



**Figure 19**

## Information

The Information option displays the software version, supported OS, release date, and VIA's copyright declaration. See Figure 20 below.



**Figure 20: the Information page**

# 4

## Troubleshooting

## FLITEDECK MASTER WON'T START

If the model name stored in the BIOS does not match one of the mainboards or systems listed in the System Requirements, FliteDeck Master will not be able to launch. An error message will appear as shown in **Figure 21** below.



**Figure 21: Error message**

## LCD BRIGHTNESS ARROWS ACTING WEIRD

Regarding the LCD brightness control shown in **Figure 8**, the corresponding dimmer direction of the left and right arrows depends on the LCD panel inverter. Different inverters may cause the LCD brightness control arrows to behave in reverse.