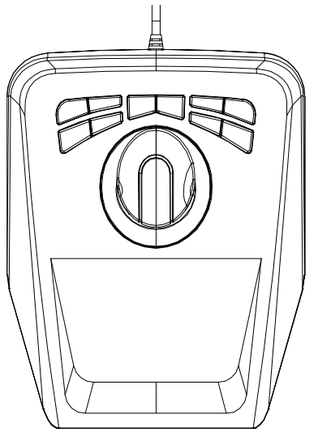
三维网络键盘
使用说明书



DS-782UKB
请在安装使用前仔细阅读本手册

第一部分：OEM Mappe 软件操作

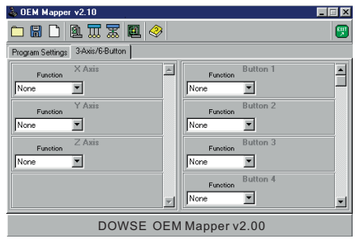
1.1 概述

OEM Mapper软件可以对各种 DS OEM摇杆设备进行编辑，实现控制鼠标，摇杆和基于字符的功能。它包含了使用界面程序，设备配置等。这样可以让你对各种设备的操作进行限定。这些功能的应用需依据DS设备配置和驱动子系统。

OEM Mapper软件是使用者自己设置配置范围，即定义执行所需功能的USB控制设备(轴，按钮等)和各种系统硬件(鼠标，键盘，摇杆)之间的关系。配置文件可通过OEM Mapper GUI来生成(DSMapper.exe)一旦配置文件被创建好，就可以通过GUI上载到驱动子系统，同时需要的控制功能也就生效。

1.2 OEM Mapper用户界面

DS Mapper.exe 文件包含了OEM 图形界面。这个图形界面是直接操作设备的配置表。这个界面必须在OEM Mapper软件安装过程种中安装好，同时这个界面提供了创建和编辑用户所需要的配置文件。这个部分我们会介绍OEM Mapper界面上各个部分的简要描述。接下来我们来看一下更具体的信息。当你启动软件的时候，你将看到如下显示的界面。

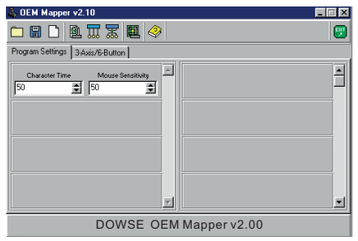


这个界面被分为3个区域。顶部是工具栏用来控制界面基本功能。

剩下的区域是用来设置你的设备的按钮和轴的功能。左边是轴程序部分。它包括数据输入部分来控制轴控制的范围。轴程序最多可以编辑4个方向。如果设备具备超过4个方向的功能，那可以在右边部分的滚动条来设置这是滚动条就可以对剩下的轴向进行编辑。确切的轴程序编辑，请参考使用说明中的轴程序设置部分。

在屏幕右边的标签部分是按钮程序设置。除了按钮功能键比轴向多以外，其他设置与轴向设置基本一致。详细情况参考使用说明中的按键程序设置部分。

下图还有两个常用的设置：



在最左边的标签“程序设置，Program Setting”，选择这个标签，你将会得到如下的屏幕信息。

这里有两个编辑框“Character Time” and“Mouse Sensitivity”来控制相关的参数。

a、特征时间
特征时间是用来控制字符的发送速度。在有些情况下字符如果发送太快了将会丢失一些字符。增加这个数值来减慢字符的发送速度来解决这个问题。具体时间用毫秒来表示。

b、鼠标灵敏度
鼠标的灵敏度设置是用来设置光标移动的反应速度当摇杆移动控制器件的时候。它用来调节光标移动的速度当摇杆给了一个轴的位置。它本身不影响正常的鼠标系统。默认的灵敏度是50%

1.3 按钮设置

1.3.1 编辑鼠标按键

OEM Mapper可以设置鼠标按键来当鼠标使用。在功能选项“Function”选择“Mouse”按键。下拉菜单将会在右侧显示。在菜单里，可以选择按键1或者键2只支持两个鼠标按键。

任何摇杆都可以设计来控制鼠标系统的X.Y.Z轴。鼠标的X,Y轴控制会在屏幕上光标显示。而Z轴的操作将显示成“Scroll Wheel”，X和Y轴可以用程序进行两种模式的操作。

第一种是普通模式。这种模式当控制被执行结束时自动回复到中心位置。当操作离开中心位置时，光标将会显示在相同的方向上与中心位置的距离。当移动到中心位置时，光标降停止在目前的位置。这个与鼠标的行为是相似的。第二种方式是直接模式。这种方式类似离合器类型的摇杆，这样可以使鼠标的光标跟踪摇杆方向的位置。例如，你将摇杆移动至最左边，光标就会出现在屏幕的最左边角落。当这个模式的标准摇杆和离合器一样，他将很难使用像普通模式那样，停止操作时回复到中心位置。

鼠标Z轴就像滚轮鼠标一样，当放开操作时将会回复到中心位置。使用滚轮移动到一个方向来表明轴与中心位置的距离，相反也是移动到另一边来标示另一个方向的距离。移动的距离通过与中心位置的移动距离来标示。

在功能栏上用鼠标来选择“普通”或者“直接”模式。一个下拉菜单将会在你选择X,Y,Z轴的右侧出现。如果你是“直接”模式，只有X和Y轴可供选择。如果要选择Z轴，必须选择“普通模式”。

1.3.2 编辑摇杆按键

OEM Mapper可以编辑一般的摇杆按键。在功能选项“Function”选择“Joystick ”按键。下拉菜单将会在右侧显示。在菜单里，可以选择摇杆按键#1或者#32.

你可以指定任意一个摇杆上的轴来控制游戏控制器的轴。在功能部分选择摇杆将会在下拉菜单里面出现各种轴。如果你有连接多个器件，摇杆ID将会显示响应器件的指示同时显示在器件的标签上。左极限默认为轴和摇杆#1的按键，然后左极限默认为#2摇杆，依次类推。

1.3.3 发送字符程序

在功能盒上选择“发送字符”，右边会出现一个编辑框，你可以输入你想通过按钮发送的字符。字符之间要有一个空格。例如输入“a b c”将会发送“abc”单一字符可以直接输入。大写单一字符可以通过输入大写字符，例如“a”如果直接输入就是“a”，如果用左边转换后就会在系统里看到大写的“A”，其他字符是功能键。名称字符是简单的字符没有一个等量字符来代替。例如“Space”” tab”之类。这些字符在索引部分有一个完整的清单。

如果按键被按住一个字符，就会导致重复某个字符。多个字符只能发送一个表示字符。强制发送一个单一字符，会被默认为“NULL”。你可以程序控制发送一个“NULL a ”，它只会发送一个“a”，因为NULL字符意味着指令有两个字符，但不重复。就像之前所说，一般单个字符可以通过大写字符代码来输入。但是字符串就不可以用这个方式来输入，而是要通过ALT或者CTL来转换。你可以通过SHF,ALT,CTL来转换。例如“CLT c”等同于发送“Control-C”ALT,SHF,CTL转换是唯一的。例如当实际按键被生成时转换键会被按住。ALT,SHF,CTL也可以被认为是独立的按键指令。进行这个操作你需要使用实际的按键名字。这些按键名字请参考附表。

轴也可以编程序来发送字符。有两种模式可以使用：上下程序和定点程序，具体如下。

1.3.3.1、上下程序：
上下程序是用来向一个方向发送一个特殊字符，向另一个方向发送另一个特殊字符的情况。 例如，当你就按要求用一个键“+”来要求一个递增量，另一个键来标示“-”递减量。如果使用上下程序，选择功能盒后将显示一个功能程序代码流。像类似的“S=10,U=x,D=y,C=z”表示轴程序要发送字符10，“Up”字符是“X”，“Down”字符是y,”Center”字符是“z”。

这个本身不能编辑，但可以通过点击来弹出的对话框，这样你就可以在这里输入这些字符代表的意义。

1.3.3.2、位置程序：

位置程序是用来在需要发送一连串字符的控制情况下。例如，要分别发送10个位置的信息“0~9”就可以通过中间加空格来一次性编辑发送。

摇杆程序的字符输入遵循相公的规则。备注：对于UP/DOWN程序，只有字符可以被分配到各个方向。字符可以大写或者通过SHF,CTL,ALT来修改。

1.4.1、校准

OEM Mapper使用他们专门的测试和校准屏。点击工具条上的“test/ Calibration”按钮或选择 Widows 游戏控制应用程序里其中一个OEM Mapper相关的设备，然后按下Properties 按钮.

当OEM Mapper处于直接模式时，操作者只能从windows 游戏控制应用程序中校准。当处于制图模式，设备在游戏控制应用程序中显示“DS OEM Device 1”，“DS OEM Device 2”等等。如果操作者点击properties按钮，将会被通知： 在校准之前你必须退回到直接模式。

你可以从OEM mapper图形用户界面校准。不管当前的模式知道实际的设备是什么 还是 widnows 游戏控制应用程序仅仅知道已经公告的设备。

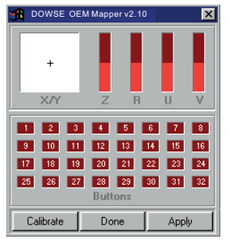
OEM Mapper内部校准:

从OEM Mapper图像用户界面开始校准；点击工具条上 Calibration/Test Button具体如下：

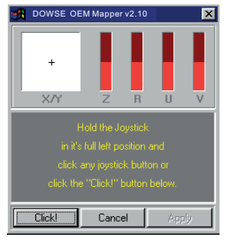
点击按钮 将看到一段对话：列出你看到的控制器。然后选择其中想要测试和校准的一个。突出要测试和校准的设备 然后点击Ok..将被转到测试屏幕。

具体如下:
测试屏幕具有相当的自我解释说明功能。屏幕顶部展开至6个轴，下面是展开有32个按钮。显示的轴和按钮的实际数目取决于当前被测试的设备。因此有可能看到轴和按钮数目比上面图示显示的少。

进行校准:
开始进行校准；点击屏幕按钮上的“Calibrate”按钮。屏幕上的按钮显示如下图所示：



根据黄色的提示去完成校准。当你点击按钮，将显示另外下一段提示：当校准完成后，出现一条绿色的信息告知各项操作正常。根据你是想保存还是取消校准，分别点击 apply 或者 cancel 按键。任意操作将回到测试屏幕。



从游戏控制应用程序校准：
从 Windows Game Controllers测试和校准过程与从图形用户界面相同，相同的测试校准程序将出现，遵从同样的操作步骤。

1.3.5、基本的编程过程

用OEM Mapper创建新的配置文件相当简便。这部分介绍相关步骤，配置文件创建的基本步骤。

不管创建何种形式的配置文件，其基本的创建步骤是相同的。

1.3.5.1.启动 OEM Mapper 用户界面，程序开始每一个OEM检测到每一个活性设备将相应有一个设备工具条。

1.3.5.2.点击工具条上 NEW 按钮 清除图形

1.3.5.3.设置每个工具上的轴执行需要的操作，通过选择相应的工具标志选择特别的工具按 save 键将图形保存到硬盘。

第二部分：其他应用

2.1、DSStar应用

DSstar是一个小的应用。你可以通过重置窗口位置来重置你的地图。一般OEM地图默认“Direct”模式。通过选择“Enable Map”按键你可以选择你想要的地图。DSstar会进行自动保存，不需要每次重新设置。

使用DSstar你要在“Startup”文件夹创建一个快捷文件DSStart.exe。这个快捷文件要放在如下位置：\ProgramFiles\DS Products\OEM Mapper具体如何创建文件夹可以参考Windows Help的信息。

2.2、DSDelete 应用

DSDelete 是用来从注册表里完全移除DS USB设备信息。在移除DS USB设备注册信息前必须拔出相关的DS USB设备。

DSDelete功能使用步骤。 打开开始菜单并找到“OEM Mapper”下面的“DS Products”选项。这是你会看到两个小的提示：一个是：删除所有DS USB设备，另一个是：只删除预装程序。选择“Delete All”选项删除预装程序外还删除其他DS的控制程序。删除前先拔出所有所有相关设备。

如果你以后还要去安装其他的DS摇杆设备或者添加入这个程序种，你只要删除预装程序就好了。这样可以不需要重新安装DS程序。后面安装的设备程序会自动成为DS程序的一部分。所以要实现这样就要在删除时选择“Delete DS Pro Pedals...”按钮。一旦预装程序被删除后，插入新的设备通过新的硬件向导来选择安装。装好后就可以导入新装的预装程序再次安装新硬件。

第三部分：OEM Mapper软件安装

在 Windows 2000 and Windows XP也可以直接安装。不过需要进入管理员帐户才可以，或者您所在的帐户权限具有管理员权限的。主要包括安装程序，安装驱动和插入设备。

具体步骤如下：

3.1.插入DS USB设备，他会自动识别为HID 设备。请最好参考下面安装USB设备的信息。

3.2.通过Setup.exe文件运行安装程序。它会自动将OEM Mapper要求和安装的文件生成相关文件夹和注册表。

3.3.运行OEM Mapper 程序里安装的DSMapper.exe程序来校正设备或控制器。

备注：安装USB设备的注意事项

一旦OEM Mapper已经被安装运行好了以后，USB设备只要插入就可以用了。Pnp系统会自动识别他们，然后会提示你安装使用程序，就像其他的USB设备一样。你可能会看到Windows系统提示你你已经安装了这个文件，是否要保持这些文件。你要选择，总是保持这些文件。这样系统会自动升级控件，并把摇杆系统需要的文件自动放入您刚才安装的文件夹。

如果你有各种其他设备想一起连接的话，插入所有你想连接的DS设备。最好是每个设备都一直使用同一个端口。如果你换端口的话Windows2000/XP系统又要重新搜索设备让你冲洗安装日志文件夹。这样你可以减少去安装的时间。

卸载 Windows 2000/XP系统的 OEM Mapper

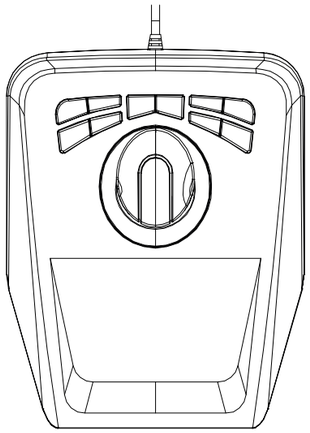
下面是卸载步骤,你必须是以管理员帐户来进行以下操作。

a.拔出DS USB设备。

b.进入Windows控制面板选择“添加/删除程序”激活这个选项后按提示移除它。这样会删除所有相关的驱动程序。

c.一旦完全卸载后，请重新启动电脑删除保存的文件。

3D Keyboard Controller
Users'Manual



DS–782UKB

Read This manual carefully before use

First Part：OEM Mapper Operation

1. 1 OEM Mapper Overview

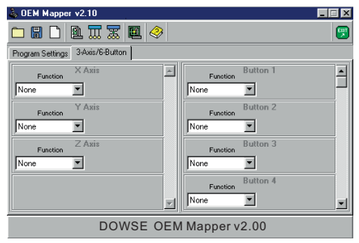
The OEM Mapper is a utility program which allows you to program the various DS OEM Joystick devices to control mouse, joystick, and character-based function. It consists of a User Interface program, DSMapper.exe, that allows you to define the actions that the various device are to perform. To execute these functions, it depends on the DS OEM Mapper Driver Subsystem.

The OEM Mapper uses a user-defined "map" file to define the relationship between the controls on the actual USB devices (axes, buttons, etc.) and the virtual system devices (mouse, keyboard, and joysticks) that carry out the appropriate functions.

The map file is created using the OEM Mapper GUI, CHMapper.exe. Once the map has been created, it is downloaded to the driver subsystem using the GUI and the desired control functions become available.

1. 2 OEM Mapper GUI

The DS Mapper.exe file contains the OEM Mapper GUI. The GUI is the key to programming and operating your DS USB devices under the OEM Mapper. An entry for this will have been created in the OEM Mapper Group when the Setup program was run. The GUI provides the functions necessary to create and edit user maps. This section gives a brief description of the various areas on the OEM Mapper GUI screen. The following sections will cover these areas in more detail. When you start the Mapper GUI, you'll see a screen that looks something like this:



The screen is generally divided into three areas. At the top there is a Toolbar that controls the basic functions of the mapper GUI. Below that are a set of tabs that select which device you want to program.

Below these buttons are the "Device Tabs". There is one tab designated Program Settings which has to do with values associated with the program as a whole. Specifically, there are settings there for the Character Time and the Mouse Sensitivity. Additionally, there will be a tab for each supported DS USB device that the GUI detected on program startup. If no devices are detected, the GUI will display a dialog indicating that fact and then will exit.

Programming Axes

As with the button functions, the various axes on the device can be programmed to operate in several different ways. based commands.

Programming for No Action

To program the axis to perform no action at all, select "None" in the Function box for the axis.

Programming for Mouse Control

Any axis can be designated to control either the system Mouse X, Mouse Mouse Y, or Mouse Z axis. The Mouse X and Mouse Y axes control the position of the cursor on the screen. The Mouse Z axis acts like a "Scroll Wheel".

X and Y Axes

The Mouse X and Y axes can be programmed to operate in either of two modes. The first is "Normal" mode. In this mode, the axis is presumed to return to center when the control is released. When the axis is moved off center, the mouse cursor will move in the appropriate direction at a rate determined by how far the axis is moved. When the axis is returned to center, the cursor will stop at the current position. This approximates the same behavior as a normal mouse would have.

The second mode is "Direct" mode. This mode is intended for use with the "clutch-type" joysticks to allow the mouse cursor to track the position of the joystick directly, i.e. moving the stick to its full forward and full left position will move the mouse cursor to the upper left corner of the display. While this mode does work with standard joysticks as well as the clutch -type, they are difficult to use as they always bring the cursor back to near the mid-screen position when they are released and allowed to return to center.

Note that in "Direct" mode, a normal mouse will still be seen and it will work okay, but the slightest movement of the programmed axis will cause the cursor to jump to the current position of the programmed axis. This can be a bit of trouble if the programmed axis is "jitt-ering" a bit as can happen if the axis happens to be set a position which is at a point very near to where the data being returned by the axis is changing value. If the returned data changes by even a single count, then the axis will continually jump to the programmed position using the standard mouse can prove difficult. A slight adjustment in the programmed axis to bring it to a stable value will normally stop this behavior.

Z Axis

The Mouse Z axis acts as the scrolling wheel on a normal mouse and is always presumed to return to center when released. Moving the axis off center in one direction causes the scrolling to move one way, off center in the other direction causes the scrolling to move the other way. The scroll rate is controlled by how far off center the axis is moved.

Setting the Mouse

To use the mouse, select "Mouse (Normal)" or "Mouse (Direct)" from the function box and a drop-down list will appear to the right from which you can select the X, Y, or (in "Normal" mode) Z mouse axes. If you're "Mouse (Direct)", only the X and Y axes will be available for selection. To program the Z axis, the desired axis must be set to "Mouse (Normal)".

Programming for Joystick Control

You can designate any axis on the device to control an axis on a joystick in Game Controllers. Selecting Joystick in the Function field will cause a drop-down list to appear with the various axes that are available. If you have multiple devices connected, the joystick IDs that they use will correspond to the ordering of the devices as shown on the Device Tabs, with theleft-most tab defining axes and buttons for Joystick #1, then second left-most tab defining Joystick #2, etc.

Programming an Axis to Send Characters

An axis can also be programmed to send characters. There are two possible modes that can be used: Up/Down programming and Position programming. These modes are explained below.

Up/Down Programming

Up/Down programming is used where the axis is to send one particular character when it's moving in one direction, another particular character when it's moving in the other direction. An example of where this might be used where some software required a "+" key for an incremental increase, a "-" key for an incremental decrease. To use Up/Down programming, select that in the Function box. A box will appear that shows a string representation of the programmed function. It will look something like "S=10 U=x D=y C=z" which indicates that the axis is programmed to send 10 characters for full control travel, that the "Up" character is to be "x", the "Down" character is to be "y", and the "Center" character is to be "z".

The field itself is not editable, but clicking on it will pop up a dialog that allows you to enter the Step Count and the Up, Down, and Center characters

Note that a special case occurs when the step value is 1. In that case, the character will be held down continuously so long as the axis is off center. Normally, the Up/Down characters are sent as if they were pressed and immediately released.

A word of warning when using the single-step Up/Down controls. It's recommended that this type of programming not be applied to controls such as the throttle wheel which do not spring back to either a center or a minimum position when released. If they're left in a position other than these, the control will "hold the key down" and it can interfere with normal system operation. Also, be sure that the axis is properly calibrated before using this type of programming. An uncalibrated control can appear off-center or off-minimum even if the control is physically in the right position. Again, this can result in an apparent "stuck" key and interfere with normal operation.

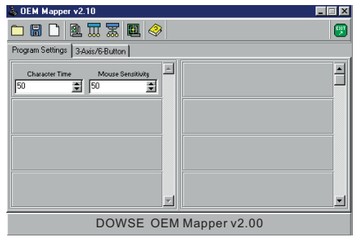
Position Programming

Position programming is used where the control needs to send a set of particular character based on the position of the control. An example would be a throttle that used the keys0, 1, 2, 3, 4, 5, 6, 7, 8, and 9 to set the throttle to one of 10 positions. The characters are simply entered into the edit box separated by spaces, i.e. " 0 1 2 3 4 5 6 7 8 9".

Entry of characters for axis programming follows the same basic rules as described for entry of button characters and the same conventions apply. Note that, for Up/Down programming, only one character can be assigned to each direction. The character may be uppercased or use the SHF, CTL, or ALT modifiers, though.

Program Settings Dialog

The far left Device Tab is labeled "Program Settings". Selecting this tab, you will be presented with a screen that looks like this:



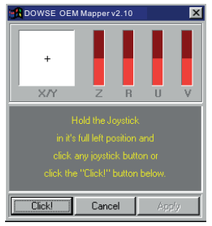
There are two edit boxes that labeled "Character Time" and "Mouse Sensitivity" that control a couple of parameters that apply to the map as a whole.

Character Time

The Character Time is used to control how rapidly characters can be sent by the OEM Mapper. In some circumstances if the characters are sent too fast they will be missed. Increasing this value slows down the rate of character transmission and will generally get around this problem. The specified time is expressed in milliseconds (very approximate)

Mouse Sensitivity

The Mouse Sensitivity setting governs how fast the mouse cursor will move for a given control movement when the Mouse device is assigned to one of the axes. It is used to adjust how fast the mouse cursor moves for a given axis position. The setting does not affect the normal system mouse at all. The default for the Mouse Sensitivity is 50%.



Follow the yellow prompts to complete the calibration. When you click the button, the next prompt will be displayed. When calibration has been completed, a message in green will come up telling you that things went properly. Click "Apply" or "Cancel" depending on whether you want to save the calibration or not. In either case you'll be returned to the Test Screen.

Calibrating from the Game Controller Applet

The procedure for testing and calibrating from the Windows Game Controllers applet is identical to that for the GUI. The same Test and Calibration applets will appear and the same procedure should be followed.

Installing the OEM Mapper in Windows 98/2000/XP

Installation of the OEM Mapper in Windows 2000 and Windows XP is straightforward but YOU MUST BE LOGGED IN AS AN ADMINISTRATOR OR BELONG TO A GROUP THAT HAS ADMINISTRATIVE PRIVILEGES to install the OEM Mapper. This includes running the Setup program, installing the OEM Mapper Drivers, and and plugging the device in for the first time.

1. Unplug all your DS USB Devices.
2. Run the Setup.exe program from the distribution disk. This will copy the files and set up the folders and registry entries that the OEM Mapper requires and install the base drivers for the OEM Mapper.
3. Plug in the various DS USB devices you want to use.
4. Run the CHMapper.exe file that was installed in the DS OEM Mapper program group to calibrate and configure your DS USB devices.

Appendix

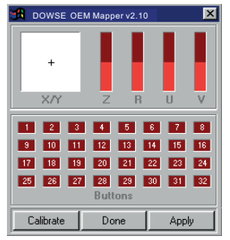
OEM Mapper Keycodes

The OEM Mapper recognizes most standard characters directly. Any key that can be entered as a single character ("a", "B", "%", "*", etc.) can be entered directly. If the key requires a SHF, that will be generated automatically when the shifted character is entered.

Calibration from Within the OEM Mapper

To start the calibration from the OEM Mapper GUI, click the Calibration/Test Button on the Tool Bar. The Calibration Button looks like this:

When you click this button, you'll be taken to a dialog that lists the detected controllers so you can select the one you want to test or calibrate. Highlight the device you want to test or calibrate, then click "Okay". That will take you to the test screen. It looks like this:



The test screen is fairly self-explanatory. Across the top are displays for up to 6 axes, below that is a display for up to 32 buttons. The actual number of axes and buttons which are displayed depends on the device that's currently being tested, so you will probably see less than what is shown in the above graphic.

The test screen is fairly self-explanatory. Across the top are displays for up to 6 axes, below that is a display for up to 32 buttons. The actual number of axes and buttons which are displayed depends on the device that's currently being tested, so you will probably see less than what is shown in the above graphic.

Doing the Calibration

To begin the calibration procedure, click the "Calibrate" button at the bottom of the screen. The "Buttons" display will disappear and the screen will look like this:

For other keys, a key name is used. This is a complete list of the key names recognized by the OEM Mapper.

Keypad Keys

Key	Name
Keypad -	KP-
Keypad .	KP.
Keypad *	KP*
Keypad /	KP/
Keypad +	KP+
Keypad 0	KP0
Keypad 1	KP1
Keypad 2	KP2
Keypad 3	KP3
Keypad 4	KP4
Keypad 5	KP5
Keypad 6	KP6
Keypad 7	KP7
Keypad 8	KP8
Keypad 9	KP9
Keypad Del	KPDEL
Keypad Down Arrow	KPDOWN
Keypad End	KPEND
Keypad Enter	KPENT
Keypad Home	KPHOME
Keypad Ins	KPINS
Keypad Left Arrow	KPLEFT
Keypad PgDn	KPPGDN
Keypad PgUp	KPPGUP
Keypad Right Arrow	KPRIGHT
Keypad Up Arrow	KPUP

Main Keyboard

Key	Name
Backspace	BKSPC
Caps Lock	CAPS
Enter	ENT
Escape	ESC
Left Alt	LALT
Left Control	LCTL
Left Shift	LSHF
NumLock	NUMLOCK
Right Alt	RALT
Right Control	RCTL
Right Shift	RSHF
Scroll Lock	SCRLK
Space	SPC
Tab	TAB

Auxiliary Pad Keys

Key	Name
Keyboard Del	KBDEL
Keyboard Down Arrow	KBDOWN
Keyboard End	KBEND
Keyboard Home	KBHOME
Keyboard Ins	KBINS
Keyboard Left Arrow	KBLEFT
Keyboard PgDn	KBPGDN
Keyboard PgUp	KBPGUP
Keyboard Right Arrow	KBRIGHT
Keyboard Up Arrow	KBUP

Function Keys

Key	Name
F1	F1
F2	F2
F3	F3
F4	F4
F5	F5
F6	F6
F7	F7
F8	F8
F9	F9
F10	F10
F11	F11
F12	F12