

Macintosh Sample Code Notes



Developer Technical Support

#17: TbltDrvr

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Components: TbltDrvr.a

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'ADBS' resources are loaded and executed at boot time (before INIT 31), and they are made of two main parts, the installation or initialization code and the the actual driver.

In this example, the installation portion allocates memory in the system heap for the service routine and the “optional data area.” It installs the driver using the Apple Desktop Bus (ADB) Manager call `_SetADBInfo`.

Generally speaking, ADB devices are intended to be user input devices. The ADB Manager polls the bus every 11 milliseconds to see if a device has new user input data. This polling is accomplished by sending a talk R0 command to the last active device. The last active device is the last device that had data to send to the host. If another device has data, it can request a poll by sending a service request signal to the host.

When a device has responded to a poll, the ADB Manager will call the driver to process the data. This call is done a interrupt time (level 1), and the driver is passed the data, by getting a pointer to a Pascal string which contains the actual data.

In this example, the data is in the form of a pointing device’s coordinates and button state. When the driver gets the data, it stores the coordinate information in `RawMouse` and `MTemp`. We stuff both `RawMouse` and `MTemp`, because the tablet is an “absolute” device. It also checks the state of the button against `MBState`, and if there has been a change, it will update `MBState` and post either a mouse-up or mouse-down event, as appropriate.

Note: This code demonstrates how to move the cursor position. This information is meant for input device drivers only; this technique should not be used by applications to move the cursor. Moving the cursor is bad user interface, and nobody likes a bad user interface, so “Just Say No.”