

SysEnvRec structure

#include <OSUtils.h>

```

typedef struct SysEnvRec {
    short    environsVersion;    2    0    version of this structure
    short    machineType;        2    2    Macintosh type code, -2...4 (see below)
    short    systemVersion;      2    4    hiByte= major, lowByte= minor; 0=
                                     pre-4.1
    short    processor;          2    6    1=68K, 2=68010, 3=68020; 0=newer
    Boolean  hasFPU;             2    8    TRUE = has MC68881 numeric coprocessor
    Boolean  hasColorQD;         2    10   TRUE = supports color Quickdraw functions
    short    keyboardType;      2    12   Keyboard type code (see below)
    short    atDrvrvVersNum;     2    14   AppleTalk version if open (else, 0)
    short    sysVRefNum;         2    16   Volume ID (or working dir) of open System
                                     file
} SysEnvRec;                                18

typedef SysEnvRec *SysEnvPtr;

```

Notes: This structure is obtained via a call to **SysEnviron**s. Its size may increase in the future and new constants may be returned in any of the fields. For this reason, your application should be prepared to handle unexpected values if it calls **SysEnviron**s. This topic discusses the data returned by version 1 of the structure; ie, when you call **SysEnviron**s(1,...).

Machine Type

The machineType field will hold one of the following:

envXL	-2	Mac XL / Lisa
envMac	-1	Original Mac with 64K ROMs
envMachUnknown	0	Some Mac newer than Mac II
env512KE	1	Mac 512K Enhanced
envMacPlus	2	Mac Plus
envSE	3	Mac SE
envMacII	4	Mac II
envMacIIX	5	Mac IIX
envMacIIcx	6	Mac IIcx
envSE30	7	Mac SE30
envPortable	8	Mac Portable
envMacIIci	9	Mac IIci
envMacIIfx	11	Mac IIfx
envMacClassic	15	Mac Classic
envMacIIsi	16	Mac IIsi
envMacLC	17	Mac LC
envMacQuadra900	18	Mac Quadra 900
envMacPowerBook170	19	Mac PowerBook 170
envMacQuadra700	20	Mac Quadra 700
envMacClassicII	21	Mac Classic II
envMacPowerBook100	22	Mac PowerBook 100

envMacPowerBook140	23	Mac PowerBook 140
envMacQuadra950	24	Mac Quadra 950
envMacLCII	35	Mac LC II
envMacPowerBook145	52	Mac PowerBook 145

System Version

The systemVersion field is to be interpreted as two 1-byte values. The hi byte is the major version number; the lo byte is the minor release number. For instance, 0x0410 is version 4.1 and 0x0604 is version 6.4. Thus, you can easily find if a system is the same or later than a specified release:

```
if ( theSysEnv.systemVersion > 0x0600 ) { ... it's 6.0 or later... }
```

CPU / FPU Type

The processor field will hold one of the following:

envCPUUnknown	0	some CPU newer than 68020
env68000	1	MC68000 processor
env68010	2	MC68010 processor
env68020	3	MC68020 processor
env68030	4	MC68030 processor
env68040	5	MC68040 processor

The hasFPU field will hold one of the following:

<u>FALSE</u>	0	no 68881 available (other FPU may be, though...)
<u>TRUE</u>	1	MC68881 Floating-Point processor available

Keyboard Type

We are advised to attempt to write keyboard-independent programs and you may (attempt to) do so by using charCodes rather than keyCodes (see GetNextEvent). Anyway, the keyboardType field will hold one of the following:

envUnknownKbd	0	Some newer keyboard than listed below
envMacKbd	1	Original Keyboard See Original Mac Keyboard
envMacAndPad	2	Original with separate keypad
envMacPlusKbd	3	Macintosh Plus Keyboard. See Mac Plus Keyboard
envAExtendKbd	4	Apple Extended Keyboard. See Extended Keyboard
envStandADBKbd	5	Standard ADB keyboard. See Mac II Keyboard
envPrtlADBKbd	6	Portable keyboard
envPrtlISOKbd	7	Portable keyboard (ISO)
envStdISOADBKbd	8	Apple Standard Keyboard (ISO)
envExtISOADBKbd	9	Apple Extended Keyboard (ISO)
envADBKbdII	10	Apple Keyboard II
envADBIKbdII	11	Apple Keyboard II (ISO)
envPwrBkADBKbd	12	PowerBook Keyboard
envPwrBkISOKbd	13	PowerBook Keyboard (ISO)

"Blessed Folder"

The sysVRefNum returns the volume ID or working directory ID of the directory containing the most recently opened System File. This directory

is a good place to store and find general control and configuration files.
Using **SysEnvirons** to learn the location of the Blessed Folder is better
than the old method of checking the boot disk.