

Gestalt

Get information about the operating environment

#include <GestaltEqu.h>

Gestalt Manager

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| <u>OSErr</u> | Gestalt (<i>selector, response</i>); |
| <u>OSType</u> | <i>selector</i> ; Gestalt selector code |
| <u>long</u> | <i>*response</i> ; 4-byte return result |
| | returns <u>Error Code</u> ; 0=no error |

Gestalt provides your application with information about specific hardware and software features.

selector is either a predefined code or an application-defined code requesting information on a specific hardware or software feature (see **Using the Gestalt Manager** for a list of selector codes).

response is the return value that provides the requested information. **Gestalt** must already recognize the selector parameter in order to return a response.

Returns: an operating system Error Code.
It will be one of:

| | | | |
|--|-------------------------|---------|-------------------------------|
| | noErr | (0) | No error |
| | gestaltUnknown | (-5550) | Could not obtain the response |
| | gestaltUndefSelectorErr | (-5551) | Undefined selector |

Notes: **Gestalt** returns the results from all function selectors in a 4-byte long integer. Where not all 4 bytes are needed, the result is expressed in the low-order bytes.

Being passed a predefined selector code doesn't cause **Gestalt** to move or purge memory and therefore may be called even at interrupt time. However, application-defined selector codes may move or purge memory and applications can alter **Gestalt's** predefined selector functions. Given all of that, you should always assume that **Gestalt** might always move or purge memory.

THINK C 5.0 or later, THINK Pascal 4.0 or later and MPW 3.2 or later contain glue that make it possible to call **Gestalt** under System versions which do not support **Gestalt** (earlier than System 6.0.4). When possible, the glue will call other traps in order to obtain the information requested. If the selector is not available, a gestaltUndefSelectorErr will be returned. Note that if you are programming in assembly language, this glue is not provided. The following selectors are made available by this glue:

gestaltVersion
gestaltMachineType
gestaltSystemVersion
gestaltProcessorType
gestaltFPUType
gestaltQuickdrawVersion
gestaltKeyboardType
gestaltAppleTalkVersion
gestaltMMUType

gestaltPhysicalRAMSize
gestaltLogicalRAMSize

All other selectors will return a gestaltUndefSelectorErr under System versions which do not support **Gestalt**..

See **Using the Gestalt Manager** for additional sample code which demonstrates the use of **Gestalt**.

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| Example |
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```
#include <GestaltEqu.h>
#include <stdio.h>

static char *processor[] = {
    "<unknown>",
    "mc68000",
    "mc68010",
    "mc68020",
    "mc68030",
    "mc68040"
};

static char *fpu[] = {
    "<none>",
    "mc68881",
    "mc68882",
    "mc68040 built-in"
};

main ()
{
    long gestaltAnswer;
    OSErr gestaltErr;

    /* Determine whether we can use Gestalt or not, and if so, what version */
    gestaltErr = Gestalt (gestaltVersion, &gestaltAnswer);
    if (! gestaltErr) {
        printf ("Gestalt is available, version %ld\n", gestaltAnswer);
        printf ("\n");

        /* Determine the processor type */
        Gestalt (gestaltProcessorType, &gestaltAnswer);
        if (gestaltAnswer > 5) /* A constant for a processor we don't */
                               /* recognize has been returned */

            printf ("Processor type: %s\n", processor[0]);
        else
            printf ("Processor type: %s\n", processor[gestaltAnswer]);

        /* Determine the coprocessor type */
        Gestalt (gestaltFPUType, &gestaltAnswer);
        printf ("FPU type: %s\n", fpu [gestaltAnswer]);
    } else
```

```
    printf ("Gestalt not available\n");  
}
```