

**NAME**

**sysexits** - preferable exit codes for programs

**SYNOPSIS**

```
#include <sysexits.h>
```

**DESCRIPTION**

According to style(9), it is not a good practice to call `exit(3)` with arbitrary values to indicate a failure condition when ending a program. Instead, the pre-defined exit codes from **sysexits** should be used, so the caller of the process can get a rough estimation about the failure class without looking up the source code.

The successful exit is always indicated by a status of 0, or **EX\_OK**. Error numbers begin at **EX\_\_BASE** to reduce the possibility of clashing with other exit statuses that random programs may already return. The meaning of the codes is approximately as follows:

- |                            |   |
|----------------------------|---|
| <b>EX_USAGE</b> (64)       | The command was used incorrectly, e.g., with the wrong number of arguments, a bad flag, a bad syntax in a parameter, or whatever.   |
| <b>EX_DATAERR</b> (65)     | The input data was incorrect in some way. This should only be used for user's data and not system files.  |
| <b>EX_NOINPUT</b> (66)     | An input file (not a system file) did not exist or was not readable. This could also include errors like "No message" to a mailer (if it cared to catch it).  |
| <b>EX_NOUSER</b> (67)      | The user specified did not exist. This might be used for mail addresses or remote logins.   |
| <b>EX_NOHOST</b> (68)      | The host specified did not exist. This is used in mail addresses or network requests.   |
| <b>EX_UNAVAILABLE</b> (69) | A service is unavailable. This can occur if a support program or file does not exist. This can also be used as a catchall message when something you wanted to do does not work, but you do not know why. |
| <b>EX_SOFTWARE</b> (70)    | An internal software error has been detected. This should be limited to non-operating system related errors as possible.  |
| <b>EX_OSERR</b> (71)       | An operating system error has been detected. This is intended to be   |

used for such things as "cannot fork", "cannot create pipe", or the like. It includes things like `getuid` returning a user that does not exist in the `passwd` file.

- EX\_OSFIL**E (72)            Some system file (e.g., `/etc/passwd`, `/var/run/utx.active`, etc.) does not exist, cannot be opened, or has some sort of error (e.g., syntax error).
- EX\_CANTCREAT** (73)        A (user specified) output file cannot be created.
- EX\_IOERR** (74)            An error occurred while doing I/O on some file.
- EX\_TEMPFAIL** (75)        Temporary failure, indicating something that is not really an error. In `sendmail`, this means that a mailer (e.g.) could not create a connection, and the request should be reattempted later.
- EX\_PROTOCOL** (76)        The remote system returned something that was "not possible" during a protocol exchange.
- EX\_NOPERM** (77)          You did not have sufficient permission to perform the operation. This is not intended for file system problems, which should use **EX\_NOINPUT** or **EX\_CANTCREAT**, but rather for higher level permissions.
- EX\_CONFIG** (78)          Something was found in an unconfigured or misconfigured state.

The numerical values corresponding to the symbolical ones are given in parenthesis for easy reference.

## SEE ALSO

`err(3)`, `exit(3)`, `style(9)`

## HISTORY

The `sysexits` file appeared somewhere after 4.3BSD.

## AUTHORS

This manual page was written by Jörg Wunsch after the comments in `<sysexits.h>`.

## BUGS

The choice of an appropriate exit value is often ambiguous.