

# **f90\_unix\_errno: Unix Error Code Module**

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## **1 Name**

**f90\_unix\_errno** — Module of Unix error codes

## **2 Usage**

### **USE F90\_UNIX\_ERRNO**

This module contains part of a Fortran API to functions detailed in ISO/IEC 9945-1:1990 Portable Operating System Interface (POSIX) - Part 1: System Application Program Interface (API) [C Language].

The facilities in this module are from Section 2.4 Error Numbers.

## **3 Synopsis**

### **Kind Parameter**

`ERROR_KIND.`

### **Error Parameters**

`E2BIG`, `EACCES`, `EAGAIN`, `EBADF`, `EBUSY`, `ECHILD`, `EDEADLK`, `EDOM`, `EEXIST`, `EFAULT`, `EFBIG`, `EINTR`, `EINVAL`, `EIO`, `EISDIR`, `EMFILE`, `EMLINK`, `ENAMETOOLONG`, `ENFILE`, `ENODEV`, `ENOENT`, `ENOEXEC`, `ENOLCK`, `ENOMEM`, `ENOSPC`, `ENOSYS`, `ENOTDIR`, `ENOTEMPTY`, `ENOTTY`, `ENXIO`, `EPERM`, `EPIPE`, `ERANGE`, `EROFS`, `ESPIPE`, `ESRCH`, `EXDEV`.

## **4 Error Handling**

Many procedures provided by the `F90_UNIX_*` modules have an optional `ERRNO` argument, declared as

```
INTEGER(error_kind),OPTIONAL,INTENT(OUT)
```

If this argument is provided it receives the error status from the procedure; zero indicates successful completion, otherwise it will be a non-zero error code, usually one of the ones listed in this module.

If the `ERRNO` argument is omitted and an error condition is raised, the program will be terminated with an informative error message.

If a procedure has no `ERRNO` argument it indicates that no error condition is possible - the procedure always succeeds.

## **5 Parameter Description**

All parameters are of type `INTEGER` with kind `ERROR_KIND`. The following table lists the error message typically associated with each error code; for full details see ISO/IEC 9945-1:1990, either section 2.4 or the appropriate section for the function raising the error.

|              |                                     |
|--------------|-------------------------------------|
| E2BIG        | Arg list too long                   |
| EACCES       | Permission denied                   |
| EAGAIN       | Resource temporarily unavailable    |
| EBADF        | Bad file descriptor                 |
| EBUSY        | Resource busy                       |
| ECHILD       | No child process                    |
| EDEADLK      | Resource deadlock avoided           |
| EDOM         | Domain error                        |
| EEXIST       | File exists                         |
| EFAULT       | Bad address                         |
| EFBIG        | File too large                      |
| EINTR        | Interrupted function call           |
| EINVAL       | Invalid argument                    |
| EIO          | Input/Output error                  |
| EISDIR       | Is a directory                      |
| EMFILE       | Too many open files                 |
| EMLINK       | Too many links                      |
| ENAMETOOLONG | Filename too long                   |
| ENFILE       | Too many open files in system       |
| ENODEV       | No such device                      |
| ENOENT       | No such file or directory           |
| ENOEXEC      | Exec format error                   |
| ENOLCK       | No locks available                  |
| ENOMEM       | Not enough space                    |
| ENOSPC       | No space left on device             |
| ENOSYS       | Function not implemented            |
| ENOTDIR      | Not a directory                     |
| ENOTEMPTY    | Directory not empty                 |
| ENOTTY       | Inappropriate I/O control operation |
| ENXIO        | No such device or address           |
| EPERM        | Operation not permitted             |
| EPIPE        | Broken pipe                         |
| ERANGE       | Result too large                    |
| EROFS        | Read-only file system               |
| ESPIPE       | Invalid seek                        |
| ESRCH        | No such process                     |
| EXDEV        | Improper link                       |

## 6 See Also

`intro(3)`, `nag_modules(3)`, `nagfor(1)`.

## 7 Bugs

Please report any bugs found to ‘support@nag.co.uk’ or ‘support@nag.com’, along with any suggestions for improvements.