IEEE P1003.2 Draft 11.2 – September 1991

B.4 C Binding for Access Environment Variables

Function: *getenv* ()

The C language binding to the service described in 7.2 shall be the POSIX.1 {8} *getenv* () function.

B.5 C Binding for Regular Expression Matching

Functions: *regcomp* (), *regexec* (), *regfree* (), *regerror* ()

B.5.1 Synopsis

```
#include <sys/types.h>
#include <regex.h>

int regcomp(regex_t *preg, const char *pattern, int cflags);

int regexec(const regex_t *preg, const char *string,
        size_t nmatch, regmatch_t pmatch[], int eflags);

size_t regerror(int errcode, const regex_t *preg,
        char *errbuf, size_t errbuf_size);

void regfree(regex_t *preg);
```

B.5.2 Description

These functions shall interpret basic and extended regular expressions, as described in 2.8.

The header `<regex.h>` shall define the structure types *regex_t* and *regmatch_t*. The structure type *regex_t* shall include at least the member shown in Table B-6.

The structure type *regmatch_t* shall contain at least the members shown in
Table B-7. The type *regoff_t*, which shall be defined in `<regex.h>`, shall be a 1
signed arithmetic type that can hold the largest value that can be stored in either 1
an *off_t* or a *ssize_t*. 1

The *regcomp* () function shall compile the regular expression contained in the 1
string pointed to by the *pattern* argument and place the results in the structure 1
pointed to by *preg*. The *cflags* argument shall be the bitwise inclusive OR of zero
or more of the flags shown in Table B-8, which shall be defined in the header
`<regex.h>`.

The default regular expression type for *pattern* shall be a Basic Regular Expression. The application can specify Extended Regular Expressions using the REG_EXTENDED *cflags* flag.

If the function *regcomp* () succeeds, it shall return zero; otherwise it shall return nonzero, and the content of *preg* shall be undefined.