#include <pcre2.h>

## **NAME**

PCRE2 - Perl-compatible regular expressions (revised API)

## **SYNOPSIS**

```
int pcre2_match(const pcre2_code *code, PCRE2_SPTR subject,
   PCRE2_SIZE length, PCRE2_SIZE startoffset,
   uint32_t options, pcre2_match_data *match_data,
   pcre2_match_context *mcontext);
```

## DESCRIPTION

This function matches a compiled regular expression against a given subject string, using a matching algorithm that is similar to Perl's. It returns offsets to what it has matched and to captured substrings via the **match\_data** block, which can be processed by functions with names that start with **pcre2\_get\_ovector\_...()** or **pcre2\_substring\_...()**. The return from **pcre2\_match()** is one more than the highest numbered capturing pair that has been set (for example, 1 if there are no captures), zero if the vector of offsets is too small, or a negative error code for no match and other errors. The function arguments are:

```
    code Points to the compiled pattern
    subject Points to the subject string
    length Length of the subject string
    startoffset Offset in the subject at which to start matching
    options Option bits
    match_data Points to a match data block, for results
    mcontext Points to a match context, or is NULL
```

A match context is needed only if you want to:

Set up a callout function
Set a matching offset limit
Change the heap memory limit
Change the backtracking match limit
Change the backtracking depth limit
Set custom memory management specifically for the match

The *length* and *startoffset* values are code units, not characters. The length may be given as PCRE2\_ZERO\_TERMINATED for a subject that is terminated by a binary zero code unit. The options are:

PCRE2\_ANCHORED Match only at the first position

PCRE2 COPY MATCHED SUBJECT

On success, make a private subject copy

PCRE2\_ENDANCHORED Pattern can match only at end of subject

PCRE2\_NOTBOL Subject string is not the beginning of a line

PCRE2\_NOTEOL Subject string is not the end of a line

PCRE2\_NOTEMPTY An empty string is not a valid match

PCRE2\_NOTEMPTY\_ATSTART An empty string at the start of the subject

is not a valid match

PCRE2\_NO\_JIT Do not use JIT matching

PCRE2\_NO\_UTF\_CHECK Do not check the subject for UTF

validity (only relevant if PCRE2\_UTF

was set at compile time)

PCRE2\_PARTIAL\_HARD Return PCRE2\_ERROR\_PARTIAL for a partial

match even if there is a full match

PCRE2\_PARTIAL\_SOFT Return PCRE2\_ERROR\_PARTIAL for a partial

match if no full matches are found

For details of partial matching, see the **pcre2partial** page. There is a complete description of the PCRE2 native API in the **pcre2api** page and a description of the POSIX API in the **pcre2posix** page.