

NAME

PCRE2 - Perl-compatible regular expressions (revised API)

SYNOPSIS

```
#include <pcre2.h>
```

```
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:

<i>code</i>	Points to the compiled pattern
<i>subject</i>	Points to the subject string
<i>length</i>	Length of the subject string
<i>startoffset</i>	Offset in the subject at which to start matching
<i>options</i>	Option bits
<i>match_data</i>	Points to a match data block, for results
<i>mcontext</i>	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.