

**NAME**

PCRE2 - Perl-compatible regular expressions (revised API)

**SYNOPSIS**

```
#include <pcre2.h>

int pcre2_dfa_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,
    int *workspace, PCRE2_SIZE wscount);
```

**DESCRIPTION**

This function matches a compiled regular expression against a given subject string, using an alternative matching algorithm that scans the subject string just once (except when processing lookahead assertions). This function is *not* Perl-compatible (the Perl-compatible matching function is **pcre2\_match()**). The arguments for this function 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
<i>workspace</i>	Points to a vector of ints used as working space
<i>wscount</i>	Number of elements in the vector

The size of output vector needed to contain all the results depends on the number of simultaneous matches, not on the number of parentheses in the pattern. Using **pcre2\_match\_data\_create\_from\_pattern()** to create the match data block is therefore not advisable when using this function.

A match context is needed only if you want to set up a callout function or specify the heap limit or the match or the recursion depth limits. The *length* and *startoffset* values are code units, not characters. 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 is not the beginning of a line
PCRE2_NOTEOL	Subject 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_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
PCRE2_DFA_RESTART	Restart after a partial match
PCRE2_DFA_SHORTEST	Return only the shortest match

There are restrictions on what may appear in a pattern when using this matching function. Details are given in the **pcre2matching** documentation. 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.