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# Formatted Search

*Inline search feature allows flexible formatting of search result*

The default output format of a `%SEARCH{...}%` is a table consisting of topic names and topic summaries. Use the `format="..."` parameter to customize the search result. The format parameter typically defines a bullet or a table row containing macros, such as `%SEARCH{ "food" format="| $topic | $summary |" }%`. See `%SEARCH{...}%` for other search parameters, such as `separator=""`.

## Syntax

Two parameters can be used to specify a customized search result:

### 1. `header="..."` parameter

Use the header parameter to specify the header of a search result. It should correspond to the format of the format parameter. This parameter is optional.
Example: `header="| *Topic:* | *Summary:* |"`

Format tokens that can be used in the header string:

| Name: | Expands To: |
|---|---|
| `$web` | Name of the web |
| `$n` or `$n()` | New line. Use `$n()` if followed by alphanumeric character, e.g. write `Foo$n()Bar` instead of `Foo$nBar` |
| `$nop` or `$nop()` | Is a "no operation". This token gets removed; useful for nested search |
| `$quot` | Double quote (") (\" also works) |
| `$percnt` | Percent sign (%) |
| `$dollar` | Dollar sign ($) |
| `$lt` | Less than sign (<) |
| `$gt` | Greater than sign (>) |
| `$amp` | Ampersand (&) |

### 2. `footer="..."` parameter

Use the footer parameter to specify the footer of a search result. It should correspond to the format of the format parameter. This parameter is optional.
Example: `footer="| *Topic* | *Summary* |"`

Format tokens that can be used in the footer string:

| Name: | Expands To: |
|---|---|
| `$web` | Name of the web |

| Name: | Expands To: |
|---|---|
| `$ntopics` | Number of topics found in current web |
| `$nhits` | Number of hits if `multiple="on"`. Cumulative across all topics in current web. Identical to `$ntopics` unless `multiple="on"` |
| `$n` or `$n()` | New line. Use `$n()` if followed by alphanumeric character, e.g. write `Foo$n()Bar` instead of `Foo$nBar` |
| `$nop` or `$nop()` | Is a "no operation". This token gets removed; useful for nested search |
| `$quot` | Double quote (") (\" also works) |
| `$percnt` | Percent sign (%) |
| `$dollar` | Dollar sign ($) |
| `$lt` | Less than sign (<) |
| `$gt` | Greater than sign (>) |
| `$amp` | Ampersand (&) |

## 3. `format="..."` parameter

Use the format parameter to specify the format of one search hit.
Example: `format="| $topic | $summary |"`

Format tokens that can be used in the format string:

| Name: | Expands To: |
|---|---|
| `$web` | Name of the web |
| `$topic` | Topic name |
| `$topic(20)` | Topic name, "- " hyphenated each 20 characters |
| `$topic(30, -<br />)` | Topic name, hyphenated each 30 characters with separator "`-<br />`" |
| `$topic(40, ...)` | Topic name, shortended to 40 characters with "`...`" indication |
| `$parent` | Name of parent topic; empty if not set |
| `$parent(20)` | Name of parent topic, same hyphenation/shortening like `$topic()` |
| `$text` | Formatted topic text. In case of a `multiple="on"` search, it is the line found for each search hit. |
| `$locked` | LOCKED flag (if any) |
| `$date` | Time stamp of last topic update, e.g. `27 Nov 2026 - 09:34` |
| `$isodate` | Time stamp of last topic update, e.g. `2026-11-27T09:34Z` |
| `$rev` | Number of last topic revision, e.g. `4` |
| `$username` | Login name of last topic update, e.g. `jsmith` |
| `$wikiname` | Wiki user name of last topic update, e.g. `JohnSmith` |
| `$wikiusername` | Wiki user name of last topic update, like `Main.JohnSmith` |
| `$createdate` | Time stamp of topic revision 1 |
| `$createusername` | Login name of topic revision 1, e.g. `jsmith` |
| `$createwikiname` | Wiki user name of topic revision 1, e.g. `JohnSmith` |
| `$createwikiusername` | Wiki user name of topic revision 1, e.g. `Main.JohnSmith` |
| `$summary` | Topic summary, just the plain text, all formatting and line breaks removed; up to 162 characters |
| `$summary(50)` | Topic summary, up to 50 characters shown |
| `$summary(showvarnames)` | Topic summary, with `%SOMEMACRO{...}%` macros shown as `SOMEMACRO{...}` |
| `$summary(noheader)` | Topic summary, with leading `---+ headers` removed<br>**Note:** The tokens can be combined, for example `$summary(100,` |

| Name: | Expands To: |
| --- | --- |
| | showvarnames, noheader) |
| $changes | Summary of changes between latest rev and previous rev |
| $changes(n) | Summary of changes between latest rev and rev n |
| $formname | The name of the form attached to the topic; empty if none |
| $formfield(name) | The field value of a form field; for example, $formfield(TopicClassification) would get expanded to PublicFAQ. This applies only to topics that have a DataForm |
| $formfield(name, 10) | Form field value, "- " hyphenated each 10 characters |
| $formfield(name, 20, -<br />) | Form field value, hyphenated each 20 characters with separator "-<br />" |
| $formfield(name, 30, ...) | Form field value, shortended to 30 characters with "..." indication |
| $pattern(reg-exp) | A regular expression pattern to extract some text from a topic (does not search meta data; use $formfield instead). In case of a multiple="on" search, the pattern is applied to the line found in each search hit.<br>• Specify a RegularExpression that covers the whole text (topic or line), which typically starts with .*, and must end in .*<br>• Put text you want to keep in parenthesis, like $pattern(.*?(from here.*?to here).*)<br>• Example: $pattern(.*?*.*?Email\:\s*([^\n\r]+).*) extracts the e-mail address from a bullet of format * Email: ...<br>• This example has non-greedy .*? patterns to scan for the first occurance of the Email bullet; use greedy .* patterns to scan for the last occurance<br>• Limitation: Do not use .*) inside the pattern, e.g. $pattern(.*foo(.*)bar.*) does not work, but $pattern(.*foo(.*?)bar.*) does<br>• Note: Make sure that the integrity of a web page is not compromised; for example, if you include an HTML table make sure to include everything including the table end tag |
| $count(reg-exp) | Count of number of times a regular expression pattern appears in the text of a topic (does not search meta data). Follows guidelines for use and limitations outlined above under $pattern(reg-exp). Example: $count(.*?(---[+][+][+][+]) .*) counts the number of <H4> headers in a page. |
| $ntopics | Number of topics found in current web. This is the current topic count, not the total number of topics |
| $nhits | Number of hits if multiple="on". Cumulative across all topics in current web. Identical to $ntopics unless multiple="on" |
| $n or $n() | New line. Use $n() if followed by alphanumeric character, e.g. write Foo$n()Bar instead of Foo$nBar |
| $nop or $nop() | Is a "no operation". This token gets removed; useful for nested search |
| $quot | Double quote (") (\" also works) |
| $percnt | Percent sign (%) |
| $dollar | Dollar sign ($) |
| $lt | Less than sign (<) |
| $gt | Greater than sign (>) |
| $amp | Ampersand (&) |

# Examples

Here are some samples of formatted searches. The SearchPatternCookbook has other examples, such as creating a picklist of usernames, searching for topic children and more.

## Bullet list showing topic name and summary

**Write this:**

```
%SEARCH{ "VarREMOTE" scope="topic" nosearch="on" nototal="on" header="| *Topic* | *Summary* |" format="| [[$topic]] | $summary |"  footer="| *Topics found* | *$ntopics* |"  }%
```

**To get this:**

| Topic | Summary |
|---|---|
| VarREMOTEADDR | #VarREMOTEADDR REMOTE ADDR environment variable Syntax: % nop REMOTE ADDR% Expands to: Related: ENV, HTTP HOST, REMOTE PORT, REMOTE USER |
| VarREMOTEPORT | #VarREMOTEPORT REMOTE PORT environment variable Syntax: % nop REMOTE PORT% Expands to: Related: ENV, HTTP HOST, REMOTE ADDR, REMOTE USER |
| VarREMOTEUSER | #VarREMOTEUSER REMOTE USER environment variable Syntax: % nop REMOTE USER% Expands to: Related: ENV, HTTP HOST, REMOTE ADDR, REMOTE PORT, USERNAME ... |
| **Topics found** | **3** |

## Table showing form field values of topics with a form

In a web where there is a form that contains a `TopicClassification` field, an `OperatingSystem` field and an `OsVersion` field we could write:

```
| *Topic:* | *OperatingSystem:* | *OsVersion:* |
%SEARCH{ "[T]opicClassification.*?value=\"[P]ublicFAQ\"" scope="text" type="regex" nosearch="on" nototal="on" format="| [[$topic]] | $formfield(OperatingSystem) | $formfield(OsVersion) |" }%
```

To get this:

| Topic: | OperatingSystem: | OsVersion: |
|---|---|---|
| IncorrectDllVersionW32PTH10DLL | OsWin | 95/98 |
| WinDoze95Crash | OsWin | 95 |

## Extract some text from a topic using regular expression

**Write this:**

```
%SEARCH{ "\*Back to:\* FrequentlyAskedQuestions" scope="text"
type="regex" nosearch="on" nototal="on" header="FAQs:" format="   *
$pattern(.*?FAQ\:[\n\r]*([^\n\r]+).*) [[$topic][Answer...]]"
footer="Found $ntopics FAQ topics" }%
```

**To get this:**

FAQs:

- How can I create a simple data form based application? Answer...
- How do I delete or rename a topic? Answer...
- How do I delete or rename a file attachment? Answer...
- I would like to install Foswiki on my server. Can I get the source? Answer...
- Why does the topic revision not increase when I edit a topic? Answer...
- Foswiki has a GPL (GNU General Public License). What is GPL? Answer...
- I've problems with the WebSearch. There is no Search Result on any inquiry. By clicking the Index topic it's the same problem. Answer...
- What happens if two of us try to edit the same topic simultaneously? Answer...
- So what is this WikiWiki thing exactly? Answer...

Found 9 FAQ topics

## Nested Search

Search can be nested. For example, search for some topics, then form a new search for each topic found in the first search. The idea is to build the nested search string using a formatted search in the first search.

Here is an example. Let's search for all topics that contain the word "culture" (first search), and let's find out where each topic found is linked from (second search).

- First search:
  - `%SEARCH{ "culture" format="   * $topic is referenced by: (list all references)" nosearch="on" nototal="on" }%`
- Second search. For each hit we want this search:
  - `%SEARCH{ "(topic found in first search)" format="$topic" nosearch="on" nototal="on" separator=", " }%`
- Now let's nest the two. We need to escape the second search, e.g. the first search will build a valid second search string. Note that we escape the second search so that it does not get evaluated prematurely by the first search:
  - Use `$percnt` to escape the leading percent of the second search
  - Use `\"` to escape the double quotes
  - Use `$dollar` to escape the `$` of `$topic`
  - Use `$nop` to escape the `}%` sequence

**Write this:**

```
%SEARCH{ "culture" format="   * $topic is referenced by:$n      *
$percntSEARCH{ \"$topic\" format=\"$dollartopic\" nosearch=\"on\"
nototal=\"on\" separator=\", \" }$nop%" nosearch="on" nototal="on" }%
```

**To get this:**

- AccessControl is referenced by:
    - DefaultPreferences, DevelopingPlugins, FileAttachment, InstallationGuide, MainFeatures, ManagingTopics, ManagingUsers, ReferenceManual, ReleaseNotes01x00, SitePermissions, SiteTools, TopicsAndWebs, TwentyMinuteTutorial, UserAuthentication, VarSEARCH, WebPreferences, WebPreferencesHelp, WikiWord
- BeginnersStartHere is referenced by:
    - MacrosQuickStart, NewUserTemplate, ReleaseNotes01x00, UsersGuide, WebLeftBarExample, WelcomeGuest
- FormattedSearch is referenced by:
    - AccessControl, BookView, EditTablePlugin, FormatTokens, MetaData, MySideBarTemplate, NatEditHelpText, NatEditWordHelpText, QuerySearch, ReferenceManual, ReleaseNotes01x00, RenderListPlugin, SearchHelp, SearchPatternCookbook, SiteTools, SpreadSheetPlugin, VarMETA, VarMETASEARCH, VarSEARCH, VarURLPARAM, WebLeftBarExample
- VarCachePluginTest is referenced by:
- WabiSabi is referenced by:
    - WabiSabi, WhatIsWikiWiki
- WelcomeGuest is referenced by:
    - BeginnersStartHere, MySideBarTemplate, NewUserTemplate, StartingPoints, UsersGuide, WebHome, WebPreferences, WhatIsWikiWiki, YouAreHere
- WhatIsWikiWiki is referenced by:
- WikiCulture is referenced by:
    - AccessControl, BeginnersStartHere, WabiSabi, WelcomeGuest, WhatIsWikiWiki

**Note:** Nested search can be slow, especially if you nest more then 3 times. Nesting is limited to 16 levels. For each new nesting level you need to "escape the escapes", e.g. write `$dollarpercntSEARCH{` for level three, `$dollardollarpercntSEARCH{` for level four, etc.

## Most recently changed pages

**Write this:**

```
%SEARCH{ "\.*" scope="topic" type="regex" nosearch="on" nototal="on"
order="modified" reverse="on"  format="| [[$topic]] | $wikiusername  |
$date |" limit="7" }%
```

**To get this:**

| | | |
|---|---|---|
| WebPreferences | MathiasHauser | 20 Nov 2025 - 10:12 |
| WebNotify | UrsBeyerle | 04 Sep 2012 - 11:35 |

## Search with conditional output

A regular expression search is flexible, but there are limitations. For example, you cannot show all topics that are up to exactly one week old, or create a report that shows all records with invalid form fields or fields within a certain range, etc. You need some additional logic to format output based on a condition:

1. Specify a search which returns more hits then you need
2. For each search hit apply a spreadsheet formula to determine if the hit is needed
3. If needed, format and output the result
4. Else supress the search hit

This requires the . The following example shows all topics that are up to exactly one week old.

**Write this:**

```
%CALC{$SET(weekold, $TIMEADD($TIME(), -7, day))}%
%SEARCH{ "." scope="topic" type="regex" nosearch="on" nototal="on"
order="modified" reverse="on" format="$percntCALC{$IF($TIME($date) <
$GET(weekold), <nop>, | [[$topic]] | $wikiusername | $date | $rev
|)}$percnt" limit="100" }%
```

- The first line sets the `weekold` variable to the serialized date of exactly one week ago
- The SEARCH has a deferred CALC. The `$percnt` makes sure that the CALC gets executed once for each search hit
- The CALC compares the date of the topic with the `weekold` date
- If topic is older, a `<nop>` is returned, which gets removed at the end of the rendering process
- Otherwise, the search hit is formatted and returned

**To get this:**

| | | | |
|---|---|---|---|
| WebLeftBarLogin | ProjectContributor | 01 Jan 1970 - 01:00 | 1 |

## Embedding search forms to return a formatted result

Use an HTML form and an embedded formatted search on the same topic. You can link them together with an `%URLPARAM{"..."}%` macro. Example:

**Write this:**

```
<form action="%SCRIPTURLPATH{"view"}%/%WEB%/%TOPIC%">
Find Topics:
<input type="text" name="q" size="32" value="%URLPARAM{"q" encode="entity"}%" /> <inp
</form>
Result:
%SEARCH{ search="%URLPARAM{"q" encode="quote"}%" type="keyword" format="   * $web.$topic:
```

**To get this:**

Find Topics:  Result:

---

**Related Topics:** UserDocumentationCategory, SearchHelp, Macros#VarSEARCH, SearchPatternCookbook, RegularExpression
Edit | Attach | Print version | History: %REVISIONS% | Backlinks | Raw View | More topic actions
Topic revision: r1 - 09 Jan 2009 - 13:00:00 - ProjectContributor

- . System
- Log In

- **Toolbox**
- Users
- Groups
- Index
- Search
- Changes
- Notifications
- RSS Feed
- Statistics
- Preferences

- **User Reference**
- BeginnersStartHere
- TextFormattingRules
- Macros
- FormattedSearch
- QuerySearch
- DocumentGraphics
- SkinBrowser
- InstalledPlugins

- **Admin Maintenance**
- Reference Manual
- AdminToolsCategory
- InterWikis
- ManagingWebs
- SiteTools
- DefaultPreferences
- WebPreferences

- **Categories**
- Admin Documentation
- Admin Tools
- Developer Doc
- User Documentation
- User Tools

- **Webs**
- Public
- System

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