



Template Toolkit Quick Reference Card

Revision 0.5 for Template Toolkit version 2.14
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The Template Toolkit (www.template-toolkit.org) is a sophisticated template system written by Andy Wardley.

Syntax

Directives

```
[% [GET] var %]
[% CALL var %]
[% [SET] var = value ... %]
[% DEFAULT var = value ... %]
[% META attr = value ... %]

[% INSERT filename %]
[% INCLUDE template [var = value ...] %]
[% PROCESS template [var = value ...] %]
[% WRAPPER template [var = value ...] %] text... [%]
END %]

[% BLOCK [name] %] content... [% END %]
[% FILTER filter %] text... [% END %]
[% MACRO name[(varlist)] directive %]
[% USE plugin[(param, ...)] %]
[% PERL %] code... [% END %]
[% RAWPERL %] code... [% END %]

[% FOREACH var = list %] ... [% END %]
[% WHILE cond %] ... [% END %]
[% IF cond %] ... [% ELSIF cond %] ...
[% ELSE %] [% END %]
[% SWITCH var %] ... [% CASE [{value|DEFAULT}] %]
... [% END %]
[% TRY %] ... [% CATCH [type] %] ...
[% FINAL %] ... [% END %]
[% THROW type info ... %]
[% NEXT %]
[% LAST %]
[% RETURN %]
[% STOP %]
```

Special variables

```
template    outermost template being processed
             methods: name, modtime
component   innermost template being processed
             methods: name, modtime
loop        loop iterator
             methods: count, first, last, max
error       exception object
content     captured output for WRAPPER
global      top level namespace
```

Virtual methods

Scalar variables

```
chunk(size)  negative size chunks from end
              is value defined?
defined       is value defined?
hash          treat as single-element hash with key value
length        length of string representation
list          treat as single-item list
match(re)     true if value matches re
repeat(n)     repeated n times
replace(re, sub) replace instances of re with sub
search(re)    returns list of matching subpatterns
size          returns 1, as if a single-item list
split(re)     split string on re
```

Hash variables

```
each          list of alternating keys/values
exists(key)   does key exist?
import(hash2) import contents of hash2
import         import into current namespace hash
keys          list of keys
list          returns alternating key, value
nsort         keys sorted numerically
size          number of pairs
sort          keys sorted alphabetically
values        list of values
```

List variables

```
first         first item in list
grep(re)      items matching re
join(str)     items joined with str
last          last item in list
max           maximum index number (i.e. size - 1)
merge(list [, list...]) combine lists
nsort         items sorted numerically
pop           remove first item from list
push(item)    add item to end of list
reverse       items in reverse order
shift         remove last item from list
size          number of elements
slice(from, to) subset of list
sort          items sorted lexically
splice(off, len [, list]) modifies list
unique        unique items (retains order)
unshift(item) add item to start of list
```

Standard filters

```
collapse      collapses whitespace to a single space
eval(text)    evaluate as template text
evaltt(text)  evaluate as template text
evalperl(text) evaluate text as Perl code
format(str)   format as per printf()
html          performs HTML escaping on '<', '>', '&'
html_break    convert empty lines to HTML linebreaks
html_entity   performs HTML escaping
html_line_break convert newlines to '<br>'
html_para     convert blank lines to HTML paras
indent(pad)   indent by pad string or width
latex(outfmt) process through LATEX
lcfirst       lower case first character
lower         convert to lower case
null          output to the bit bucket
perl(text)    evaluate text as Perl code
redirect(file) redirect output to file
remove(re)    removes occurrences of re
repeat(n)     repeat n times
replace(re, sub) replace re with sub
stderr        redirect output to STDERR
stdout(binmode) redirect output to STDOUT in mode binmode
trim          removes leading and trailing whitespace
truncate(len) truncate to length len
ucfirst       capitalize first character
upper         convert to upper case
uri           performs URI-escaping
```

Standard plugins

Refer to documentation for details of individual plugins.

```
Autoformat    autoformatting with Text::Autoformat
CGI            interface to CGI.pm
Datafile       data stored in plain text files
Date           generates formatted time and date strings
Directory     interface to directory contents
DBI            interface to DBI
Dumper         interface to Data::Dumper
File           provides general file abstraction
Format         provides printf-like formatting
GD:::*        provide access to GD graphics library
HTML           generic HTML generation
HTML           iterator creation
Iterator       iterator creation
Pod            interface to Pod::POM (POD Object Model)
String         OO string manipulation interface
Table          table formatting
Url            URL construction
Wrap           simple paragraph wrapping
XML.DOM        interface to XML Document Object Model
XML.RSS        interface to XML::RSS
XML.Simple     interface to XML::Simple
XML.Style      simple stylesheet transforms of XML
XML.XPath      interface to XML::XPath
```

Configuration Options

START_TAG	start of directive token	([%)
END_TAG	end of directive token	(%)]
TAG_STYLE	set pre-defined START_TAG/END_TAG style	
PRE_CHOMP	remove whitespace before directives	(0)
POST_CHOMP	remove whitespace after directives	(0)
TRIM	remove leading and trailing whitespace	(0)
INTERPOLATE	interpolate embedded variables	(0)
ANYCASE	allow lower case directive keywords	(0)

Template files and blocks

INCLUDE_PATH	search path for templates	
DELIMITER	delimiter for separating paths	(:)
ABSOLUTE	allow absolute file names	(0)
RELATIVE	allow relative filenames	(0)
DEFAULT_BLOCKS	default template hash array pre-defining template blocks	
AUTO_RESET	reset BLOCK definitions each time	(1)
RECURSION	permit recursion in templates	(0)

Template variables

PRE_DEFINE_VARIABLES	hash array of variables and values to pre-define synonym for PRE_DEFINE
----------------------	--

Runtime processing options

EVAL_PERL	process PERL/RAWPERL blocks	(0)
PRE_PROCESS	template(s) to process before main template	
POST_PROCESS	template(s) to process after main template	
PROCESS	template(s) to process instead of main template	
ERROR	name of error template or reference to hash array mapping error types to templates	
OUTPUT	default output location or handler	
OUTPUT_PATH	directory into which output files can be written	
DEBUG	raise 'undef' error on access to undefined variables	

Caching and Compiling Options

CACHE_SIZE	max compiled templates to cache	(undef, i.e. cache all)
COMPILE_EXT	extension for compiled template files	(undef)
COMPILE_DIR	directory for compiled template files	(undef)

Plugins and Filters

PLUGINS	reference to a hash array mapping plugin names to Perl packages.	
PLUGIN_BASE	base class(es) under which plugins may be found	
LOAD_PERL	load Perl modules if plugin not found	(0)
FILTERS	hash array mapping filter names to filter sub-routines or factories.	

Compatibility, Customisation and Extension

VIDOLLAR	backwards compatibility flag	
LOAD_TEMPLATES	list of template providers	
LOAD_PLUGINS	list of plugin providers	
LOAD_FILTERS	list of filter providers	
TOLERANT	set providers to tolerate errors as declarations	(0)
SERVICE	custom service obj	(Template::Service)
CONTEXT	custom context obj	(Template::Context)
STASH	custom stash object	(Template::Stash)
PARSER	custom parser object	(Template::Parser)
GRAMMAR	custom grammar obj	(Template::Grammar)

Command line tools

tpage

tpage processes supplied templates and sends output to STDOUT; variables can be defined with:
--define var=value ...

ttree

ttree processes directory hierarchies of templates; it takes the following options:

-a	(--all)	process all files ignoring mod-times
-r	(--recurse)	recurse into sub-directories
-p	(--preserve)	preserve file ownership and permissions
-n	(--nothing)	do nothing, just print summary (enables -v)
-v	(--verbose)	verbose mode
-h	(--help)	display help
-dbg	(--debug)	debug mode
-s dir	(--src=dir)	source directory
-d dir	(--dest=DIR)	destination directory
-c dir	(--cfg=DIR)	location of configuration files
-l dir	(--lib=DIR)	library directory (INCLUDE_PATH) (multiple)
-f file	(--file=FILE)	read named configuration file (multiple)

File search specifications (all may appear multiple times):

--ignore=regex	ignore files matching <i>regex</i>
--copy=regex	copy files matching <i>regex</i>
--accept=regex	process only files matching <i>regex</i>

Additional options to set Template Toolkit configuration items:

--define var=value	define template variable
--interpolate	interpolate variables in text
--anycase	accept keywords in any case
--pre_chomp	chomp leading whitespace
--post_chomp	chomp trailing whitespace
--trim	trim blank lines around blocks
--eval_perl	evaluate PERL code blocks
--load_perl	load regular Perl modules via USE directive
--	add <i>TEMPLATE</i> as header for each file
pre_process=TEMPLATE	
--	add <i>TEMPLATE</i> as footer for each file
post_process=TEMPLATE	
--	wrap <i>TEMPLATE</i> around each file
process=TEMPLATE	
--	use <i>TEMPLATE</i> as default
default=TEMPLATE	
--error=TEMPLATE	use <i>TEMPLATE</i> to handle errors
--	<i>STRING</i> defines start of directive tag
start_tag=STRING	
--end_tag=STRING	<i>STRING</i> defines end of directive tag
--tag_style=STYLE	use pre-defined tag style <i>STYLE</i>
--	base <i>PACKAGE</i> for plugins
plugin_base=PACKAGE	
--	extension for compiled templates
compile_ext=STRING	
--compile_dir=DIR	directory for compiled templates
--perl5lib=DIR	additional Perl library directory

Perl API

```
use Template;
$tt = Template->new(\%config);
$tt->process($template, \%vars[, $output]);
$tt->service;
$tt->context;
$tt->error;
```

Template Toolkit Quick Reference Card

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