

# ClangFormat

配置文档

# 目录

1.	使月	目	6
	1.1	介绍	6
	1.2	配置样式	8
	1.3	禁用格式	9
2.	配置		10
	2.1	BasedOnStyle	10
	2.2	AccessModifierOffset	11
	2.3	AlignAfterOpenBracket	12
	2.4	AlignArrayOfStructures	13
	2.5	AlignConsecutiveAssignments	14
	2.6	AlignConsecutiveBitFields	15
	2.7	AlignConsecutiveDeclarations	16
	2.8	AlignConsecutiveMacros	17
	2.9	AlignEscapedNewlines	18
	2.10	AlignOperands	19
	2.11	AlignTrailingComments	20
	2.12	AllowAllArgumentsOnNextLine	21
	2.13	AllowAllConstructorInitializersOnNextLine	22
	2.14	AllowAllParametersOfDeclarationOnNextLine	23
	2.15	AllowShortBlocksOnASingleLine	24
	2.16	AllowShortCaseLabelsOnASingleLine	25
	2.17	AllowShortEnumsOnASingleLine	26
	2.18	AllowShortFunctionsOnASingleLine	27
	2.19	AllowShortIfStatementsOnASingleLine	28
	2.20	AllowShortLambdasOnASingleLine	30
	2.21	AllowShortLoopsOnASingleLine	31
	2.22	AlwaysBreakAfterDefinitionReturnType	32
	2.23	AlwaysBreakAfterReturnType	33
	2.24	AlwaysBreakBeforeMultilineStrings	35
	2.25	AlwaysBreakTemplateDeclarations	36
	2.26	AttributeMacros	37
	2.27	BinPackArguments	38
	2.28	BinPackParameters	39
		BitFieldColonSpacing	40
		BraceWrapping	41

2.31	BreakAfterJavaFieldAnnotations	46
2.32	BreakBeforeBinaryOperators	47
2.33	BreakBeforeBraces	48
2.34	BreakBeforeConceptDeclarations	52
2.35	BreakBeforeTernaryOperators	53
2.36	BreakConstructorInitializers	54
2.37	BreakInheritanceList	55
2.38	BreakStringLiterals	56
2.39	ColumnLimit	57
2.40	CommentPragmas	58
2.41	CompactNamespaces	59
2.42	Constructor Initializer All On One Line Or One Per Line	60
2.43	ConstructorInitializerIndentWidth	61
2.44	ContinuationIndentWidth	62
2.45	Cpp11BracedListStyle	63
2.46	DeriveLineEnding	64
2.47	DerivePointerAlignment	65
2.48	DisableFormat	66
2.49	EmptyLineAfterAccessModifier	67
2.50	EmptyLineBeforeAccessModifier	68
2.51	ExperimentalAutoDetectBinPacking	69
2.52	FixNamespaceComments	70
2.53	ForEachMacros	71
2.54	IfMacros	72
2.55	IncludeBlocks	73
2.56	IncludeCategories	74
2.57	IncludeIsMainRegex	75
2.58	IncludeIsMainSourceRegex	76
2.59	IndentAccessModifiers	77
2.60	IndentCaseBlocks	78
2.61	IndentCaseLabels	79
2.62	IndentExternBlock	80
2.63	IndentGotoLabels	81
2.64	IndentPPDirectives	82
2.65	IndentRequires	83
2.66	IndentWidth	84
2.67	Indent Wrapped Function Names	85
2.68	InsertTrailingCommas	86

2.69 JavaImportGroups	87
2.70 JavaScriptQuotes	88
2.71 JavaScriptWrapImports	89
2.72 KeepEmptyLinesAtTheStartOfBlocks	90
2.73 LambdaBodyIndentation	91
2.74 Language	92
2.75 MacroBlockBegin	93
2.76 MacroBlockEnd	94
2.77 MaxEmptyLinesToKeep	95
2.78 NamespaceIndentation	96
2.79 NamespaceMacros	97
2.80 ObjCBinPackProtocolList	98
2.81 ObjCBlockIndentWidth	99
2.82 ObjCBreakBeforeNestedBlockParam	100
2.83 ObjCSpaceAfterProperty	101
2.84 ObjCSpaceBeforeProtocolList	102
2.85 PPIndentWidth	103
2.86 PackConstructorInitializers	104
2.87 PenaltyBreakAssignment	105
2.88 PenaltyBreakBeforeFirstCallParameter	106
2.89 PenaltyBreakComment	107
2.90 PenaltyBreakFirstLessLess	108
2.91 PenaltyBreakString	109
2.92 PenaltyBreakTemplateDeclaration	110
2.93 PenaltyExcessCharacter	111
2.94 PenaltyIndentedWhitespace	112
2.95 PenaltyReturnTypeOnItsOwnLine	113
2.96 PointerAlignment	114
2.97 QualifierAlignment	115
2.98 QualifierOrder	116
2.99 RawStringFormats	117
2.100 ReferenceAlignment	118
2.101 ReflowComments	119
2.102 ShortNamespaceLines	120
2.103 SortIncludes	121
2.104 SortJavaStaticImport	122
2.105 SortUsingDeclarations	123
2.106 SpaceAfterCStyleCast	124

2.107	SpaceAfterLogicalNot	125
2.108	SpaceAfterTemplateKeyword	126
2.109	SpaceAroundPointerQualifiers	127
2.110	SpaceBeforeAssignmentOperators	128
2.111	SpaceBeforeCaseColon	129
2.112	SpaceBeforeCpp11BracedList	130
2.113	SpaceBeforeCtorInitializerColon	131
2.114	SpaceBeforeInheritanceColon	132
2.115	SpaceBeforeParens	133
2.116	SpaceBeforeParensOptions	134
2.117	Space Before Range Based For Loop Colon	135
2.118	SpaceBeforeSquareBrackets	136
2.119	SpaceInEmptyBlock	137
2.120	SpaceInEmptyParentheses	138
2.121	SpacesBeforeTrailingComments	139
2.122	SpacesInAngles	140
2.123	SpacesInCStyleCastParentheses	141
2.124	SpacesInConditionalStatement	142
2.125	SpacesInContainerLiterals	143
2.126	SpacesInLineCommentPrefix	144
2.127	SpacesInParentheses	145
2.128	SpacesInSquareBrackets	146
2.129	Standard	147
2.130	StatementAttributeLikeMacros	148
2.131	StatementMacros	149
2.132	TabWidth	150
2.133	TypenameMacros	151
2.134	UseCRLF	152
2.135	UseTab	153
2.136	WhitespaceSensitiveMacros	154

### 1. 使用

#### 1.1 介绍

clang-format clang/tools/clang-format,可用于格式化 C/C++/Java/JavaScript/Objective-C/Protobuf/C#

```
$ clang-format -help
OVERVIEW: A tool to format C/C++/Java/JavaScript/JSON/Objective-C/Protobuf/C# code.
If no arguments are specified, it formats the code from standard input
and writes the result to the standard output.
If <file>s are given, it reformats the files. If -i is specified
together with <file>s, the files are edited in-place. Otherwise, the result is written to the standard output.
USAGE: clang-format [options] [<file> ...]
OPTIONS:
Clang-format options:
  --Werror
                                 - If set, changes formatting warnings to errors
  --Wno-error=<value>
                                 - If set don't error out on the specified warning type.
    =unknown
                                    If set, unknown format options are only warned about.
                                      This can be used to enable formatting, even if the
                                      configuration contains unknown (newer) options
                                     Use with caution, as this might lead to dramatically
                                      differing format depending on an option being
  supported or not. --assume-filename=<string> - Override filename used to determine the language.
                                    When reading from stdin, clang-format assumes this
                                   filename to determine the language.
The position of the cursor when invoking
  --cursor=<uint>
                                   clang-format from an editor integration
                                   If set, do not actually make the formatting changes \ensuremath{\mathsf{Dump}} configuration options to stdout and exit.
  --drv-run
  --dump-config
                                   Can be used with -style option.
The name of the predefined style used as a
  --fallback-style=<string> -
                                    fallback in case clang-format is invoked with
                                    -style=file, but can not find the .clang-format
                                    file to use.
                                    Use -fallback-style=none to skip formatting.
  --ferror-limit=<uint>
                                   Set the maximum number of clang-format errors to
                                   emit before stopping (0 = no limit). Used only
                                   with --dry-run or -n
Inplace edit <file>s, if specified.
  --length=<uint>
                                   Format a range of this length (in bytes).
                                   Multiple ranges can be formatted by specifying several -offset and -length pairs.
                                    When only a single -offset is specified without
                                   -length, clang-format will format up to the end of the file. \,
                                   Can only be used with one input file
  --lines=<string>
                                   <start line>:<end line> - format a range of
                                   lines (both 1-based).
                                   Multiple ranges can be formatted by specifying
                                   several -lines arguments.
                                    Can't be used with -offset and -length.
                                   Can only be used with one input file % \left( 1\right) =\left( 1\right) \left( 1\right) 
                                   Alias for --dry-run
  --offset=<uint>
                                   Format a range starting at this byte offset.
                                   Multiple ranges can be formatted by specifying
                                    several -offset and -length pairs.
                                   Can only be used with one input file.
  --output-replacements-xml -
                                   Output replacements as XML.
                                   If set, overrides the include sorting behavior
  --sort-includes
                                   determined by the SortIncludes style flag
Coding style, currently supports:
  --style=<string>
                                     LLVM, Google, Chromium, Mozilla, WebKit.
                                   Use -style=file to load style configuration from .clang-format file located in one of the parent
                                   directories of the source file (or current
                                   directory for stdin).
                                   Use -style="{key: value, ...}" to set specific
                                   parameters, e.g.:
                                      -style="{BasedOnStyle: llvm, IndentWidth: 8}"
  --verbose
                                 - If set, shows the list of processed files
Generic Options:
  --help
                                 - Display available options (--help-hidden for more)
  --help-list
                                   Display list of available options (--help-list-hidden for more)
  --version
                                   Display the version of this program
```

### 1.2 配置样式

配置文件可以由几个部分组成,每个部分使用不同的语言:参数表示该配置部分针对的编程语言。有关支持的语言列表,请参阅下面语言选项的说明。 第一部分可能没有设置语言,它将为所有语言设置默认样式选项。特定语言的配置节将覆盖在默认部分的设置的选项。

当 clang-format -assume-filename=

可以用来覆盖 clang-format

#### 多语言配置文件的示例:

```
# LLVM 4
BasedOnStyle: LLVM
IndentWidth: 4
---
Language: Cpp
# C++
DerivePointerAlignment: false
PointerAlignment: Left
---
Language: JavaScript
# JS 180
ColumnLimit: 100
---
Language: Proto
# .proto
DisableFormat: true
---
Language: CSharp
# C# 190
ColumnLimit: 100
---
```

获得包含所有预定义样式配置选项的有效 .clang-format

```
clang-format -style=llvm -dump-config > .clang-format
```

当在 -style=

```
-style='{key1: value1, key2: value2, ...}'
```

# 1.3 禁用格式

```
Clang-format

format on /* clang-format on */

int formatted_code;
// clang-format off

void unformatted_code;
// clang-format on
void formatted_code_again;

// clang-format off
/* clang-format off
/* clang-format off
/* clang-format off
// clang
```

## 2. 配置

### 2.1 BasedOnStyle

### 2.1.1 BasedOnStyle (string)

用于配置中未特别设置的所有选项的样式。用于配置中未特别设置的所有选项的样式。

此选项仅在 clang-format -style='{...}' .clang-format 可能的值: • LLVM LLVM Google C++ Google • Chromium Chromium • Mozilla Mozilla WebKit • WebKit Microsoft Microsoft GNU • GNU InheritParentConfig .clang-format 会退回到 fallback style={BasedOnStyle: InheritParentConfig, ColumnLimit: 20}

### 2.2 AccessModifierOffset

### $2.2.1 \ Access Modifier Offset (Integer)$



clang-format 3.3

访问修饰符的额外缩进或缩出,例如 public:。

### 2.3 AlignAfterOpenBracket

### 2.3.1 AlignAfterOpenBracket (BracketAlignmentStyle)



### 2.4 AlignArrayOfStructures

2.4.1 AlignArrayOfStructures (ArrayInitializerAlignmentStyle)

### 2.5 AlignConsecutiveAssignments

#### 2.5.1 AlignConsecutiveAssignments (AlignConsecutiveStyle)

```
clang-format 3.8
对齐连续赋值的样式。
Consecutive
 int a = 1;
int somelongname = 2;
double c = 3;
 double c
可能的值:
  None
             Consecutive
                               AcrossEmptyLines
                                                       AcrossComments
                                                                               AcrossEmptyLinesAndComments
ACS_None:
ACS_Consecutive:
 int somelongname = 2;
double c = 3;
 int d = 3;
/* A comment. */
 double e = 4;
ACS_AcrossEmptyLines:
                            ACS_Consecutive
 int somelongname = 2;
double c = 3;
 double e = 4;
```

ACS\_AcrossComments:

```
int a
int somelongname = 2;
double c = 3;
double c
int d = 3;
/* A comment. */
double e = 4;
```

ACS\_AcrossEmptyLinesAndComments: ACS\_Consecutive

ACS\_Consecutive

```
int a = 1;
int somelongname = 2;
/* A comment. */
double e = 4;
```

### 2.6 AlignConsecutiveBitFields

#### 2.6.1 AlignConsecutiveBitFields (AlignConsecutiveStyle)

```
clang-format 11
```

对齐连续位字段的样式。

将连续行的位域分隔符对齐。这将导致如下格式:

#### 可能的值:

None Consecutive AcrossEmptyLines AcrossComments AcrossEmptyLinesAndComments

ACS\_None:

ACS\_Consecutive:

ACS\_AcrossEmptyLines: ACS\_Consecutive

ACS\_AcrossComments: ACS\_Consecutive

```
int aaaa : 1;
int b    : 12;
int ccc : 8;

int d : 2;
/* A comment. */
int ee : 3;
```

ACS\_AcrossEmptyLinesAndComments: ACS\_Consecutive

```
int aaaa : 1;
int b    : 12;
int ccc : 8;

int d    : 2;
/* A comment. */
int ee    : 3;
```

### 2.7 AlignConsecutiveDeclarations

#### 2.7.1 AlignConsecutiveDeclarations (AlignConsecutiveStyle)

```
clang-format 3.8
```

对齐连续声明的样式。

将连续行的声明名称对齐。这将导致如下格式:

#### 可能的值:

None Consecutive AcrossEmptyLines AcrossComments AcrossEmptyLinesAndComments

ACS\_None:

ACS\_Consecutive:

ACS\_AcrossEmptyLines: ACS\_Consecutive

ACS\_AcrossComments: ACS\_Consecutive

ACS\_AcrossEmptyLinesAndComments: ACS\_Consecutive

```
int     aaaa = 12;
float     b = 23;
std::string ccc;
int     a = 42;
/* A comment. */
bool     c = false;
```

### 2.8 AlignConsecutiveMacros

#### 2.8.1 AlignConsecutiveMacros (AlignConsecutiveStyle)

```
clang-format 9
```

#### 对齐连续宏定义的样式。

#### Consecutive

```
#define SHORT_NAME 42
#define LONGER_NAME 0x007f
#define EVEN_LONGER_NAME (2)
#define foo(x) (x * x)
#define bar(y, z) (y + z)
```

#### 可能的值:

None Consecutive AcrossEmptyLines AcrossComments AcrossEmptyLinesAndComments

#### ACS\_None:

#### ACS\_Consecutive:

```
#define SHORT_NAME     42
#define LONGER_NAME     0x007f
#define EVEN_LONGER_NAME (2)

#define foo(x) (x * x)
/* some comment */
#define bar(y, z) (y + z)
```

```
ACS_AcrossEmptyLines: ACS_Consecutive
```

#### ACS\_AcrossComments: ACS\_Consecutive

#### ${\tt ACS\_AcrossEmptyLinesAndComments:} \qquad {\tt ACS\_Consecutive}$

```
#define SHORT_NAME 42
#define LONGER_NAME 0x007f
#define EVEN_LONGER_NAME (2)

#define foo(x) (x * x)

/* some comment */
#define bar(y, z) (y + z)
```

### 2.9 AlignEscapedNewlines

#### 2.9.1 AlignEscapedNewlines (EscapedNewlineAlignmentStyle)

```
Clang-format 5

在转义的换行符中对齐反斜杠的选项。
可能的值:
DontAlign Left Right

ENAS_DontAlign:

#define A \ int aaa; \ int b; \ int dddddddddd;
```

ENAS\_Left:

```
#define A \
int aaaa; \
int b; \
int dddddddddd;
```

#### ENAS\_Right:

```
#define A
int aaaa;
int b;
int ddddddddddd;
```

### 2.10 AlignOperands

#### 2.10.1 AlignOperands (OperandAlignmentStyle)



clang-format 12

如果为 true,则水平对齐二进制和三元表达式的操作数。

可能的值:

DontAlign Align AlignAfterOperator

OAS\_DontAlign: ContinuationIndentWidth

OAS\_Align:

具体地说,它将一个需要在多行中分割的单个表达式的操作数对齐,例如:

#### 当 BreakBeforeBinaryOperators

OAS\_AlignAfterOperator:

这类似于 AOS\_Align BreakBeforeBinaryOperators

### 2.11 AlignTrailingComments

### 2.11.1 AlignTrailingComments (Boolean)



clang-format 3.7

#### 如果为 true,则对齐尾随注释。

```
true false
int a; // My comment a
int b = 2; // comment a
int b = 2; // comment a
int b = 2; // comment about b
```

### 2.12 AllowAllArgumentsOnNextLine

### 2.12.1 AllowAllArgumentsOnNextLine (Boolean)



如果函数调用或花括号的初始化列表不能放在一行中,则允许将所有参数放到下一行,即使 BinPackArguments false。

```
true false

callFunction(
    a, b, c, d);

callFunction(a,
    b,
    c,
    d);
```

### 2.13 AllowAllConstructorInitializersOnNextLine

### 2.13.1 AllowAllConstructorInitializersOnNextLine (Boolean)



clang-format 9



此选项已弃用。

请参阅 PackConstructorInitializers NextLine。

### 2.14 AllowAllParametersOfDeclarationOnNextLine

### $2.14.1 \ Allow All Parameters Of Declaration On Next Line \ ( \ {\tt Boolean} \ )$



clang-format 3.3

如果函数声明不适合一行,则允许将函数声明的所有参数放到下一行,即使 BinPackParameters false。

```
true false

void myFunction(
   int a, int b, int c, int d, int e);

void myFunction(int a,
        int b,
        int c,
        int d,
        int d,
        int e);
```

### 2.15 AllowShortBlocksOnASingleLine

### $2.15.1 \ Allow Short Blocks On A Single Line \ (\ {\tt ShortBlockStyle}\ )$



依赖于值, while (true) {continue;

可能的值:

Never Empty Always

SBS\_Never:

```
while (true) {
}
while (true) {
continue;
}
```

SBS\_Empty:

```
while (true) {}
while (true) {
continue;
}
```

SBS\_Always:

```
while (true) {}
while (true) { continue; }
```

### $2.16\ Allow Short Case Labels On A Single Line$

### 2.16.1 AllowShortCaseLabelsOnASingleLine (Boolean)

```
clang-format 3.6
```

如果为 true,短 case

```
true    false

switch (a) {
    case 1: x = 1; break;
    case 2: return;
}

switch (a) {
    case 1:
    x = 1;
    break;
    case 2:
    return;
}
```

### 2.17 AllowShortEnumsOnASingleLine

### $2.17.1 \ Allow Short Enums On A Single Line \ ( \ {\tt Boolean} \ )$

```
clang-format 12
```

### 允许在单行上使用短的枚举。

```
true false
enum { A, B } myEnum;
enum
{
    A, B } myEnum;
}
```

### 2.18 AllowShortFunctionsOnASingleLine

#### 2.18.1 AllowShortFunctionsOnASingleLine (ShortFunctionStyle)

```
clang\hbox{-} format \ 3.5
根据值, int f() { return 0; }
可能的值:
  None
               InlineOnly
                                  Empty
                                                 Inline
                                                              All
SFS_None:
SFS_InlineOnly:
                                                        Inline
                                                                                             Empty:
 class Foo {
   void f() { foo(); }
 void f(
};
void f() {
   foo();
}
  void f() {
SFS_Empty:
 void f() {}
void f2() {
   bar2();
}
SFS_Inline:
                                                      Empty .
 class Foo {
   void f() { foo(); }
 void f() {
    foo();
 }
void f() {}
SFS_All:
 class Foo {
 void f() { foo(); }
};
void f() { bar(); }
```

### 2.19 AllowShortIfStatementsOnASingleLine

#### $2.19.1 \ Allow Short If Statements On A Single Line \ (\ {\tt Short If Style}\ )$

```
clang-format 9
如果为 true,则 if (a) return;
可能的值:
  Never
             WithoutElse
                               OnlyFirstIf
                                               AllIfsAndElse
SIS_Never:
                               if
 if (a)
     return;
 if (b)
 return;
else
     return;
 return;
else {
    return;
SIS_WithoutElse:
                              else, 只有当 else
                                                                              if
 if (a) return;
 if (b)
     return;
 else return;
 if (c) return;
 else {
    return;
                                            if,但不要放置 else if
SIS_OnlyFirstIf:
 if (a) return;
 if (b) return;
else if (b)
 return;
else
    return;
 if (c) return;
    return;
SIS_AllIfsAndElse:
                                                                     if
                           else
 if (a) return;
 if (b) return;
 if (c) return;
 else {
    return;
}
```

### 2.20 AllowShortLambdasOnASingleLine

#### 2.20.1 AllowShortLambdasOnASingleLine (ShortLambdaStyle)

```
clang-format 9
依赖于值, auto lambda []() { return 0; }
可能的值:
   None
               Empty
                           Inline
                                         All
SLS_None:
                            lambda
SLS_Empty:
                            lambda.
 auto lambda = [](int a) {}
auto lambda2 = [](int a) {
   return a;
SLS_Inline:
                                         lambda
 auto lambda = [](int a) {
   return a;
  sort(a.begin(), a.end(), ()[] { return x < y; })</pre>
SLS_All:
                             lambda
 auto lambda = [](int a) {}
auto lambda2 = [](int a) { return a; };
```

### $2.21\ Allow Short Loops On A Single Line$

### $2.21.1 \ Allow Short Loops On A Single Line \ ( \ {\tt Boolean} \ )$



clang-format 3.7

如果为 true

while (true) continue;

### 2.22 AlwaysBreakAfterDefinitionReturnType

### $2.22.1\ Always Break After Definition Return Type\ (\ {\tt DefinitionReturn TypeBreaking Style}\ )$



clang-format 3.7



该选项已弃用,为了向后兼容而保留。

函数定义返回要使用的类型中断样式。

可能的值:

None All TopLevel

 ${\tt DRTBS\_None}: \qquad \qquad {\tt PenaltyReturnTypeOnItsOwnLine}$ 

DRTBS\_All:

DRTBS\_TopLevel:

### $2.23 \ Always Break After Return Type$

### $2.23.1 \ Always Break After Return Type \ (\ {\tt Return Type Breaking Style} \ )$



clang-format 3.8

函数声明返回要使用的类型中断样式。

#### 可能的值:

None All TopLevel AllDefinitions TopLevelDefinitions

RTBS\_None:

Penalty Return Type On Its Own Line

```
class A {
    int f() { return 0; };
};
int f();
int f() { return 1; }
```

#### RTBS\_All:

```
class A {
int
f() {
    return 0;
};
int
f();
int
f() {
    return 1;
}
```

#### RTBS\_TopLevel:

```
class A {
    int f() { return 0; };
};
int
f();
int
f() {
    return 1;
}
```

#### RTBS\_AllDefinitions:

```
class A {
  int
  f() {
    return 0;
  };
  ;
  int f();
  int
  f() {
    return 1;
  }
}
```

#### ${\tt RTBS\_TopLevelDefinitions:}$

```
class A {
    int f() { return 0; };
};
int f();
int
f() {
    return 1;
}
```

### 2.24 AlwaysBreakBeforeMultilineStrings

### 2.24.1 AlwaysBreakBeforeMultilineStrings (Boolean)



clang-format 3.4

如果为 true, 总是在多行字符串字面值之前中断。

这个标志是为了使文件中有多个多行字符串的情况看起来更一致。因此,只有在此时包装字符串导致从行开始的 ContinuationIndentWidth 进时,它才会生效。

```
true false

aaaa =

"bbbb"
"cccc";

aaaa = "bbbb"
"cccc";
```

### 2.25 AlwaysBreakTemplateDeclarations

#### $2.25.1\ Always Break Template Declarations\ (\ {\tt Break Template Declarations Style}\ )$



clang-format 7

#### 要使用的模板声明中断样式。

#### 可能的值:

No MultiLine Yes

BTDS\_No:

#### Penalty Break Template Declaration

#### BTDS\_MultiLine:

#### BTDS\_Yes:

## 2.26 AttributeMacros

#### 2.26.1 AttributeMacros (List of Strings)



clang-format 12

字符串的向量,应该被解释为属性 限定符而不是标识符。这对于语言扩展或静态分析器注释很有用。

#### 例如:

```
x = (char *_capability)&y;
int function(void) __ununsed;
void only_writes_to_buffer(char *_output buffer);
```

#### 在 .clang-format

```
AttributeMacros: ['_capability', '_output', '_ununsed']
```

# 2.27 BinPackArguments

## 2.27.1 BinPackArguments (Boolean)



clang-format 3.7

如果为 false,函数调用的参数要么都在同一行,要么各一行。

## 2.28 BinPackParameters

## 2.28.1 BinPackParameters (Boolean)

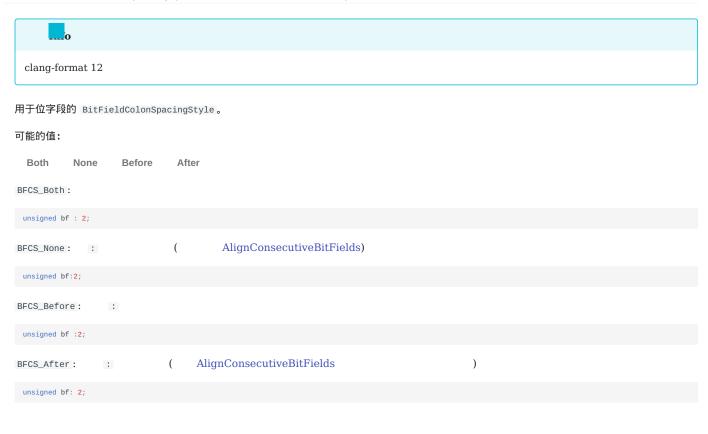


clang-format 3.7

如果为 false,函数声明或函数定义的形参要么都在同一行,要么各有一行。

# 2.29 BitFieldColonSpacing

## $2.29.1\ BitFieldColonSpacing \ (\ \verb|BitFieldColonSpacingStyle|)$



## 2.30 BraceWrapping

## 2.30.1 BraceWrapping (BraceWrappingFlags)



clang-format 3.8

控制大括号换行情况。

如果 BreakBeforeBraces

BS\_Custom,使用这个来指定应该如何处理每个单独的大括号。否则,这将被忽略。

```
# Example of usage:
BreakBeforeBraces: Custom
BraceWrapping:
AfterEnum: true
AfterStruct: false
SplitEmptyFunction: false
```

#### 嵌套的配置标记:

• bool AfterCaseLabel : case

• bool AfterClass : class

```
true false
class foo {};
class foo
{};
```

• BraceWrappingAfterControlStatementStyle AfterControlStatement : (if/for/while/switch/...)

#### 可能的值:

Never MultiLine Always

BWACS\_Never:

```
if (foo()) {
} else {
}
for (int i = 0; i < 10; ++i) {
}</pre>
```

BWACS\_MultiLine:

```
if (foo && bar &&
    baz)
{
    quux();
}
while (foo || bar) {
}
```

BWACS\_Always:

```
if (foo())
{
} else
{}
for (int i = 0; i < 10; ++i)
{}</pre>
```

• bool AfterEnum : enum

```
true false
```

```
enum X : int
{
          B
};
enum X : int { B };
```

• bool AfterFunction :

```
true false
```

```
void foo()
{
    bar();
    bar2();
}

void foo() {
    bar();
    bar2();
}
```

bool AfterNamespace : namespace

```
true false

namespace {
    int foo();
    int bar();
}

namespace {
    int foo();
    int bar();
}
```

• bool AfterObjCDeclaration : ObjC (interfaces, implementations...). @autoreleasepool @synchronized AfterControlStatement

• bool AfterStruct : struct

```
true false

struct foo {
    int x;
};

struct foo {
    int x;
};
```

• bool AfterUnion : union

```
true false
union foo {
   int x;
}
union foo {
   int x;
}
```

• bool AfterExternBlock : extern

```
true false

extern "C" {
  int foo();
}

extern "C" {
  int foo();
}
```

• bool BeforeCatch : catch

```
true false

try {
    foo();
}
catch () {
}

try {
    foo();
} catch () {
}
```

• bool BeforeElse : else

```
true false

if (foo()) {
} else {
}

if (foo()) {
} else {
}
```

• bool BeforeLambdaBody : lambda

```
true false

connect(
    []()
    {
        foo();
        bar();
    });

connect([]() {
        foo();
        bar();
    });
```

• bool BeforeWhile : while

```
true false

do {
    foo();
}
while (1);

do {
    foo();
} while (1);
```

- bool IndentBraces :
- bool SplitEmptyFunction: false,则空函数体可以放在一行上。该选项仅在函数的左括号已经被包装的情况下使用,即设置了
   AfterFunction / (AllowShortFunctionsOnASingleLine)

```
true false
int f()
{
}
int f()
{}
```

• bool SplitEmptyRecord : false , 空记录 例如类 , 结构体或联合 主体可以放在一行上。此选项仅在记录的开括号已经被包装时使用,即 设置了 AfterClass ( )

```
true flase

class Foo
{
}
```

• bool SplitEmptyNamespace : false ,则空的命名空间主体可以放在一行上。该选项仅在名称空间的左大括号已经被包装时使用,即设置了 AfterNamespace

# true false namespace Foo { } namespace Foo { }

# 2.31 BreakAfterJavaFieldAnnotations

## $2.31.1\ Break After Java Field Annotations\ (\ {\tt Boolean}\ )$



clang-format 3.8

在 Java

true false

@Partial @Mock DataLoad loader;

@Partial @Mock DataLoad loader;

# 2.32 BreakBeforeBinaryOperators

#### 2.32.1 BreakBeforeBinaryOperators (BinaryOperatorStyle)



clang-format 3.6

#### 二元运算符换行的方式。

#### 可能的值:

None NonAssignment All

#### BOS\_None:

#### BOS\_NonAssignment:

#### BOS\_All:

# 2.33 BreakBeforeBraces

# $2.33.1 \; BreakBeforeBraces ( {\tt BraceBreakingStyle})$



clang-format 3.7

要使用的大括号中断样式。

可能的值:

Attach Linux Mozilla Stroustrup Allman Whitesmiths GNU WebKit Custom

BS\_Attach:

```
namespace N {
 E1,
  E2,
class C {
public:
 C();
bool baz(int i) {
  try {
    do {
        switch (i) {
        case 1: {
foobar();
break;
      break;
}

       }
default: {
  } while (--i);
return true;
} catch (...) {
     handleError();
return false;
void foo(bool b) {
  if (b) {
    baz(2);
  } else {
  baz(5);
void bar() { foo(true); }
} // namespace N
```

BS\_Linux: Attach

```
namespace N
 {
enum E {
  E1,
   E2,
 };
 class C
 public:
 bool baz(int i)
default: {
         break;
    }
} while (--i);
   return true;
} catch (...) {
handleError();
  void foo(bool b)
 {
  if (b) {
    baz(2);
    co {
   } else {
      baz(5);
  void bar() { foo(true); }
 } // namespace N
```

BS\_Mozilla: Attach - 50/154 - Copyright © The Clang Team.

# 2.34 BreakBeforeConceptDeclarations

# $2.34.1\ BreakBefore Concept Declarations\ (\ {\tt Boolean}\ )$

```
clang-format 13
```

如果为 true, concept

```
true false
template<typename T>
concept ...
template<typename T> concept ...
```

# 2.35 BreakBeforeTernaryOperators

## 2.35.1 BreakBeforeTernaryOperators (Boolean)



clang-format 3.7

#### 如果为 true,将在换行符之后放置三元操作符。

true

veryVeryVeryVeryVeryVeryVeryVeryVeryVeryLongDescription
? firstValue
: SecondValueVeryVeryVeryLong;

## 2.36 BreakConstructorInitializers

#### 2.36.1 BreakConstructorInitializers (BreakConstructorInitializersStyle)



clang-format 5

#### 要使用的构造函数初始化式样式。

#### 可能的值:

BeforeColon BeforeComma AfterColon

#### BCIS\_BeforeColon:

Constructor()
 : initializer1(),
 initializer2()

#### BCIS\_BeforeComma:

Constructor()
 : initializer1()
 , initializer2()

#### BCIS\_AfterColon:

Constructor() :
 initializer1(),
 initializer2()

## 2.37 BreakInheritanceList

## 2.37.1 BreakInheritanceList (BreakInheritanceListStyle)



#### 要使用的继承列表样式。

#### 可能的值:

BeforeColon BeforeComma AfterColon

#### BILS\_BeforeColon:

#### BILS\_BeforeComma:

#### BILS\_AfterColon:

```
class Foo :
    Base1,
    Base2
{};
```

# 2.38 BreakStringLiterals

## 2.38.1 BreakStringLiterals (Boolean)



clang-format 3.9

#### 允许在格式化时中断字符串文字。

# 2.39 ColumnLimit

# 2.39.1 ColumnLimit (Unsigned)



clang-format 3.7

列的限制。

列限制为 0

clang-format

# 2.40 CommentPragmas

## 2.40.1 CommentPragmas (String)



clang-format 3.7

一个正则表达式,它描述具有特殊含义的注释,不应该将注释分成行或以其他方式更改注释。

```
// CommentPragmas: '^ FOOBAR pragma:'
// Will leave the following line unaffected
#include <vector> // FOOBAR pragma: keep
```

# 2.41 CompactNamespaces

#### 2.41.1 CompactNamespaces (Boolean)



clang-format 5

如果为 true,连续的名称空间声明将在同一行上。如果为 false,则每个名称空间都声明在一个新的行中。

```
true false

namespace Foo { namespace Bar {
}}

namespace Foo {
namespace Bar {
}}
```

如果它不能放在一行中,溢出的名称空间将被包装:

```
namespace Foo { namespace Bar {
namespace Extra {
}}}
```

# 2.42 ConstructorInitializerAllOnOneLineOrOnePerLine

## $2.42.1\ Constructor Initializer All On One Line Or One Per Line\ (\ {\tt Boolean}\ )$



clang-format 3.7



此选项已弃用。

请参阅 PackConstructorInitializers CurrentLine。

# 2.43 ConstructorInitializerIndentWidth

# $2.43.1\ ConstructorInitializerIndentWidth\ (\ {\tt Unsigned}\ )$



clang-format 3.7

用于缩进构造函数初始化列表和继承列表的字符数。

# 2.44 ContinuationIndentWidth

## 2.44.1 ContinuationIndentWidth (Unsigned)



clang-format 3.7

#### 连续行缩进宽度。

```
ContinuationIndentWidth: 2

int i = // VeryVeryVeryVeryLongComment
  longFunction( // Again a long comment
    arg);
```

# 2.45 Cpp11BracedListStyle

#### 2.45.1 Cpp11BracedListStyle (Boolean)



clang-format 3.4

如果为 true,将带大括号的列表格式化为最适合 C++11

#### 重要区别:

true

- 括号内没有空格。
- 在右括号之前不能换行。
- 使用延续缩进,而不是使用块缩进。

基本上, 带大括号的 C++11

false

(

```
clang-format {}
```

```
vector<int> x{1, 2, 3, 4};
vector<T> x{{}, {}, {}, {}};
f(MyMap[{composite, key}]);
new int[3]{1, 2, 3};

vector<int> x{ 1, 2, 3, 4 };
vector<T> x{ {}, {}, {}, {}, {}};
f(MyMap[{ composite, key }]);
new int[3]{ 1, 2, 3 };
```

# 2.46 DeriveLineEnding

# 2.46.1 DeriveLineEnding (Boolean)



clang-format 11

分析格式化文件中最常用的行结束符 \r\n 或 \n)

UseCRLF

# 2.47 DerivePointerAlignment

# 2.47.1 DerivePointerAlignment (Boolean)



clang-format 3.7

如果为 true,分析格式化文件,以确定最常见的 & \*
PointerAlignment

# 2.48 DisableFormat

# 2.48.1 DisableFormat (Boolean)



clang-format 3.7

完全禁用格式。

# 2.49 EmptyLineAfterAccessModifier

#### $2.49.1\ Empty Line After Access Modifier (\ {\tt EmptyLineAfter Access Modifier Style}\ )$



定义何时在访问修饰符后放置空行。 EmptyLineBeforeAccessModifier

可能的值:

Never Leave Always

ELAAMS\_Never:

```
struct foo {
private:
   int i;
protected:
   int j;
   /* comment */
public:
   foo() {}
private:
protected:
};
```

ELAAMS\_Leave:

 $MaxEmptyLinesToKeep_{\bullet}$ 

ELAAMS\_Always:

 $MaxEmptyLinesToKeep_{\bullet}$ 

```
struct foo {
private:
    int i;
protected:
    int j;
    /* comment */
public:
    foo() {}
private:
protected:
};
```

## 2.50 EmptyLineBeforeAccessModifier

#### $2.50.1\ Empty Line Before Access Modifier\ (\ {\tt EmptyLine Before Access Modifier Style}\ )$



定义在何种情况下在访问修饰符之前放置空行。

#### 可能的值:

Never Leave LogicalBlock Always

#### ELBAMS\_Never:

```
struct foo {
private:
   int i;
protected:
   int j;
   /* comment */
public:
   foo() {}
private:
protected:
};
```

#### ELBAMS\_Leave:

#### ELBAMS\_LogicalBlock:

```
struct foo {
private:
   int i;

protected:
   int j;
   /* comment */
public:
   foo() {}

private:
protected:
};
```

#### ELBAMS\_Always:

```
struct foo {
private:
   int i;

protected:
   int j;
   /* comment */

public:
   foo() {}

private:

protected:
};
```

# 2.51 ExperimentalAutoDetectBinPacking

## 2.51.1 ExperimentalAutoDetectBinPacking (Boolean)



clang-format 3.7

如果为 true, clang-format

每个调用都可以被包含,每行或不确定。如果它是不确定的,例如完全在一行上,但需要做出决定, clang-format 况,并相应地采取行动。



这是一个实验性的标志,它可能会消失或被重命名。不要在配置文件中使用它,等等。使用时自负风险。

# 2.52 FixNamespaceComments

## 2.52.1 FixNamespaceComments (Boolean)

```
clang-format 5
```

如果为 true, clang-format

ShortNamespace Lines

```
true false

namespace a {
    foo();
    bar();
} // namespace a

namespace a {
    foo();
    bar();
}
```

## 2.53 ForEachMacros

## $2.53.1 \, For Each Macros (\, \mbox{List of Strings} \, )$



clang-format 3.7

宏的矢量,应该解释为 foreach

这些应该是以下形式的宏:

FOREACH(<variable-declaration>, ...)
 <loop-body>

在 .clang-format

ForEachMacros: ['RANGES\_FOR', 'FOREACH']

例如 BOOST\_FOREACH

# 2.54 IfMacros

## 2.54.1 IfMacros (List of Strings)



clang-format 14

应解释为条件而不是函数调用的宏向量。

这些期望是以下形式的宏:

在 .clang-format

IfMacros: ['IF']

例如: KJ\_IF\_MAYBE

### 2.55 IncludeBlocks

### 2.55.1 IncludeBlocks (IncludeBlocksStyle)



clang-format 7

### 根据这个值,可以将多个 #include

#### 可能的值:

Preserve Merge Regroup

IBS\_Preserve: #include

#include "b.h" into #include "b.h"

#include <lib/main.h> #include "a.h"

#include "a.h" #include <lib/main.h>

IBS\_Merge: #include

IBS\_Regroup: #include IncludeCategories.

### 2.56 IncludeCategories

### 2.56.1 IncludeCategories (List of IncludeCategories)



clang-format 7

正则表达式表示用于排序 #include #include

支持 POSIX

这些正则表达式按顺序匹配包含的文件名 包括<> 或 "") 个类别内按字母顺序排序。

如果所有正则表达式都不匹配,则 INT\_MAX docs/CodingStandards.html#include-style)

0。因此它通常保存在 #include (https://llvm.org/

#include

3 7

当 IncludeBlocks = IBS\_Regroup SortPriority #include Priority
#include SortPriority,则将其设置为 Priority

每个正则表达式都可以用大小写敏感字段标记为区分大小写,但默认情况下它不是。

#### 要在 .clang-format

```
IncludeCategories:

- Regex: '^"(llvm|llvm-c|clang|clang-c)/'
Priority: 2
SortPriority: 2
CaseSensitive: true

- Regex: '^(<|"(gtest|gmock|isl|json)/)'
Priority: 3
- Regex: '<[:alnum:].]+>'
Priority: 4
- Regex: '.*'
Priority: 1
SortPriority: 0
```

# 2.57 IncludeIsMainRegex

### 2.57.1 IncludeIsMainRegex (String)



# 2.58 IncludeIsMainSourceRegex

### 2.58.1 IncludeIsMainSourceRegex (String)



### 2.59 IndentAccessModifiers

### 2.59.1 IndentAccessModifiers (Boolean)



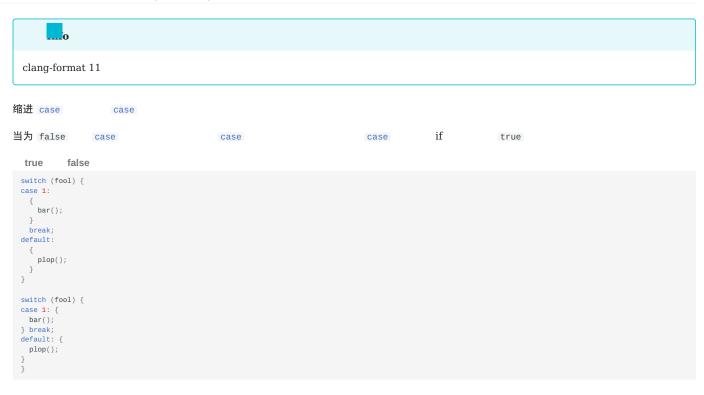
clang-format 13

指定访问修饰符是否应该有自己的缩进级别。

当为 false( )AccessModifierOffset。记录成员缩进比记录低一级。当为 true将获得自己的缩进级别。因此,记录成员总是比记录缩进 2AccessModifierOffset

### 2.60 IndentCaseBlocks

### 2.60.1 IndentCaseBlocks (Boolean)



### 2.61 IndentCaseLabels

### 2.61.1 IndentCaseLabels (Boolean)

```
clang-format 3.3

缩进 case switch

当为 false switch switch case (case
代码 除非启用了 IndentCaseBlocks)

true false

switch (fool) {
    case 1:
        bar();
        break;
    default:
        plop();
    }

switch (fool) {
    case 1:
        bar();
        break;
    default:
    plop();
}
```

### 2.62 IndentExternBlock

### 2.62.1 IndentExternBlock (IndentExternBlockStyle)



IndentExternBlockStyle extern

### 可能的值:

AfterExternBlock NoIndent Indent

IEBS\_AfterExternBlock: AfterExternBlock

```
IndentExternBlock: AfterExternBlock
BraceWrapping.AfterExternBlock: true
```

```
extern "C"
{
    void foo();
}
```

```
IndentExternBlock: AfterExternBlock
BraceWrapping.AfterExternBlock: false
```

```
extern "C" {
void foo();
}
```

#### IEBS\_NoIndent:

```
extern "C" {
void foo();
}
```

### IEBS\_Indent:

```
extern "C" {
    void foo();
}
```

### 2.63 IndentGotoLabels

### 2.63.1 IndentGotoLabels (Boolean)



缩进 goto

当为 false goto

```
true false

int f() {
    if (foo()) {
    label1:
        bar();
}
label2:
    return 1;
}

int f() {
    if (foo()) {
    label1:
        bar();
}
label1:
    return 1;
}
```

### 2.64 IndentPPDirectives

### 2.64.1 IndentPPDirectives (PPDirectiveIndentStyle)



clang-format 6

### 要使用的预处理器指令缩进样式。

### 可能的值:

None AfterHash BeforeHash

#### PPDIS\_None:

```
#if F00
#if BAR
#include <foo>
#endif
#endif
```

PPDIS\_AfterHash: #后的指令。

```
#if F00
# if BAR
# include <foo>
# endif
#endif
```

PPDIS\_BeforeHash: #前缩进指令。

```
#if FOO
#if BAR
#include <foo>
#endif
#endif
```

# 2.65 IndentRequires

### 2.65.1 IndentRequires (Boolean)



clang-format 13

### 在模板中缩进 requires

```
true false

template <typename It>
    requires Iterator<It>
void sort(It begin, It end) {
    //....
}

template <typename It>
requires Iterator<It>
void sort(It begin, It end) {
    //....
}
```

# 2.66 IndentWidth

 $IndentWidth \ (\ {\tt Unsigned}\ )$ 



clang-format 3.7

### 用于缩进的列数。

```
IndentWidth: 3

void f() {
    someFunction();
    if (true, false) {
       f();
    }
}
```

# 2.67 IndentWrappedFunctionNames

### 2.67.1 IndentWrappedFunctionNames (Boolean)



clang-format 3.7

### 如果函数定义或声明包装在类型之后,则缩进。

true false

 $LooooooooooooooooooooooooogReturnType \\ LooooooooooooooooooooooooogFunctionDeclaration();$ 

# 2.68 InsertTrailingCommas

### 2.68.1 InsertTrailingCommas (TrailingCommaStyle)



clang-format 12

如果设置为 TCS\_Wrapped ,则会在跨多行换行的容器文本 数组和对象 中插入末尾的逗号。它目前仅 JavaScript

TCS\_None。 InsertTrailingCommas BinPackArguments

### 可能的值:

None Wrapped

TCS\_None:

TCS\_Wrapped:

( )

# 2.69 JavalmportGroups

2.69.1 JavalmportGroups (List of Strings)



一个由 Java

一个组的前缀可以是另一个组的子集 总是匹配最长的前缀。在组中,导入按字典顺序排序。静态导入被单独分组,并遵循相同的分组规则。默认情况下,静态导入被放置在非静态导入之前,但是这个行为会被另一个选项 SortJavaStaticImport

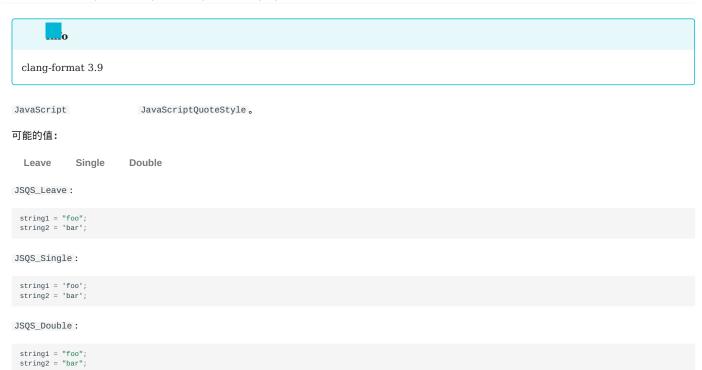
```
在 .clang-format yaml Java

JavaImportGroups: ['com.example', 'com', 'org']

import static com.example.function1;
import static com.example.function2;
import static org.example.function3;
import com.example.ClassA;
import com.example.a.classB;
import com.example.a.classB;
import com.example.a.classC;
import org.example.ClassD;
```

# 2.70 JavaScriptQuotes

### 2.70.1 JavaScriptQuotes (JavaScriptQuoteStyle)



# 2.71 JavaScriptWrapImports

### 2.71.1 JavaScriptWrapImports (boolean)

```
....0
```

clang-format 3.9

```
是否包装 JavaScript /
```

```
true false
import {
    VeryLongImportsAreAnnoying,
    VeryLongImportsAreAnnoying,
    VeryLongImportsAreAnnoying,
    VeryLongImportsAreAnnoying,
} from 'some/module.js'
import {VeryLongImportsAreAnnoying, VeryLongImportsAreAnnoying, From "some/module.js"
```

# $2.72\ Keep Empty Lines At The Start Of Blocks$

# $2.72.1~KeepEmptyLinesAtTheStartOfBlocks~(~{\tt Boolean}~)$

```
clang-format 3.7
```

如果为 true,则保留块开头的空行。

```
true false
if (foo) {
    bar();
}
if (foo) {
    bar();
}
```

# 2.73 LambdaBodyIndentation

### $2.73.1\ Lamb da Body Indentation\ (\ {\tt Lamb da Body Indentation Kind}\ )$

```
clang-format 13
lambda
                                            lambda
                                                                                                          OuterScope
                                                                                                                              lambda
lambda
                                                                                                                                        ΚJ
                                                                                                    OuterScope
OuterScope _{\circ} KJ
  Signature
                  OuterScope
LBI_Signature:
                          lambda
                                              lambda
 someMethod(
   [](SomeReallyLongLambdaSignatureArgument foo) {
    return;
});
LBI_OuterScope:
                            lambda
                                                                             lambda
 someMethod(
   [](SomeReallyLongLambdaSignatureArgument foo) { return;
```

# 2.74 Language

### 2.74.1 Language (LanguageKind)



clang-format 3.5

语言,这种格式风格是针对的。

可能的值:

None Cpp CSharp Java JavaScript ObjC Proto TableGen TextProto

LK\_None:

LK\_Cpp: C, C++。

LK\_CSharp: C#.

LK\_Java: Java.

LK\_JavaScript: JavaScript.

LK\_ObjC: Objective-C, Objective-C++.

LK\_Proto: (https://developers.google.com/protocol-buffers)

LK\_TableGen: TableGen

 ${\tt LK\_TextProto:} \qquad \qquad (https://developers.google.com/protocol-buffers)$ 

# 2.75 MacroBlockBegin

### 2.75.1 MacroBlockBegin (String)



clang-format 3.7

### 匹配开始块的宏的正则表达式。

```
MacroBlockBegin: "^NS_MAP_BEGIN|\
NS_TABLE_HEAD$"
MacroBlockEnd: "^\
NS_MAP_END|\
NS_TABLE_.*_END$"
```

#### With Without

```
NS_MAP_BEGIN
foo();
NS_MAP_END
NS_TABLE_HEAD
bar();
NS_TABLE_FOO_END
NS_MAP_BEGIN
foo();
NS_MAP_END
NS_TABLE_HEAD
bar();
NS_TABLE_FOO_END
```

# 2.76 MacroBlockEnd

# 2.76.1 MacroBlockEnd (String)



clang-format 3.7

匹配以块结束的宏的正则表达式。

# 2.77 MaxEmptyLinesToKeep

### 2.77.1 MaxEmptyLinesToKeep (Unsigned)

```
clang-format 3.7
```

### 要保留的最大连续空行数。

```
MaxEmptyLinesToKeep: 0

int f() {
    int = 1;
        int i = 1;
        i = foo();
    return i;
}
```

# 2.78 NamespaceIndentation

### $2.78.1\ Name space Indentation\ (\ {\tt Name space Indentation Kind}\ )$

# 2.79 NamespaceMacros

### 2.79.1 NamespaceMacros (List of Strings)



clang-format 9

用于打开命名空间块的宏的向量。

这些应该是以下形式的宏:

```
NAMESPACE(<namespace-name>, ...) {
    <namespace-content>
}
```

例如 TESTSUITE

# 2.80 ObjCBinPackProtocolList

### 2.80.1 ObjCBinPackProtocolList (BinPackStyle)



控制包装 Objective-C ColumnLimit。

如果是 Auto ( ) BinPackParameters Objective-C

超过 ColumnLimit。

如果是 Always, 那么当 Objective-C ColumnLimit

如果是 Never, 当超过 ColumnLimit Objective-C

• Always ( Auto, BinPackParameters=true)

• Never ( Auto, BinPackParameters=false)

### 可能的值:

- BPS\_Auto:
- BPS\_Always:
- BPS\_Never:

# 2.81 ObjCBlockIndentWidth

# $2.81.1\ ObjCBlockIndentWidth\ (\ {\tt Unsigned}\ )$



clang-format 3.7

### 用于 ObjC

```
ObjCBlockIndentWidth: 4

[operation setCompletionBlock:^{
    [self onOperationDone];
}];
```

# 2.82 ObjCBreakBeforeNestedBlockParam

### 2.82.1 ObjCBreakBeforeNestedBlockParam (Boolean)



clang-format 12

当函数调用中有嵌套的块形参时,将形参列表分成几行。

# 2.83 ObjCSpaceAfterProperty

# 2.83.1 ObjCSpaceAfterProperty (Boolean)



# $2.84\ ObjCSpaceBeforeProtocolList$

# 2.84.1 ObjCSpaceBeforeProtocolList (Boolean)



# 2.85 PPIndentWidth

### $2.85.1 \; PPIndentWidth \; (Integer)$



clang-format 14

用于缩进预处理器语句的列数。 当设置为 (默认)时IndentWidth

#ifdef \_\_linux\_\_
# define F00
#else
# define BAR
#endif

### 2.86 PackConstructorInitializers

### $2.86.1\ Pack Constructor Initializers\ (\ {\tt Pack Constructor Initializers Style}\ )$



clang-format 14

#### 要使用的包构造函数初始值设定项样式。

#### 可能的值:

Never BinPack

ack CurrentLine

NextLine

#### PCIS\_Never:

```
Constructor()
: a(),
b()
```

#### PCIS\_BinPack: Bin-pack

#### PCIS\_CurrentLine:

### PCIS\_NextLine: PCIS\_CurrentLine

# 2.87 PenaltyBreakAssignment

# 2.87.1 PenaltyBreakAssignment (Unsigned)



clang-format 5

突破赋值运算符的补偿。

# $2.88\ Penalty Break Before First Call Parameter$

# $2.88.1\ Penalty Break Before First Call Parameter\ (\ {\tt Unsigned}\ )$



clang-format 3.7

call(

# 2.89 PenaltyBreakComment

# $2.89.1\ Penalty Break Comment \ (\ {\tt Unsigned}\ )$



clang-format 3.7

注释中引入的每个换行符的补偿。

# $2.90\ Penalty Break First Less Less$

# $2.90.1\ Penalty Break First Less Less\ (\ {\tt Unsigned}\ )$



clang-format 3.7

在第一个 <<

# 2.91 PenaltyBreakString

### 2.91.1 PenaltyBreakString (Unsigned)



clang-format 3.7

在字符串文字中引入的每个换行符的补偿。

# $2.92\ Penalty Break Template Declaration$

### $2.92.1\ Penalty Break Template Declaration\ (\ {\tt Unsigned}\ )$



clang-format 7

模板声明后中断的补偿。

# 2.93 PenaltyExcessCharacter

### 2.93.1 PenaltyExcessCharacter (Unsigned)



clang-format 3.7

列限制之外的每个字符的补偿。

# 2.94 PenaltyIndentedWhitespace

### $2.94.1\ PenaltyIndented Whitespace\ (\ {\tt Unsigned}\ )$



clang-format 12

空格缩进的每个字符的补偿(相对于前导非空格列计算)。

# $2.95\ Penalty Return Type On Its Own Line$

### 2.95.1 PenaltyReturnTypeOnItsOwnLine (Unsigned)

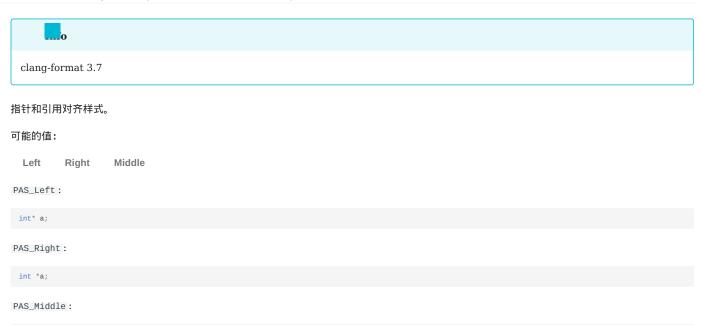


clang-format 3.7

将函数的返回类型放在它自己的行上的补偿。

# 2.96 PointerAlignment

### $2.96.1\ Pointer Alignment\ (\ {\tt Pointer Alignment Style}\ )$



最后更新

int \* a;

### 2.97 QualifierAlignment

#### 2.97.1 QualifierAlignment (QualifierAlignmentStyle)



排列说明符和限定符的不同方式 (例如 const / volatile )。

```
Waring
将 QualifierAlignment Leave clang-format
定。因此,应格外小心地审查使用此选项所做的代码更改。

可能的值:
Leave Left Right Custom

QAS_Leave: /
int const a; const int *a;

QAS_Left: /
const int a; const int *a;
```

QAS\_Right: /
int const a;
int const \*a;

QAS\_Custom: / QualifierOrder

QualifierOrder: ['inline', 'static' , 'type', 'const']
int const a;
int const \*a;

# 2.98 QualifierOrder

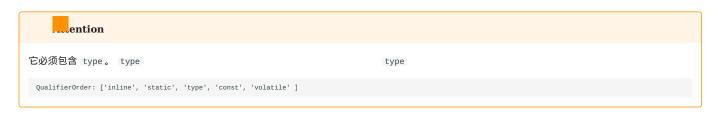
#### $2.98.1 \, Qualifier Order (\, \text{List of Strings} \,)$



clang-format 14

限定符出现的顺序。顺序是一个数组,可以包含以下任何一项:

- const
- inline
- static
- constexpr
- volatile
- restrict
- type



### 2.99 RawStringFormats

#### 2.99.1 RawStringFormats (List of RawStringFormats)



clang-format 6

定义在原始字符串中检测支持的语言代码块的提示。

带有匹配的分隔符或包含匹配的函数名的原始字符串将根据 .clang-format 果在 clang-format BasedOnStyle

BasedOnStyle,则格式化基于

11vm

如果指定了规范分隔符,同一语言中出现的其他分隔符将尽可能更新为规范。

每种语言最多应该有一个规范,每个分隔符和包围函数不应该出现在多个规范中。

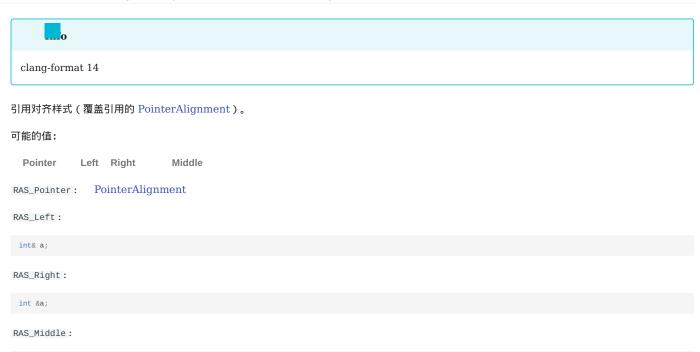
#### 要在 .clang-format

```
RawStringFormats:

- Language: TextProto
Delimiters:
- 'pb'
- 'proto'
EnclosingFunctions:
- 'PARSE_TEXT_PROTO'
BasedOnStyle: google
- Language: Cpp
Delimiters:
- 'cc'
- 'cpp'
BasedOnStyle: llvm
CanonicalDelimiter: 'cc'
```

### 2.100 ReferenceAlignment

### $2.100.1\ Reference A lignment \ (\ {\tt Reference Alignment Style}\ )$



最后更新

int & a;

#### 2.101 ReflowComments

#### 2.101.1 ReflowComments (Boolean)



clang-format 4

#### 如果为 true, clang-format

# 

### 2.102 ShortNamespaceLines

#### 2.102.1 ShortNamespaceLines (Unsigned)



clang-format 14

短名称空间所跨的未换行的最大行数。默认为 1。

这通过计算未换行的行 即不包含打开或关闭名称空间大括号 来确定短名称空间的最大长度,并**使**xNamespaceComments 结束注释。

```
ShortNamespaceLines: 1 vs. ShortNamespaceLines: 0

namespace a {
    int foo;
    } // namespace a

ShortNamespaceLines: 1 vs. ShortNamespaceLines: 0

namespace b {
    int foo;
    int foo;
    int foo;
    int bar;
} // namespace b
} // namespace b
} // namespace b
```

#### 2.103 SortIncludes

#### 2.103.1 SortIncludes (SortIncludesOptions)



控制 clang-format #include 。如果没有,则包含永远不会排序。如果不区分大小写,则包含以 ascii 或不区分大小写的方式排序。如果区分大小写,则包含按字母或区分大小写的方式排序。

#### 可能的值:

Never CaseSensitive CaseInsensitive

#### SI\_Never:

```
#include "B/A.h"
#include "A/B.h"
#include "a/b.h"
#include "A/b.h"
#include "B/A.h"
```

#### ${\tt SI\_CaseSensitive:include}$

```
#include "A/B.h"
#include "A/b.h"
#include "B/A.h"
#include "B/A.h"
#include "a/b.h"
```

#### SI\_CaseInsensitive: include

```
#include "A/B.h"

#include "A/b.h"

#include "a/b.h"

#include "B/A.h"

#include "B/A.h"
```

### 2.104 SortJavaStaticImport

### $2.104.1\ SortJavaStaticImport\ (\ SortJavaStaticImport0ptions\ )$



clang-format 12

在对 Java

Java Static Import After Import

后。

可能的值:

Before After

SJSIO\_Before:

import static org.example.function1;
import org.example.ClassA;

SJSIO\_After:

import org.example.ClassA;
import static org.example.function1;

### 2.105 SortUsingDeclarations

#### 2.105.1 SortUsingDeclarations (Boolean)



clang-format 5

如果为 true, clang-format

使用声明的顺序定义如下 使用::

称。按字典顺序对名称列表进行排序,其中个人名称的排序顺序是所有非名称空间名称出现在所有名称空间名称之前,并且在这些组中,名称不区分大 小写。

true false
using std::cin;
using std::cout;
using std::cout;
using std::cin;

# 2.106 SpaceAfterCStyleCast

### 2.106.1 SpaceAfterCStyleCast (Boolean)



clang-format 3.5

如果为 true,则在 C

true false

(int) i; (int)i;

# 2.107 SpaceAfterLogicalNot

### 2.107.1 SpaceAfterLogicalNot (Boolean)



#### 如果为 true,则在逻辑否操作符!)

```
true false
! someExpression();
!someExpression();
```

# $2.108 \; Space After Template Keyword$

### $2.108.1\ Space After Template Keyword\ (\ {\tt Boolean}\ )$



clang-format 4

如果为 true,则在 template

template <int> void foo();
template<int> void foo();

### 2.109 SpaceAroundPointerQualifiers

### $2.109.1\ Space Around Pointer Qualifiers\ (\ Space Around Pointer Qualifiers Style\ )$



clang-format 12

#### 定义在何种情况下在指针限定符之前或之后放置空格

#### 可能的值:

Default Before After Both

SAPQ\_Default:

PointerAlignment.

PointerAlignment: Left PointerAlignment: Right

void\* const\* x = NULL; vs. void \*const \*x = NULL;

#### SAPQ\_Before:

PointerAlignment: Left PointerAlignment: Right

void\* const\* x = NULL; vs. void \* const \*x = NULL;

#### SAPQ\_After:

PointerAlignment: Left PointerAlignment: Right

void\* const \* x = NULL; vs. void \*const \*x = NULL;

#### SAPQ\_Both:

PointerAlignment: Left PointerAlignment: Right

void\* const \* x = NULL; vs. void \* const \*x = NULL;

### 2.110 SpaceBeforeAssignmentOperators

#### 2.110.1 SpaceBeforeAssignmentOperators (Boolean)



clang-format 3.7

如果为 false,则在赋值操作符之前删除空格。

```
true false

int a = 5;
a += 42;

int a= 5;
a+= 42;
```

### 2.111 SpaceBeforeCaseColon

#### 2.111.1 SpaceBeforeCaseColon (Boolean)



clang-format 12

#### 如果为 false,则在 case

```
true false
switch (x) {
case 1 : break;
}
switch (x) {
case 1: break;
}
```

### 2.112 SpaceBeforeCpp11BracedList

### 2.112.1 SpaceBeforeCpp11BracedList (Boolean)

# 2.113 SpaceBeforeCtorInitializerColon

### $2.113.1\ SpaceBeforeCtorInitializerColon\ (\ {\tt Boolean}\ )$



clang-format 7

如果为 false, 在构造函数初始化器冒号之前的空格将被删除。

Foo::Foo(): a(a) {}
Foo::Foo(): a(a) {}

# 2.114 SpaceBeforeInheritanceColon

### 2.114.1 SpaceBeforeInheritanceColon (Boolean)



clang-format 7

如果为 false, 在继承冒号之前的空格将被删除。

```
true false
class Foo: Bar {}

class Foo: Bar {}
```

### 2.115 SpaceBeforeParens

#### 2.115.1 SpaceBeforeParens (SpaceBeforeParensOptions)

```
clang\hbox{-} format \ 3.5
定义在何种情况下在开括号前放空格。
可能的值:
                                                                                                                   Always
  Never
             ControlStatements
                                      ControlStatementsExceptForEachMacros
                                                                                      NonEmptyParentheses
SBPO_Never:
 void f() {
   if(true) {
     f();
SBPO_ControlStatements:
                                                 ( for / if / while ...)
 void f() {
   if (true) {
     f();
{\tt SBPO\_ControlStatementsExceptForEachMacros:}
                                                                                                               ForEach
                                                                                                                                    ForEach
                                                     SBPO_ControlStatements
为函数调用而不是控制语句的项目中非常有用。
 void f() {
    Q_FOREACH(...) {
        f();
SBPO_NonEmptyParentheses:
                                                                                  ()
 void() {
   if (true) {
        f();
g (x, y, z);
                                                                                       )
                                                                                                               (
SBPO_Always:
 void f () {
   if (true) {
     f ();
}
```

#### 2.116 SpaceBeforeParensOptions

#### 2.116.1 SpaceBeforeParensOptions (SpaceBeforeParensCustom)



clang-format 14

控制括号前的单个空格。

如果 SpaceBeforeParens custom,则使用它来指定应如何处理括号大小写前的每个单独的空格。否则,这将被忽略。

#### 用法示例:

```
SpaceBeforeParens: Custom
SpaceBeforeParensOptions:
AfterControlStatements: true
AfterFunctionDefinitionName: true
Nested configuration flags:
```

• bool AfterControlStatements: true,则在控制语句关键字(for/if/while...

```
true: false: if (...) {} vs. if(...) {}
```

• bool AfterForeachMacros: true,则在 foreach

• bool AfterFunctionDeclarationName: true,则在函数声明名称和左括号之间放置一个空格。

• bool AfterFunctionDefinitionName: true,则在函数定义名称和左括号之间放置一个空格。

• bool AfterIfMacros: true,则在 if

• bool BeforeNonEmptyParentheses: true,则仅当括号不为空时才在括号前放置一个空格。

# $2.117\ Space Before Range Based For Loop Colon$

### $2.117.1\ SpaceBeforeRangeBasedForLoopColon\ (\ {\tt Boolean}\ )$



clang-format 7

如果为 false,在基于范围的 for loop

```
for (auto v : values) {}
for(auto v: values) {}
```

# ${\tt 2.118\ SpaceBeforeSquareBrackets}$

### $2.118.1\ SpaceBeforeSquareBrackets\ (\ {\tt Boolean}\ )$

```
clang-format 11

如果为 true, 空格将在 [

true false

int a [5];
int a [5][5];
int a[5][5];
```

# 2.119 SpaceInEmptyBlock

### 2.119.1 SpaceInEmptyBlock (Boolean)



如果为 true,将在 {}

true false
void f() { }
while (true) { }
void f() {}
while (true) {}

### 2.120 SpaceInEmptyParentheses

#### 2.120.1 SpaceInEmptyParentheses (Boolean)



clang-format 3.7

如果为 true,可以在()

```
true false

void f( ) {
    int x[] = {foo( ), bar( )};
    if (true) {
        f( );
    }
}

void f() {
    int x[] = {foo(), bar()};
    if (true) {
        f();
    }
}
```

### 2.121 SpacesBeforeTrailingComments

#### 2.121.1 SpacesBeforeTrailingComments (Unsigned)

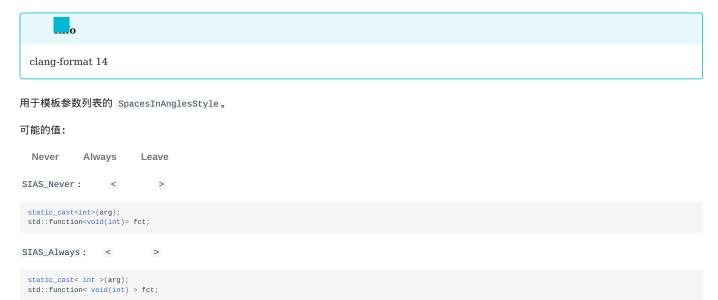
```
clang-format 3.7
```

尾行注释 // - )

这不会影响末尾的块注释 /\* - )

### 2.122 SpacesInAngles

#### 2.122.1 SpacesInAngles (SpacesInAnglesStyle)



Cpp03

最后更新

SIAS\_Leave:

# ${\it 2.123 Spaces In CStyle Cast Parentheses}$

### $2.123.1\ Spaces In CStyle Cast Parentheses\ (\ {\tt Boolean}\ )$



clang-format 3.7

如果为 true,则可以在 C

true false x = ( int32 )y

x = (int32)y

### 2.124 SpacesInConditionalStatement

#### 2.124.1 SpacesInConditionalStatement (Boolean)



clang-format 11

如果为 true,则在 if/for/switch/while

### 2.125 SpacesInContainerLiterals

#### 2.125.1 SpacesInContainerLiterals (Boolean)

```
如果为 true,则在容器字面量 例如ObjC Javascript dict )

true false

var arr = [1, 2, 3];
f({a: 1, b: 2, c: 3});

var arr = [1, 2, 3];
f({a: 1, b: 2, c: 3});
```

### 2.126 SpacesInLineCommentPrefix

#### 2.126.1 SpacesInLineCommentPrefix (SpacesInLineComment)



clang-format 14

一行注释的开头允许有多少个空格。要禁用最大值,请将其设置为 -1 ,但最大值优先于最小值。

```
Minimum = 1 Maximum = -1 //

//

Minimum = 0 Maximum = 0 //
```

请注意,在行注释部分,后续行的相对缩进被保留,这意味着如下:

#### 嵌套的配置标记:

- unsigned Minimum
- unsigned Maximum

# 2.127 SpacesInParentheses

### 2.127.1 SpacesInParentheses (Boolean)



clang-format 3.7

如果为 true,则在前后插入空格。

```
true false

t f( Deleted & ) & = delete;

t f(Deleted &) & = delete;
```

# 2.128 SpacesInSquareBrackets

### 2.128.1 SpacesInSquareBrackets (Boolean)

```
clang-format 3.7

如果为 true, 将在 [ ]

true false

int a[5];

std::unique_ptr<int[]> foo() {} // Won't be affected

int a[5];
```

### 2.129 Standard

#### 2.129.1 Standard (LanguageStandard)



clang-format 3.7

#### 解析和格式化与这个标准兼容的 C++

```
c++03 latest
vector<set<int>> x;
vector<set<int>> x;
```

#### 可能的值:

LS\_Cpp11:

Cpp03	Cpp11	Cpp14	Cpp17	Cpp20	Latest	Auto
IS Cnn03:		C++03 -	Cnn03	c++03		

LS\_Latest: Cpp11

C++11 。

LS\_Auto:

#### 2.130 StatementAttributeLikeMacros

#### 2.130.1 StatementAttributeLikeMacros (List of Strings)



clang-format 12

在语句前面被忽略的宏,就像它们是一个属性一样。这样它们就不会被解析为标识符,例如 Qts emit。

```
AlignConsecutiveDeclarations: true
StatementAttributeLikeMacros: []

unsigned char data = 'x';
emit signal(data); //

AlignConsecutiveDeclarations: true
StatementAttributeLikeMacros: [emit]

unsigned char data = 'x';
emit signal(data); //
```

#### 2.131 StatementMacros

#### $2.131.1 \; Statement Macros (List of Strings)$



clang-format 8

宏的一个向量,应该被解释为完整的语句。

典型的宏是表达式,需要添加分号 有时情况并非如此,这允许clang-format

例如 Q\_UNUSED

### 2.132 TabWidth

### 2.132.1 TabWidth (Unsigned)



clang-format 3.7

用于制表位的列数。

### 2.133 TypenameMacros

#### $2.133.1 \, TypenameMacros (List of Strings)$



clang-format 3.7

宏的一个向量,它应该被解释为类型声明而不是函数调用。

这些应该是以下形式的宏:

STACK\_OF(...)

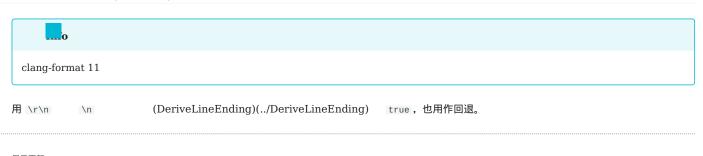
在 .clang-format

TypenameMacros: ['STACK\_OF', 'LIST']

例如 OpenSSL STACK\_OF, BSD LIST\_ENTRY

### 2.134 UseCRLF

### 2.134.1 UseCRLF (Boolean)



### 2.135 UseTab

### 2.135.1 UseTab (UseTabStyle)



clang-format 3.7

#### 在结果文件中使用制表符的方法。

ForIndentation

#### 可能的值:

Never

UT\_Never:

UT\_ForIndentation:

UT\_ForContinuationAndIndentation:

(| )

AlignWithSpaces

Always

ForContinuationAndIndentation

UT\_AlignWithSpaces:

UT\_Always:

### 2.136 WhitespaceSensitiveMacros

### 2.136.1 WhitespaceSensitiveMacros (List of Strings)



clang-format 12

一个宏向量,它是空格敏感的,不应该被触及。

这些应该是以下形式的宏:

STRINGIZE(...)

在 .clang-format

WhitespaceSensitiveMacros: ['STRINGIZE', 'PP\_STRINGIZE']

例如 BOOST\_PP\_STRINGIZE。