

C++ static code analysis: Trigraphs should not be used

1-2 minutes

Trigraphs are denoted by a sequence of 2 question marks followed by a specified third character (e.g. `??-` represents a `'~'` (tilde) character and `??)` represents a `']'`). They can cause accidental confusion with other uses of two question marks.

Noncompliant Code Example

```
static const char str[] = "(Date should be in the  
form ??-??-??)"; // Noncompliant. Evaluates to  
"(Date should be in the form ~~]"
```

Compliant Solution

```
static const char str[] = "(Date should be in the
```

form "?" "-?" "-?" ?)"; // adjacent string literals
concatenated at compile time

static const char str2[] = "(Date should be in the
form ?-?-?)"; // problem avoided by eliminating
2nd '?' in each sequence

static const char str3[] = "(Date should be in the
form ? ?-? ?-? ?)"; // problem avoided by spacing
'?'s out

See

- MISRA C:2004, 4.2 - Trigraphs shall not be used
- MISRA C++:2008, 2-3-1 - Trigraphs shall not be used
- MISRA C:2012, 4.2 - Trigraphs shall not be used
- [CERT, PRE07-C.](#) - Avoid using repeated question marks