

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