

Section 1.1 C++11

Raw String Literals

newline into the source, i.e., making the string literal span lines of source code, is an error. In contrast to conventional string literals, *raw* string literals (1) treat unescaped embedded double quotes (") as literal data, (2) do not interpret special-character escape sequences (e.g., \n, \t), and (3) interpret both vertical and horizontal whitespace characters present in the source file as part of the string contents:

```
const char s1[] = R"(line one
line two
line three)";
// OK
```

In this example, we assume that all trailing whitespace has been stripped since even trailing whitespace in a raw literal would be captured. Note that any literal tab characters are treated the same as a \t and hence can be problematic, especially when developers have inconsistent tab settings; see *Potential Pitfalls — Unexpected indentation* on page 112. Finally, all string literals are concatenated with adjacent ones in the same way the conventional ones are in C++03:

```
const char s2[] = R"(line one)      "\n"
                    "line two"      "\n"
                    R"(   line three)";
// OK, equivalent to "line one\nline two\n   line three"
```

These same rules apply to both raw *wide* string literals and raw *Unicode* ones (see Section 1.1. “Unicode Literals” on page 129) that are introduced by placing their corresponding prefix before the R character:

```
const wchar_t ws [] = LR"(Raw\tWide\tLiteral)";
// represents "Raw\tWide\tLiteral", not "Raw Wide Literal"

const char    u8s[] = u8R("\U0001F378"); // Represents "\U0001F378", not "🍷"
const char16_t us [] = uR("\U0001F378"); //      "      "      "      "
const char32_t Us [] = UR("\U0001F378"); //      "      "      "      "
```

Collisions

Although unlikely, the data to be expressed within a string literal might itself contain the character sequence)" embedded within it:

```
#include <cstdio> // printf

void emitHelloWorld()
{
    printf("printf(\"Hello, World!\")");
    //          ^^
    // The )" character sequence terminates a typical raw string literal.
}
```