

Character Types

This lesson will explain how regex identifies the different types of text in C++.

The type of text determines the character type of the regular expression, the type of search result, and the type of action that will be taken with the search result.

This table shows four different combinations:

| Text type | Regular expression type | Result type | Action type |
|-----------------------------|--------------------------|---------------------------|---------------------------------|
| <code>const char*</code> | <code>std::regex</code> | <code>std::smatch</code> | <code>std::regex_search</code> |
| <code>std::string</code> | <code>std::regex</code> | <code>std::smatch</code> | <code>std::regex_search</code> |
| <code>const wchar_t*</code> | <code>std::wregex</code> | <code>std::wcmatch</code> | <code>std::wregex_search</code> |
| <code>std::wstring</code> | <code>std::wregex</code> | <code>std::wsmatch</code> | <code>std::wregex_search</code> |

Combinations of type of text, regular expression, search result and action

The program shown in the [Search](#) section of this chapter provides the four combinations in detail.

In the next lesson, we'll look at the various types and grammars which C++

In the next lesson, we'll look at the various types and grammars which C++ provides for regex objects.