

# Rendering pseudocode with the listings package

Approx-Error

2nd October 2025

Here is some highlighted pseudocode from a file displayed using the listings package

```
1 // Function output value conventions
2
3 // 1. Designated output arguments, no return value (The old school way)
4
5 function taxicab_dist(int x1, int y1, int x2, int y2, int ptr res) -> void
6     int dist := abs(x1 - y1) + abs(y1 - y2)
7     deref res := dist
8     return
9 end function
10
11 // Calling convention
12 int res
13 taxicab_dist(3, 4, -2, -3, addr res)
14
15 // 2. Returning the output value (A more modern way)
16
17 function taxicab_dist(int x1, int y1, int x2, int y2) -> int
18     int dist := abs(x1 - y1) + abs(y1 - y2)
19     return dist
20 end function
21
22 // Calling convention
23 int res = taxicab_dist(3, 4, -2, -3)
```

The keywords to be highlighted etc. can be defined with the `\lstdefinelanguage{<language>}`-command.