

8. Functions

Stroustrup
ch. 8

8.2 decln & defn

decln = spec (interface)

defn = implement.

int x;
void f(int i) { cout << i; }

extern int x;
void f(int);

pp. 253-298

Kind s: vars, const, fns, namespaces, types, templates

8.5 Fn call & return

by value or by [const] ref

8.5.3 by value

- copy is made.

~~is not~~

- can't update original

8.5.4 by const ref

- addr is passed

- can't update arg

f(a)

a

f(int &x) {
x
}

8.5.5 by ref

- same, but can assign to arg

8.5.6 value vs ref

1. value for register objects
2. const ref for large objects
3. return result, don't update arg
4. by ref only when necessary

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ch. 8 (2)

8.6 order of eval

- easy for optimizer, not prog
- $f(a++, a++) = \text{unpredictable}$

8.6.2 - global init in one file

- use order of defn.

also see Examples/* dirs.

$a[i++] = b[i++]$;

$f(g(x), h(y))$