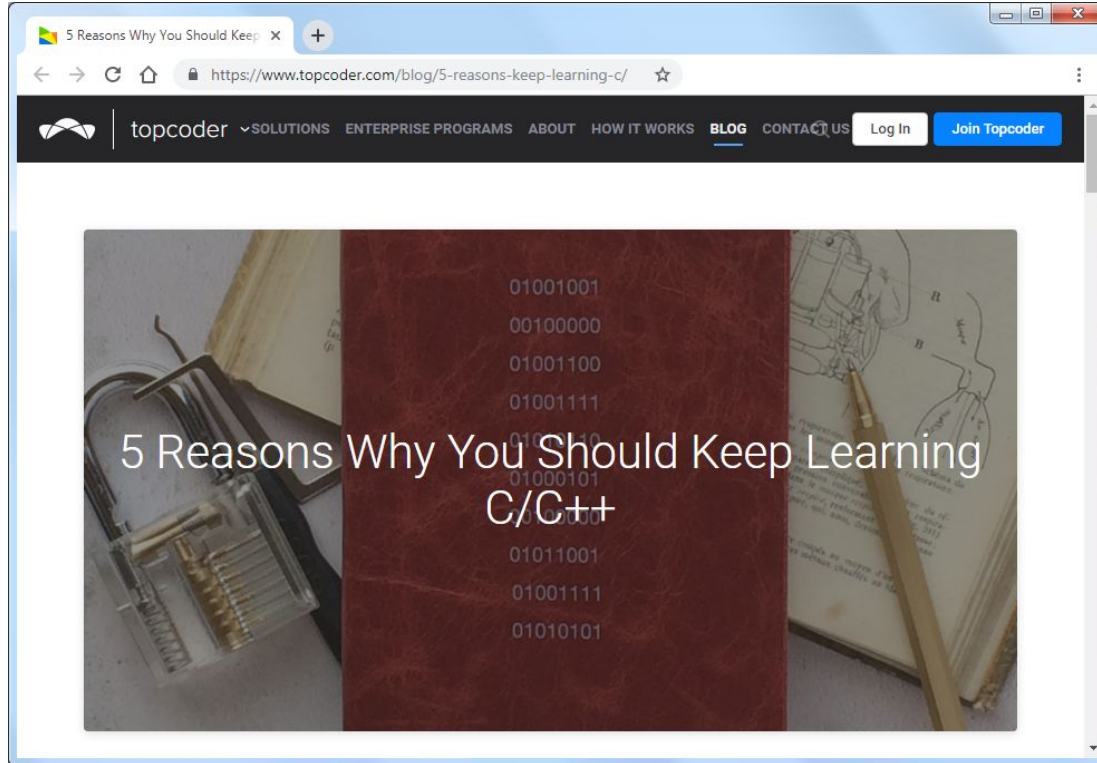


C/C++ is very
similar to
Java/JavaScript

Eran Gilad
Yahoo Research, Haifa::C++



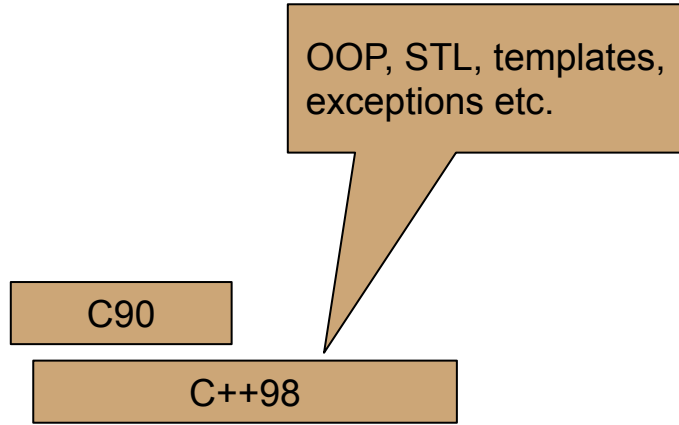
Motivation



A brief history of C/C++

C90

A brief history of C/C++



A brief history of C/C++

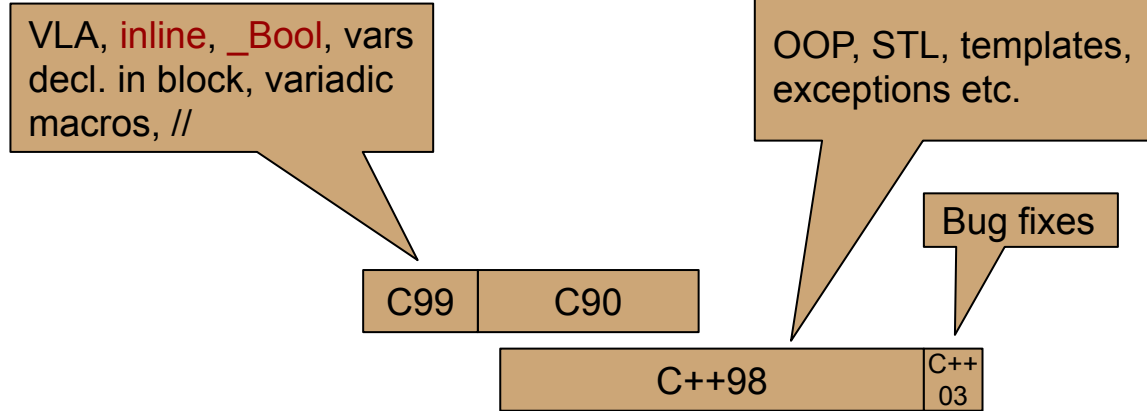
VLA, `inline`, `_Bool`, vars decl. in block, variadic macros, `//`

C99 C90

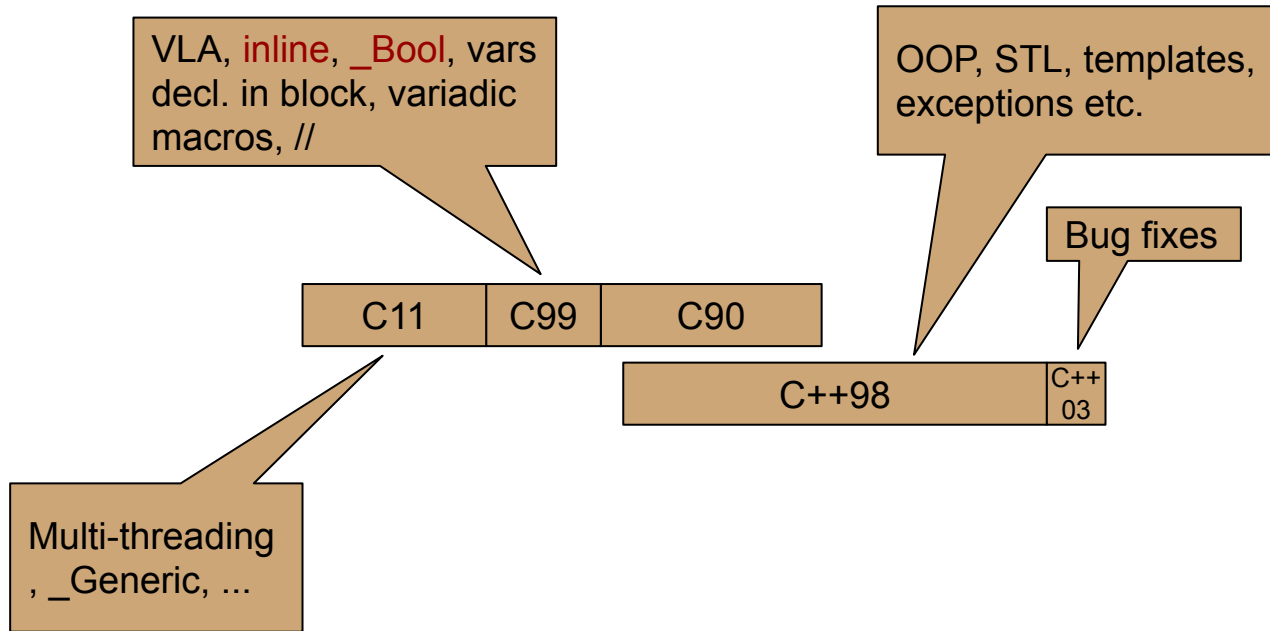
OOP, STL, templates, exceptions etc.

C++98

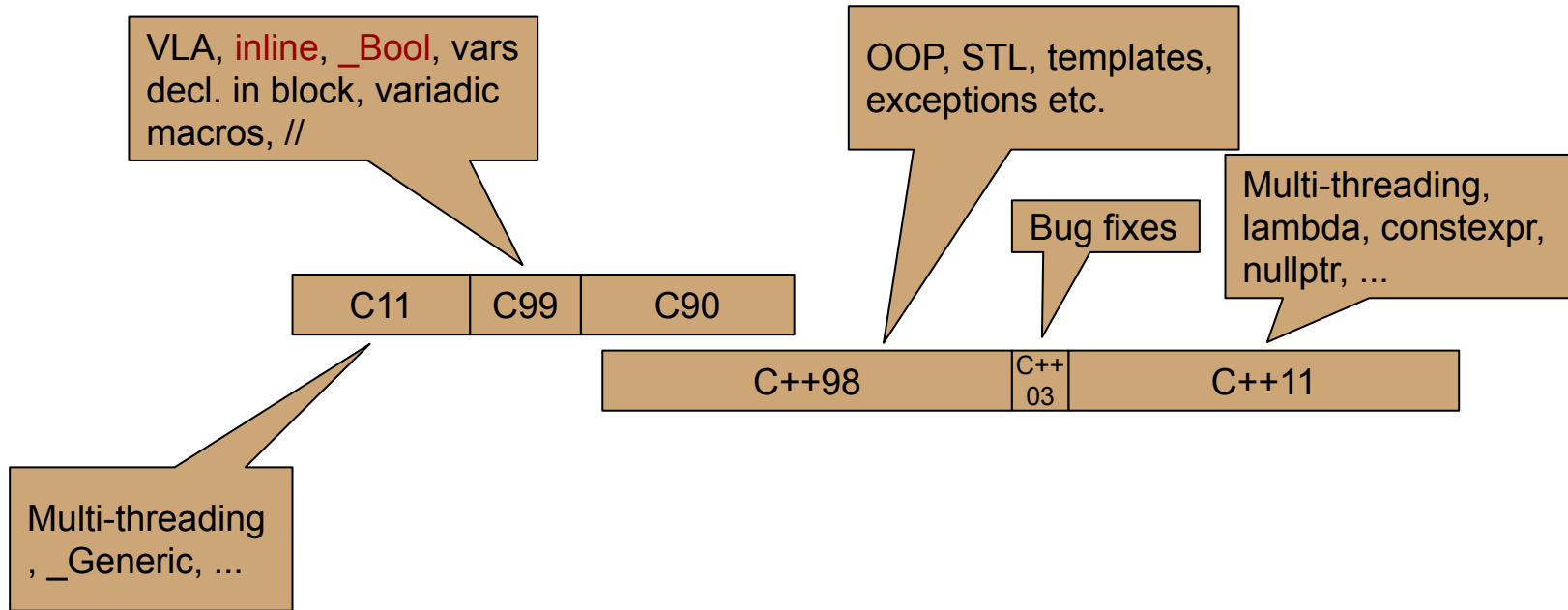
A brief history of C/C++



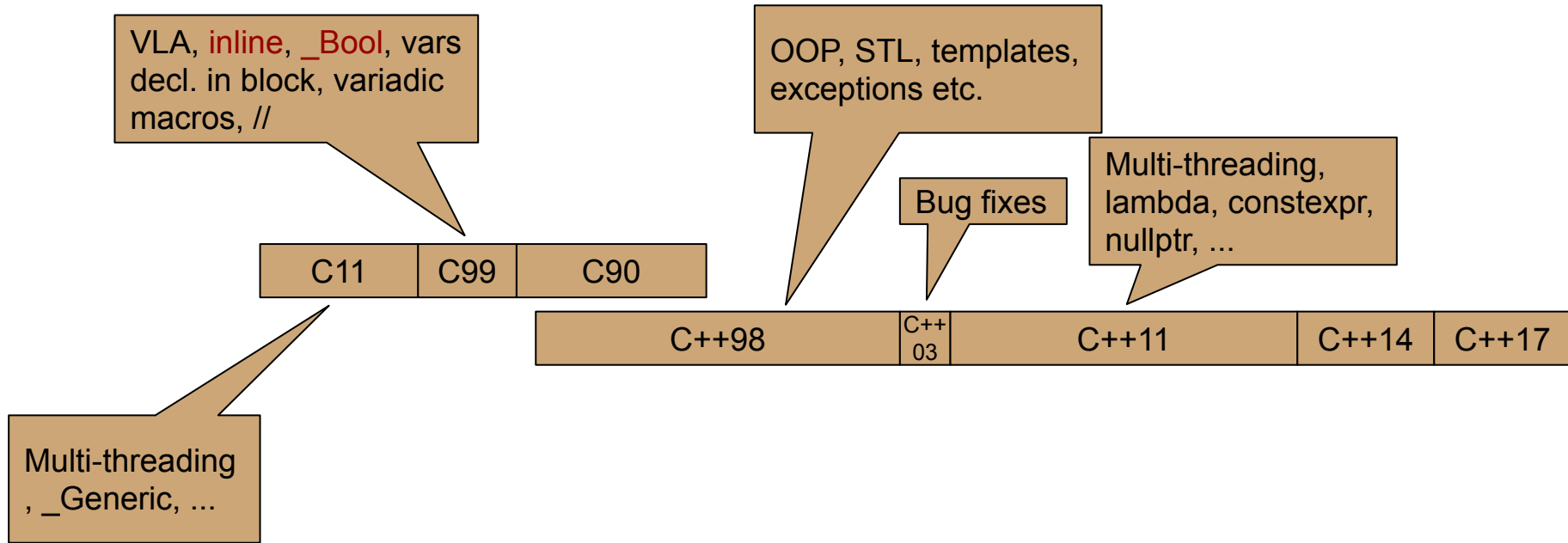
A brief history of C/C++



A brief history of C/C++



A brief history of C/C++



A brief history of C/C++

VLA, `inline`, `_Bool`, vars decl. in block, variadic macros, `//`

Bug fixes

C18 C11 C99 C90

OOP, STL, templates, exceptions etc.

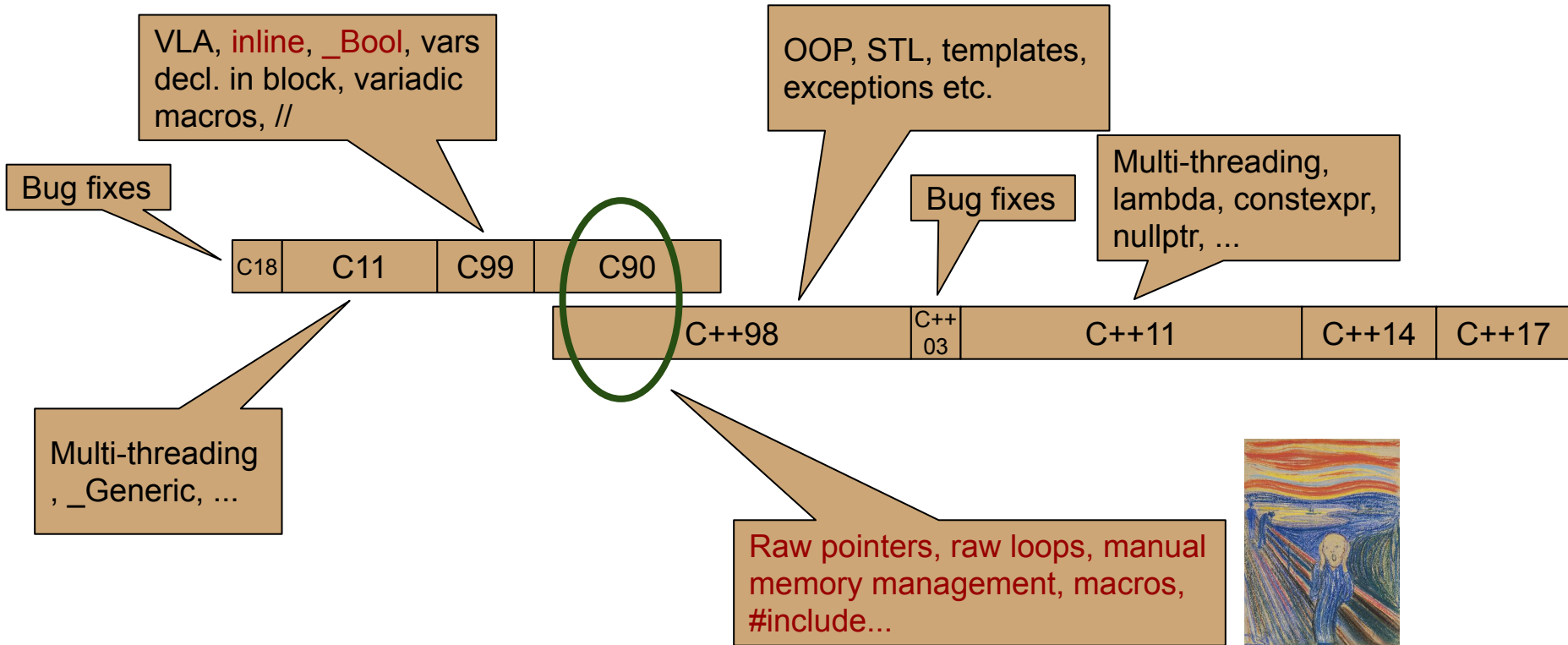
Bug fixes

Multi-threading, lambda, `constexpr`, `nullptr`, ...

Multi-threading, `_Generic`, ...

C++98 C++03 C++11 C++14 C++17

A brief history of C/C++



Going from C++ to C

- Some unfamiliar syntax
- Probably have to learn a lot of in-house libraries
- Less safety features - references, RAII, stronger typing
- Poor man's encapsulation - static is your friend!
- What's wrong with macros?!

Going from C to C++ - Useful (?) Knowledge

- Pointers?
 - Deprecated from C++ on April 1st.
- Manual memory management?
 - Hell no! We use smart pointers, containers and RAII.
- Atomics for parallelism?
 - Only if we must. Tasks and parallel algorithms are preferable.
- Fine control of memory layout?
 - Sure. But we have more tools - alignas, variant etc.

Going from C to C++ - Missing Knowledge

- OOP
- Templates
- Standard Library
- Lambdas
- Move semantics
- constexpr
- Concepts, coroutines, modules, contracts...

Call for action - no more C/C++ silliness!

- A C programmer doesn't know more C++ than a Java programmer
- Can a C programmer become a C++ pro? Of course! But not immediately.
 - Same goes for the other way
- Spot a "C/C++"? Call out that silliness!
 - It's neither doing just to C nor to C++
- Oh - Java and JavaScript are very unrelated
 - Mostly legacy branding and {}
 - Like C and C++

Course categories:

C/C++

C / C++

A general-purpose, high-level programming language multi-paradigm language supporting procedural prog generic programming and RTTI.

Technical Lead – Java, Python, C/C++, Go, Scala, Apache Open Source Stacks, Big Data – Ad Tech, Mobile Carrier Data Full Time

חברת השמה < דרושים הייטק > תוכנה

משרות ראש צוות C/C++

עמוד ראשי > שחזור ראינות עבודה

ראיון עבודה בחברת --- לפיתוח ב-C/C++

C/C++ IoT

מסמכים אילנו < מנסות פיתוח C/C++

הנדסת/ פיתוח C/C++

There is no language called "C/C++". The phrase is usually used by people who don't have a clue about programming (e.g. HR personnel and poor managers).

Bjarne Stroustrup
www.stroustrup.com/bs_faq.html#C-slash

Software Engineer (C/C++, ...)

--- • Tel Aviv, IL

Software Engineer - C/C++, Linux

Austin, TX

Full-time

Qualifications

- Extensive knowledge of C/C++ development using GNU using libraries such as Boost, OpenSSL, Curl



Introduction to C/C++

מבוא למדעי המחשב בשפת C/C++

Senior developer C/C++

Your profile:

- Strong C/C++ knowledge