

Systemové programování Windows

Kam dál?

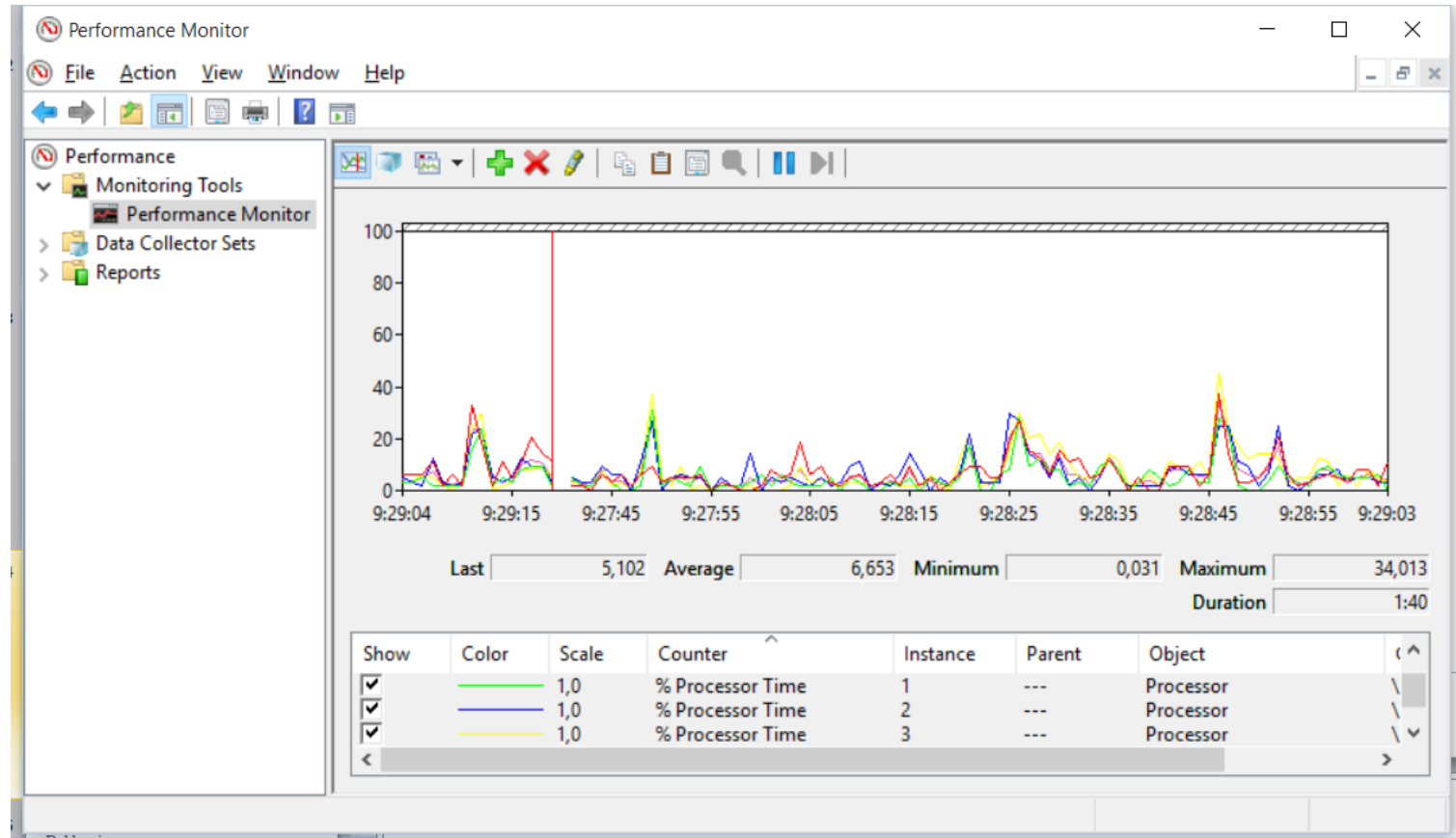
Obsah

- ▶ WiX – Windows Installer XML
- ▶ Debugging
- ▶ COM
- ▶ Kryptografie
- ▶ Windows management
- ▶ 32/64b
- ▶ Ovladače
- ▶ WinRT
- ▶ Používá se C++ v praxi?



Performance Counters

▶ Perfmon.exe



WiX – Window Installer XML

- ▶ Tvorba .msi balíčků
 - ▶ Přidat odebrat/programy
 - ▶ Rollback
 - ▶ Bezobslužná instalace
 - ▶ Upgrade



Debugging

- ▶ Remote debugging
 - ▶ VMWare
- ▶ Memory dump
 - ▶ WinDbg
- ▶ DebugView



COM

- ▶ COM
 - ▶ DCOM
- ▶ Side-by-side (WinSxS) (SxS)



Kryptografie

- ▶ **Crypto API**
 - ▶ DPAPI - Data Protection API
 - ▶ CryptProtectData/CryptUnprotectData
- ▶ **Cryptography API: Next Generation (CNG)**
 - ▶ BCrypt/NCrypt



Windows management

- ▶ Tvorba oken
- ▶ Správa oken
- ▶ Událostmi řízená aplikace



32/64b

- ▶ Wow64 (**W**indows 32-bit on **W**indows **64**-bit)
 - ▶ Registry
 - ▶ Filesystem

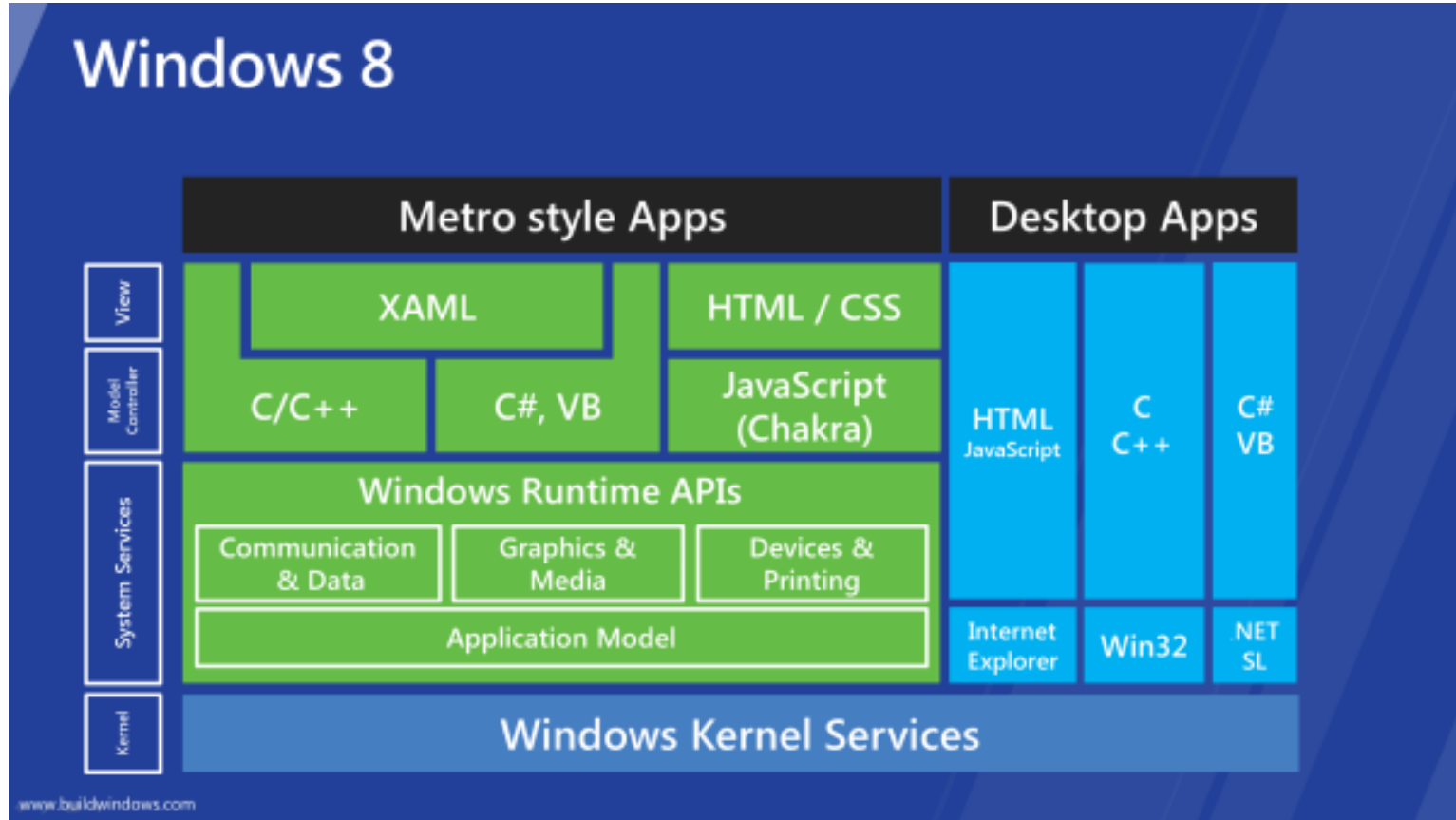


Ovladače

- ▶ User mode vs. Kernel mode
- ▶ DDK/WDK



WinRT



Využití C++

- ▶ Microsoft Windows:
 - ▶ ASM, C >> C++

- ▶ Microsoft Office
 - ▶ ASM >> C >> C++

- ▶ Microsoft Visual Studio:
 - ▶ C++, C#

Zdroj: The Programming Languages Beacon

<http://www.lextrait.com/vincent/implementations.html>



Review

- ▶ Která část kurzu byla nejzajímavější?
- ▶ Návrhy na zlepšení kurzu?



Díky za pozornost

