



# Windows Internals for IT (5th edition)

Cursusduur: 3 Dagen Cursuscode: M50155

## **Beschrijving:**

This 3-day instructor-led course provides students with the knowledge and skills to debug and troubleshoot low-level Windows applications. The course provides a detailed view of the Windows operating system architecture, its key components, undocumented interfaces and core interactions through the use of debugging utilities, inspection tools and exercises.

## Doelgroep:

This course is intended for escalation and support engineers with substantial experience administering and troubleshooting applications and systems on Windows.

## Vereiste kennis en vaardigheden:

Before attending this course, students must have: Familiarity with the Windows operating system on a power-user level. Familiarity with operating systems concepts (multiprocessing, thread scheduling, virtual memory) is preferable but not a must.

## Cursusinhoud:

### Module 1 Concepts and tools

- Architecture
- OS versions
- Program
- Process
- Thread Objects
- Virtual memory
- Kernel mode / user mode
- Programming
- Interface
- Tools

#### Module 2 Architecture

- Multiprocessing
- System Core files
- System diagram
- Windows Subsystem
- The Kernel
- Device Drivers
- Major System Processes
- Service Control Manager
- Services
- Service accounts
- Trap Dispatching

#### Module 3 The registry and Performance

- Registry
- Investigating Processes
- Performance

## Module 4 WMI

- WMI Overview
- WMI Architecture
- WMI Namespace Common Information Model
- WMI Administrative tools
- WMI CIM Studio
- WMI Security
- Windows Diagnostic Infrastructure
- .NET framework

### Module 5 Storage

- Storage
- Disk Types
- File Systems

## Module 6 Networking

- Networking architecture
- Networking components
- WinSock Operation
- Remote Procedure Call
- Web Access
- APIs
- Name Resolution

### Module 7 Startup

- Windows Preboot
- Windows Boot Process
- Winlogon
- Troubleshooting

Module 8 64-bit Systems

- Why Go 64-bit
- X64 Overview
- New x64 APIs
- WoW64
- WoW64 Architecture
- WoW64 Extra

Nadere informatie:

Neem voor nadere informatie of boekingen contact op met onze Customer Service Desk 030 - 60 89 444

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- Windows Sockets