# Microsoft Macro Assembler x86 MASM Programmierung

#### Dauer: 4 Tage

#### Kursbeschreibung

The Microsoft Macro Assembler 8.0 (MASM) is a tool that consumes x86 assembly language programs and generates corresponding binaries. Assembly language programs built with MASM can be edited and debugged using Visual C++ 2005 Express Edition. This installation requires the Visual C++ 2005 Express Edition to be installed on the computer.

This download is for non-commercial use only, see the EULA during installation for more details.

#### **Themenschwerpunkte**

- Microsoft Macro Assembler (MASM) Overview
  - o Installing and Using MASM
- Organizing Segments
  - Memory Segments; Segment Directives
  - Memory Model
    - Small, Medium, Compact, Large, Flat and Huge Models
- Programming Overview
  - Defining and Using Simple Data Types, Data Initialization, Constants, Statements,
    Working with Simple Variables, Moving Data
  - o Addition, Subtraction, Multiplication and Division
  - Logical Instructions
  - Shifting and Rotating Bits
  - Operands
    - Register Operands, Direct Memory Operands, Indirect Memory Operands
- Complex Data Types
  - o Arrays, Strings, Records, Structures, and Unions
- Controlling Program Flow
  - Jumps, Loops, Procedures
- Sharing Data and Procedures Among Modules and Libraries
  - Organizing Modules
  - o PUBLIC and EXTERN
- Mixed-Language Programming
  - Naming and Calling Conventions
    - The C Calling Convention
- Using Macros
  - Text Macros
  - Creating Macro Procedures
  - Passing Arguments to Macros
- Topical Cross-Reference for:
  - o Processor Instructions, Symbols and Directives
- Glossary

## Voraussetzungen

Programmier-Kenntnisse.

## Zielgruppe

Systemnahe Programmierung

### **Begleitendes Kursmaterial**

Kursordner (englisch)