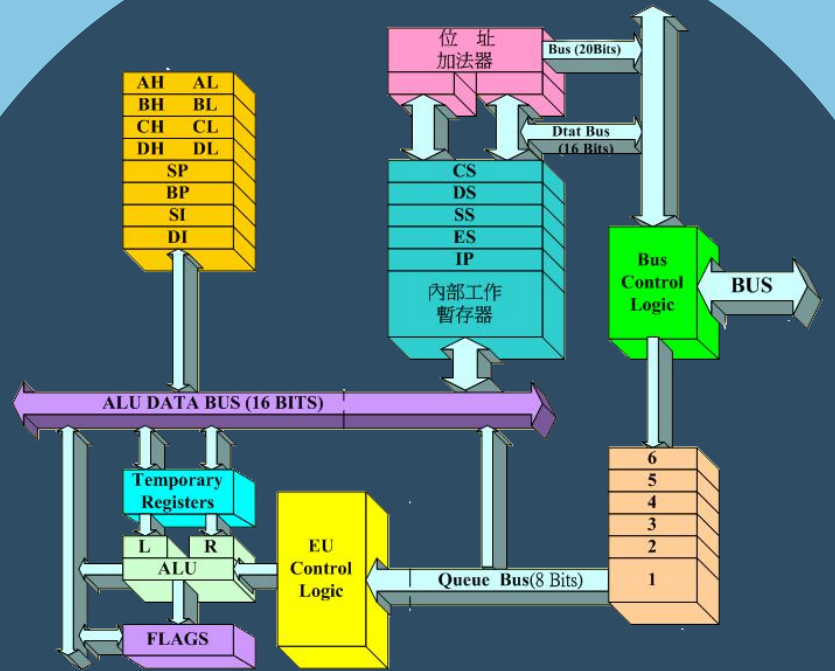


汇编语言集成开发环境

贺利坚 主讲



汇编语言程序设计

Assembly Language

一些与汇编有关的软件环境

DOS环境

 MS-DOS

Windows环境支持的8086实模式工作环境

 MS-DOS方式

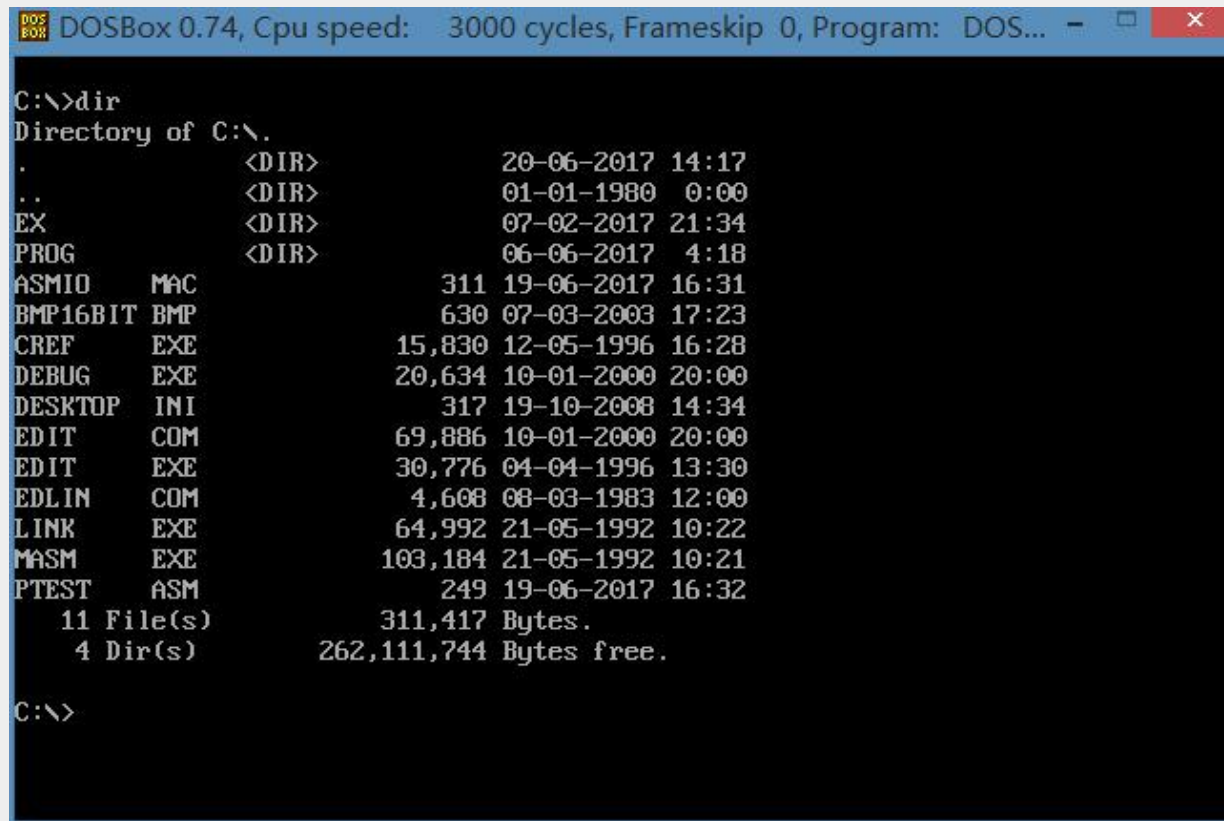
 DOSBox

 emu8086

Windows下的汇编工具

 masm32

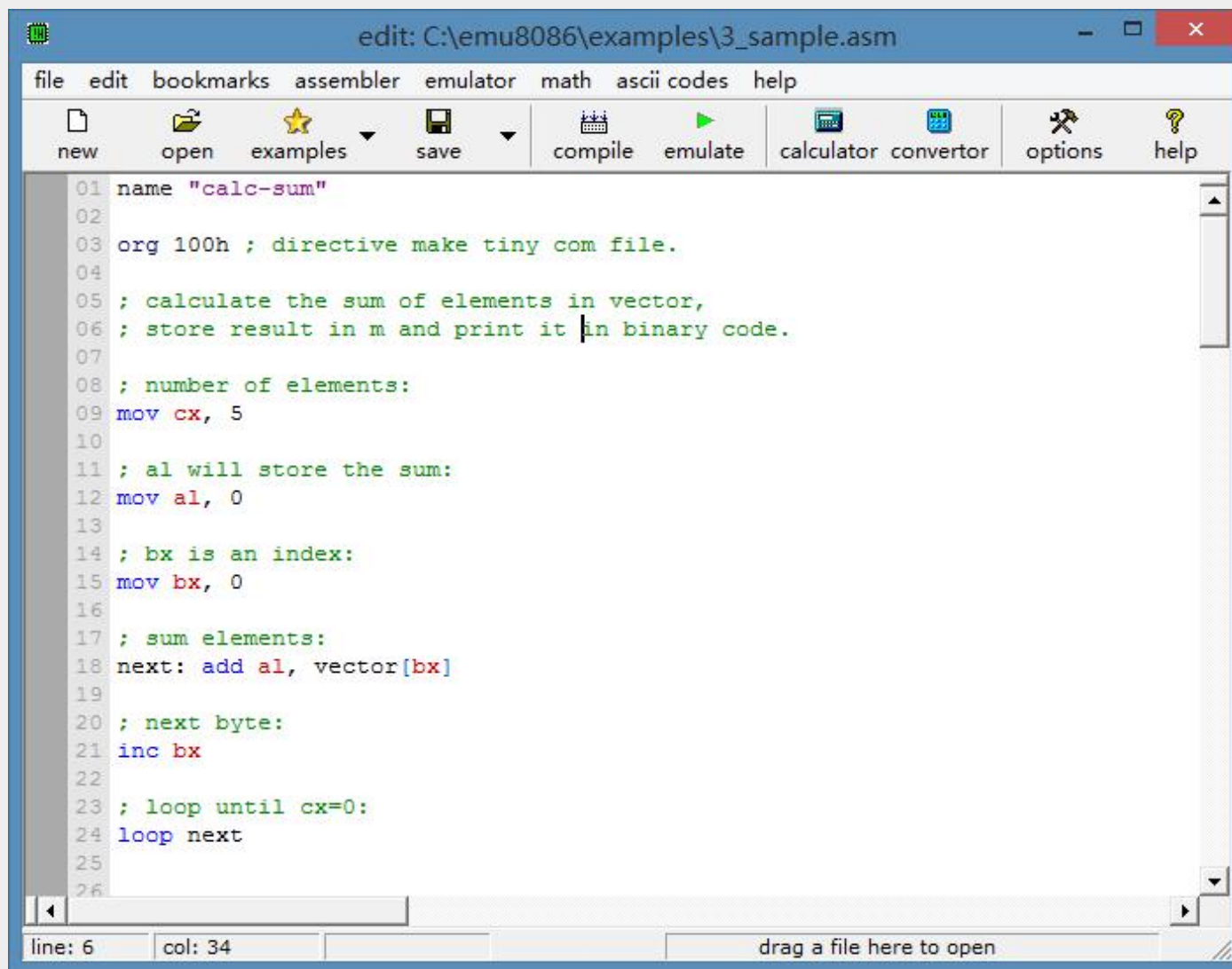
 visual studio系列



```
DOSBox 0.74, Cpu speed: 3000 cycles, Frameskip 0, Program: DOS...  
C:\>dir  
Directory of C:\.  
.                <DIR>                20-06-2017  14:17  
..               <DIR>                01-01-1980   0:00  
EX               <DIR>                07-02-2017  21:34  
PROG            <DIR>                06-06-2017   4:18  
ASMIO   MAC          311 19-06-2017  16:31  
BMP16BIT BMP         630 07-03-2003  17:23  
CREF     EXE       15,830 12-05-1996  16:28  
DEBUG    EXE       20,634 10-01-2000  20:00  
DESKTOP  INI         317 19-10-2008  14:34  
EDIT     COM       69,886 10-01-2000  20:00  
EDIT     EXE       30,776 04-04-1996  13:30  
EDLIN    COM         4,608 08-03-1983  12:00  
LINK     EXE       64,992 21-05-1992  10:22  
MASM     EXE      103,184 21-05-1992  10:21  
PTEST    ASM         249 19-06-2017  16:32  
11 File(s)          311,417 Bytes.  
4 Dir(s)           262,111,744 Bytes free.  
C:\>
```

emu8086

EMU8086集编辑器、汇编器、调试器于一身，提供了一个8086CPU的模拟器，用窗口形式，提供了对8086汇编的支持，此外，还提供了循序渐进的教程和大量的示例。



The screenshot displays the EMU8086 software interface, specifically the assembly code editor window. The window title is "edit: C:\emu8086\examples\3_sample.asm". The menu bar includes "file", "edit", "bookmarks", "assembler", "emulator", "math", "ascii codes", and "help". The toolbar contains icons for "new", "open", "examples", "save", "compile", "emulate", "calculator", "convertor", "options", and "help". The main text area shows assembly code for a program named "calc-sum". The code includes comments and instructions for calculating the sum of elements in a vector. The status bar at the bottom indicates "line: 6" and "col: 34", and there is a prompt "drag a file here to open".

```
01 name "calc-sum"
02
03 org 100h ; directive make tiny com file.
04
05 ; calculate the sum of elements in vector,
06 ; store result in m and print it in binary code.
07
08 ; number of elements:
09 mov cx, 5
10
11 ; al will store the sum:
12 mov al, 0
13
14 ; bx is an index:
15 mov bx, 0
16
17 ; sum elements:
18 next: add al, vector[bx]
19
20 ; next byte:
21 inc bx
22
23 ; loop until cx=0:
24 loop next
25
26
```

masm32

MASM32是一个由个人开发的包含了不同版本工具组建的汇编开发工具包。

MASM32的汇编编译器是

MASM6.0以上版本中的Ml.exe ,

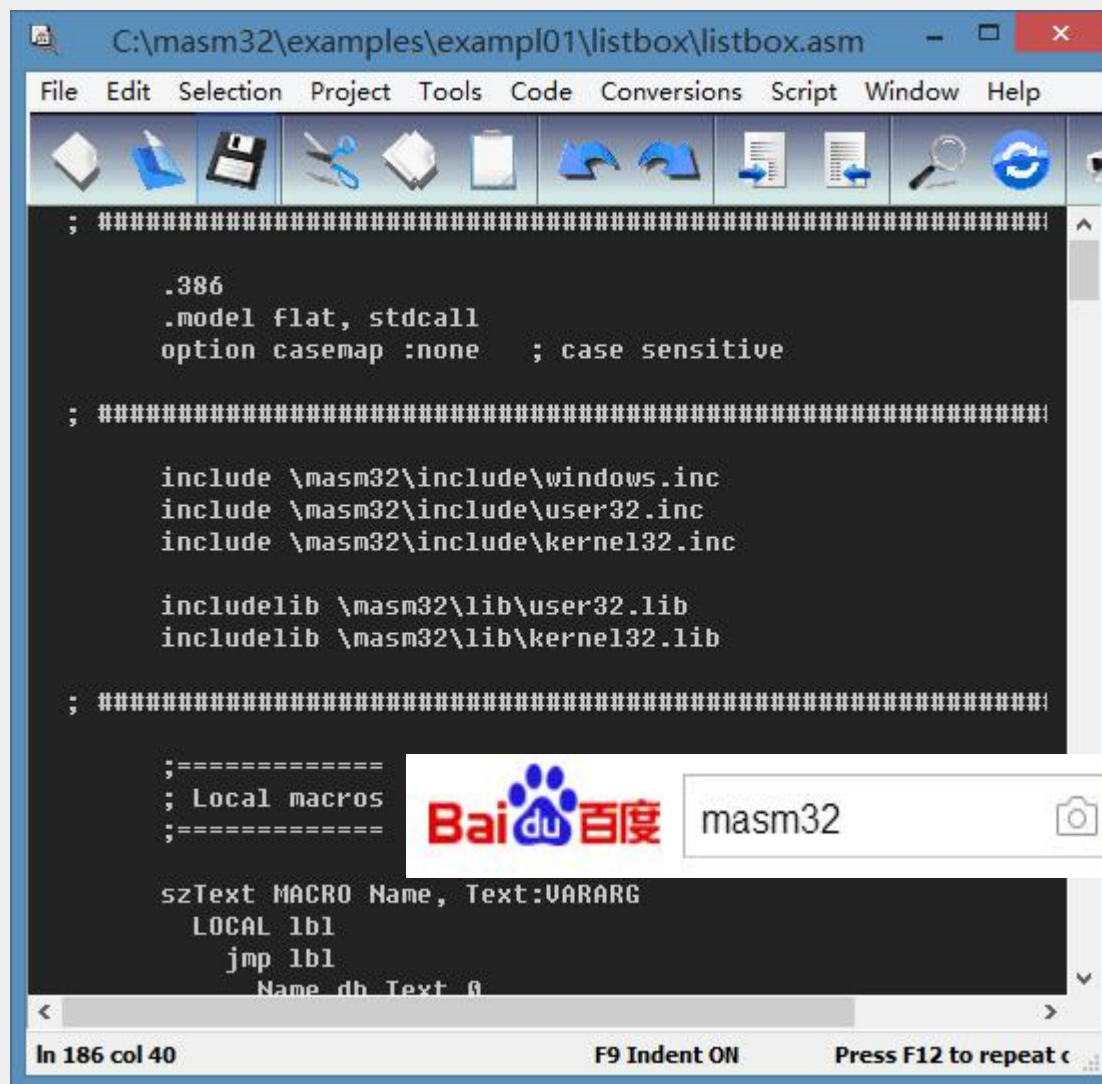
资源编译器是Microsoft Visual

Studio中的Rc.exe , 32位链接器是

Microsoft Visual Studio中的

Link.exe , 同时包含有其他的一些

如Lib.exe和DumpPe.exe等工具。



The screenshot shows the MASM32 IDE with the file `C:\masm32\examples\example01\listbox\listbox.asm` open. The code is for a 386 assembly program that includes Windows and kernel headers and libraries. A Baidu search bar is overlaid on the code, showing the search term "masm32".

```
; #####  
  
.386  
.model flat, stdcall  
option casemap :none ; case sensitive  
  
; #####  
  
include \masm32\include\windows.inc  
include \masm32\include\user32.inc  
include \masm32\include\kernel32.inc  
  
includelib \masm32\lib\user32.lib  
includelib \masm32\lib\kernel32.lib  
  
; #####  
  
;=====  
; Local macros  
;=====  
  
szText MACRO Name, Text:VARARG  
    LOCAL lbl  
    jmp lbl  
    Name db Text, 0  
ENDM
```

Search results for "masm32" on Baidu:

- masm32