

The Web Site to Remember National Semiconductor's Series 32000 Family

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Definicon

The Definicon DSI-32 and also Richard's coprocessor card have no ROM or EPROM on-board. All software must be loaded by the host system into the main memory of the coprocessor board. Because of the age of the Definicon system the host software is written for MS-DOS. Definicon defined a text mode and two graphic modes using EGA. The graphic modes work in the way that a block of memory is copied by the host from the coprocessor memory into the video memory of the host. Preferable this is done via DMA.

Sadly the test session of Richard and myself in September 2015 showed that the graphic modes did not work under Windows 95. Either the software does not support EGA emulation or the hardware of the graphic card is not able to display EGA modes. The later may be true since working under MS-DOS only doesn't change the behavior of the host PC.

Looking for an old graphic card is not an option in 2015. If anybody in central Europe has still a functional PC-AT he or she should sent me a note.

Richard is in the meantime looking for a different solution. Rewriting the host software is not an easy task but doable since the source code of the LOAD program is available. The main challenge will be to write a device driver for Windows XP. But this is quite interesting and the outlook to see the Definicon board in the hardware manager of XP is exciting.

During the test session in September 2015 I tried to write something like "Hello World" in assembler because we have not the compilers. The assembler worked fine but the linker does not produce the desired output. There was not much time available to debug the problem and at the end we still don't know how to write a running program on a Definicon coprocessor. But I'm sure that this problem can be solved with massive trial-and-error.

Maybe it is easier to look at the web and at least I found some documentation: [docs.zip](#). I converted the document about the linker to a pdf file: [LN User Manual](#).

I put all of our available original software for the host PC and the coprocessor board online. It can be downloaded as a ZIP file of 1.2 Mbytes. Please note that a *.DOC file is not a Microsoft Word file but a simple text file.

[Definicon Software](#)

This chapter was last modified on 20 August 2017. Next chapter: [Emulator](#)