



# VisualProbe® Remote Debugger

## Product Overview

### About VisualProbe Remote Debugger

VisualProbe Remote Debugger is a Windows-hosted source-level and symbolic debugger for real-mode and protected-mode 386/386EX/486/Pentium embedded C applications.

In contrast to our VP Simulator product, our VisualProbe Remote Debugger downloads your code from a Windows host to the actual 386/386EX/486/Pentium target system for debugging. A Target Monitor program resides on the target system that controls program execution and communicates with the host system through a RS-232 serial port.

VisualProbe Remote Debugger includes a reconfigurable Target Monitor that requires Link&Locate® 386 and an assembler for the build process. Also included with this product are a number of pre-configured Target Monitors for use with popular evaluation boards.

### Input File Formats

- Borland C/C++ v4.00, 4.50, 5.00.
- Intel OMF-86 files.
- Intel OMF-286 files.
- Intel OMF-386 bootloadable files.
- MetaWare High C/C++ v3.20, 3.30, 3.31, 3.60 and v3.60 for CV3 and CV4.
- Microsoft Visual C/C++ v2.0, 4.0, 4.1, 4.2, 5.0, 6.0.
- Watcom C/C++ 32 v10.0, 10.5, 10.6, & 11.
- Binary files.
- Command and macro files.

### Output File Formats

- Log and list files.
- Binary image files.
- SPF output for Metaware CV3, CV4; Borland CV4; and Microsoft CV5.

### Key Features:

- Supports 16-bit and 32-bit protected-mode in both flat and multi-segmented protected mode memory models.
- Support 16-bit real mode application development and virtual 8086-mode application development.
- Support for a math coprocessor (FPU) in the target system.
- Supports multiple privilege levels for RTOS multi-tasking protected mode applications.
- Source level debugging in source code, disassembly, or a mixed mode of source code and disassembly.
- Complete access to C, and assembly symbolic names, data types, functions, source statements and source modules. C++ source level debugging is supported; C++ expression and mangled-names are not supported.
- C-like expression evaluation can be used to examine and modify program objects.

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## More Features:

- *Complex breakpoints/trigger points include execution breakpoints and data watchpoints, passcount, conditional breakpoints, and command actions attached to breakpoints. The Target Monitor uses debug registers allowing breakpoints on read & write data accesses, and execution breakpoint in ROM.*
- *Command window is used for backward compatibility with DOS-hosted Soft-Probe 386/TX.*

## Host & Tool Requirements

- Windows NT is recommended; Windows 95/98 supported.
- 300 MHz Pentium PC with a minimum of 8 Mbytes of RAM.
- A dedicated RS-232 serial port with a 16550 UART for high speed communication up to 115200 baud.
- Link&Locate 386 and an assembler are required to build the reconfigurable Target Monitor.

## Target Processors Supported and Requirements

- Intel 386SX/DX/EX/CX, 486SX/DX, and Pentium.
- AMD 386SE/DE, Élan SC300, SC310, and SC400, and 486SE/DE.
- National Semiconductor NS486SXF.
- Other Clone 386, 486, and Pentium processors.

## Product Compatibility / Linker/Locators

- Link&Locate 386
- Link&Locate 86
- C7toPROM
- C++toPROM

## Utilities Included

- COMM.EXE - Host side of communication test program.
- RUN.EXE - Used with the auto-start monitor to start program execution without starting the host debugger.
- VP.EXE - Host side of user interface program for VisualProbe Remote Debugger.
- STOP.EXE - Used with the auto-start monitor to stop program execution without starting the host debugger.
- TX386.EXE - DOS executable file for loading a Target Monitor on a PC.

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