



# NetWare Debugger: Set Up & Use

Alexander Support Document

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**TASK:** *How to set up your PC to use the Novell NetWare VDB debugger to analyze a core dump and basic commands to use*

Resolving NetWare Abends using the core dump has never seemed a simple task...partly because most people are never shown how to use it and it is not that bad! Well, at least for about 1/2 the abends you come across. This document will show you how to take a core dump, open it in VDB (The Novell Virtual Debugger), and execute commands that will show the state of the system when it crashed.

## Post mortem debugging versus online debugging

Note that this is after-the-fact, or "post mortem" debugging. In contrast, if you enter the online debugger on a running NetWare server, you are freezing operations for the entire time that you are in the debugger. By opening a core dump file on your desktop after the server has been recovered you avoid interrupting the office network and you avoid annoying other people (which is a very good thing.)

## System Requirements

### OS Versions

NetWare 6.x — 3.x

### Debugger Versions

Note: use the right debugger version for each OS version!

### Space Required

#### Debugger

The VDB is small enough to not worry about space. It is only about 300k.

#### Core Dump Files

Core dump files are another matter. A full core dump is equal to the amount of RAM in the system Assuming the it was created without cache, it will be much smaller. Perhaps 1/3 of RAM but this can vary a lot.

## Download VDB

<http://developer.novell.com/ndk/unsupported.htm>

## Setup

Just put the version of VDB that you will use in a directory with the core dump and run it. That's it!

## Making and Moving Core Dumps

If you would like information on making core dumps and moving them off the server, refer to Alexander Support Document on NetWare Core dumps or contact Alexander LAN, Inc.

## Starting VDB

Simply double click on vdb.exe and type in the name of the core dump you want to open. It will open the file and, assuming it is the first time that you open that file, it will create some additional files. This may take a moment. Then it will do some basic analysis. Following that, try the commands listed below to see some of what it will provide. Remember: if you are working with a core dump and not on a live system, you can take your time and also not worry about hurting anything, so explore.

## Help Commands

There are several help commands. Both the "h" and the ".h" are the ones you will make most use of.

HELP COMMAND / DESCRIPTION	
<b>h</b>	Show Help screen
<b>.h</b>	Shot DOT help screen
<b>he</b>	Show EXPRESSION help screen
<b>hl</b>	Show LOG FILE help screen
<b>hs</b>	Show SYMBOL help screen

## Diagnostic Commands

While there are a lot of commands available in VDB, there are 10 most likely to be used for basic abend analysis.

Generally speaking, scan through the information returned from these commands. Beginning with "?" which tells you where the system was when it abended. Note in particular whether a 3rd party module was included. This is very important. While it does not guarantee that he is guilty, it is very likely so (NetWare, like all OSs is seldom the actual culprit.)

DIAGNOSTIC COMMAND / DESCRIPTION	
<b>.a</b>	Display the abend or break reason
<b>?</b>	Display the current location Also: ? [address/register/symbol] will display information specific to what was included
<b>.m</b>	Display all loaded module names and addresses Also: .m [module name] will return information for that specific module
<b>.p</b>	Display all process names and addresses. Also: .p [address] will display as a control block
<b>.r</b>	Display the running process control block
<b>.s</b>	Display all screen names and addresses
<b>v</b>	Display screen shots at fault time
<b>.v</b>	Display server, VDB, and image file information
<b>r</b>	Display registers and flags
<b>sw</b>	Display stack walk for active process

## For additional information

Alexander LAN, Inc.

100 Perimeter Road  
Nashua, New Hampshire 03063 USA

Tel: (603) 880-8800

Fax: (603) 880-8881

www.alexander.com

support@alexander.com