
Subject: PV-WAVE FAQ (1 of 2)
Posted by [mgs](#) on Mon, 26 Feb 1996 08:00:00 GMT
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Following is part 1 of the updated version of the PV-WAVE FAQ. Please send info about corrections, requests, etc., to mgs@visdata.com.

PV-WAVE FAQ

Frequently Asked Questions about the PV-WAVE programming language.

Archive-name: pvwave_faq.html
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Latest PV-WAVE FAQ: See Appendix A02.
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schienle@igate1.hac.com (Hughes Santa Barbara Remote Sensing - alternate)

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Introduction

This is a list of Frequently Asked Questions about the PV-WAVE programming language by Visual Numerics, Inc. These questions pop up fairly regularly in the newsgroup [comp.lang.idl-pvwave](#). This list is an attempt to cut down on net traffic regarding commonly asked questions. Users are encouraged to read through this list before posting a query to the newsgroup. A similar FAQ geared for IDL users is also available. The PV-WAVE FAQ has been copied from the IDL FAQ due to various reasons (PV-WAVE FAQ maintainer's past association with IDL FAQ, similarity between languages, shared newsgroup, etc.). The fact that the PV-WAVE FAQ was copied from the IDL FAQ is the reason for the gaps in the numerical sequences of some of the questions. Information for obtaining the IDL FAQ is in Appendix 2. Many responses have been copied verbatim from the newsgroup, and some effort will be made to keep the two FAQ's similar. These responses may have been written from an

IDL or PV-WAVE perspective, and contain references to the respective languages. In general these references have been untouched if they work correctly with either language.

A Note from the editor about IDL:

I am currently programming in both IDL and PV-WAVE for multiple projects. As such, I will try to minimize comments which appear to favor one package or the other. On occasions where a procedure, function or feature is present in one package and not the other, I will try to provide or request concise descriptions of the differences between the two packages.

General questions

- * G01. What is PV-WAVE?
- * G02. Where can I contact VNI about PV-WAVE?
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- * G17. Can I get support electronically?
- * G18. How can I find if a routine to do what I want already exists?

Technical questions

- * T01. Why doesn't polycontour fill open contours?
- * T05. Is there on-line help for PV-WAVE?
- * T06. I run PV-WAVE under X in SunOS 4.x, and after I logout, the screen becomes completely blank. Typing in login names and passwords blindly logs you in again with the correct colors. How to prevent this?
- * T07. Sometimes my variables seem to disappear. Why is this?
- * T08. Is there a major mode for editing PV-WAVE code in Emacs?

- * T11. Where are all the PV-WAVE routines and userlib procedures?
- * T12. Does anybody know how to put multiple image plots on one page in PostScript?
- * T13. Does case matter in PV-WAVE?
- * T14. How do I set up PV-WAVE to get precise control over plot window and text positioning with either portrait or landscape page orientation on a PostScript or HP-GL printer?
- * T15. I get the error message "Code Area Full". What do I do?
- * T16. Sometimes I get the following error message: %Unable to allocate memory: to make array. not enough core
- * T17. How can I set the cursor to a crosshair on my display?
- * T18. How can I vectorize an equation of two different arrays?
- * T19. How can I get PV-WAVE to work with MacX
- * T20. How can I determine if a variable is defined?
- * T21. Why should KEYWORD_SET not be used to check if a variable is defined?
- * T22. What is the undocumented routine TVRDC?
- * T27. Why is memory not released back to the operating system after an array is deleted?

User Interface (GUI) questions

- * TBD

Appendices

- * Appendix 1: Disclaimer
- * Appendix 2: Obtaining the latest PV-WAVE (and IDL) FAQ
- * Appendix 3: Acknowledgements
- * Appendix 4: Previous Changes

GENERAL QUESTIONS:

G01. What is PV-WAVE?

PV-WAVE is a visual data analysis product of Visual Numerics, Inc. (VNI) It's roots go back to the late 1970's, but was initially released in 1988.

The following is quoted from Visual Numeric's home page. As such, it describes PV-WAVE's capabilities in an understandably subjective manner.

PV-WAVE is a software environment for solving problems requiring the application of graphics, mathematics, numerics and statistics to data and equations.

PV-WAVE is designed to solve problems fast, enabling you to:

1. quickly turn data into intuitive images
2. produce data analysis tools to fit your needs
3. increase the quality of your analysis

thereby giving you a strong competitive edge and increasing your productivity.

PV-WAVE uses an intuitive fourth generation language (4GL) that analyzes and displays data as you enter commands. With it you can perform complex analysis, visualization, and application development quickly and interactively.

Robust integrated graphics, numerics, data I/O, and data management has made PV-WAVE the number one selling Visual Data Analysis software family.

If you are interested in the history of PV-WAVE and IDL, please see Appendix 2 and follow the links/directions to the IDL FAQ.

G02. Where can I contact VNI about PV-WAVE?
Visual Numerics, Inc., United States office:

Visual Numerics, Inc.

6230 Lookout Rd.
Boulder, Colorado 80301 USA
Tel: (800)447-7147, (303)530-9000 FAX: (303)530-9329
Email: pvwave@boulder.vni.com

Visual Numerics Inc., International Offices

Visual Numerics SARL Tour Europe
33 Place des Corolles
Cedex 07
92049 Paris La Defense Cedex France
Tel: +33-1-46-93-94-20 FAX: +33-1-46-93-94-39
Email: info@vni-paris.fr

Visual Numerics Japan, Inc.
Hongo, MK Building, 3rd Floor
22-21 Nishikara 2-Chome

Bunkyo-ku, Tokyo, 113 Japan
Tel: +81-3-5689-7550 FAX: +81-3-5689-7553

Visual Numerics International, GmbH
Zettachring 10
D-70567 Stuttgart
Germany
Tel: +49-711/72 87-490 FAX: +49-711/132870
Email: support@visual-numerics.de

Visual Numerics International Ltd.
New Tithe Court
23 Datchet Road
Slough
Berkshire
SL3 7LL United Kingdom
Tel: +44 (0) 1753 790600 FAX: +44 (0) 1753 790601
Email: info@vniuk.co.uk

Visual Numerics Inc., Taiwan
7F, #510, Sect. 5
Chung Hsiao E. Rd.
Taipei, Taiwan 110 ROC
Tel: 886 (0) 2-727-2255 FAX: 886 (0) 2-727-6798

G03. How do I get PV-WAVE?

Contact the sales office numbers provided in G02.

G04. What is the current version of PV-WAVE?

PV-WAVE 6.0 is the current version.

G05. On what systems does PV-WAVE run?

PV-WAVE version 6 is available now on Sun, HP, IBM, SGI and Digital UNIX systems, and on DigitalVAX and AXP OpenVMS systems. PV-WAVE Personal Edition, a scaled down version of PV-WAVE Command Language, is available for Intel-based PC systems running Windows 3.1. PV-WAVE 4.2 is available on NT and Windows NT. PV-WAVE 6.0 will be available on Windows NT 3.51 and Windows '95. Currently, these platforms are in a Beta release.

G06. What is IDL and how is it related to PV-WAVE?

Around the time that the Unix version of IDL first became available (1988), Precision Visuals Inc. (PVI) entered into an agreement with Research Systems Inc. (RSI) under which they enhanced and resold IDL under the name PV-WAVE. In September of 1990, they exercised an option in that agreement that resulted in the following:

- * PVI received a copy of the IDL source code as it existed in September 1990 in return for a one-time payment to RSI.
- * The connection between RSI and PVI was severed.
- * PV-WAVE and IDL are now on separate development tracks. Each company enhances, supports, and maintains its own product.

PVI has since merged with IMSL and is now Visual Numerics, Inc. (VNI).

G07. Are there anonymous FTP sites for PV-WAVE?

VNI maintains an anonymous FTP directory at their Web site:
<http://www.vni.com/pvwave.dir/wavehome.html>. Additionally, VNI maintains an ftp site at: <ftp.boulder.vni.com>.

G08. How can I get help?

VNI has excellent telephone and email support. You can contact them at numbers provided in G02. Keep in mind, however, that VNI's technical support is for their paying customers, i.e. those with current support contracts.

G09. Why is there one newsgroup for IDL and PV-WAVE and another for IDL only?

Unfortunately, there are two very different packages with the abbreviation "IDL". The newsgroup `comp.lang.idl` is for the Interface Definition Language. The newsgroup for discussing issues related to RSI's IDL and VNI's PV-WAVE and the short-lived IMSL/IDL is `comp.lang.idl-pvwave`.

G10. Does anyone at VNI read this group? Is anyone out there listening?

The following response was submitted by VNI's technical support.

Yes, one technical support engineer is tasked with the responsibility of reading the newsgroup routinely and responding to the appropriate questions by sending E-mail directly to the sender of the posting. Many others in VNI also monitor the group

in order to understand user's concerns, interests and issues. All PV-WAVE users that would like VNI to respond to their technical questions should call or E-mail our technical support group for help. We also encourage PV-WAVE users to subscribe to the PV-WAVE Mailing List in addition to or instead of using this newsgroup since it provides a direct line to other PV-WAVE users and internally to VNI employees.

G11. When is the next version of PV-WAVE due out?

The Windows 95 and NT release of PV-WAVE 6.0 is due out within the first half of 1996. No firm date has been set at this time for the next UNIX and VMS releases.

G12. Are there training courses available for PV-WAVE?

Yes. Quoting from the training information web page:

The course is a very comprehensive introduction to the product. The first three days of the course is designed to bring novice users up to speed fast. The fourth optional day provides coverage of intermediate topics such as interfacing PV-WAVE Advantageor Command Language with software programs and building Graphical User Interfaces (GUI). The class is half lecture and half "hands-on." Classes are normally held at our training facilities in:

- * Boulder, Colorado
- * Stuttgart, Germany
- * Paris, France
- * Slough, Berkshire, UK

We can, however, send an instructor to your site should you wish to train a larger number of people.

You will learn how to:

- * Read your data into PV-WAVE
- * Display it in numerous ways
- * Use the many data analysis and array manipulation commands
- * Create and manipulate windows
- * Perform image display and image processing commands
- * Load and create new color tables
- * Write PV-WAVE procedures, functions, and programs

- * Interface PV-WAVE with C and Fortran programs (4 day class only)
- * Create Graphical User Interfaces using PV-WAVE Widgets (4 day class only)
- * and more!

G13. Is there a World Wide Web server for PV-WAVE or PV-WAVE based projects?

VNI has WWW pages on PV-WAVE in general:
<http://www.vni.com/pvwave.dir/wavehome/html>

G14. Is there a mailing list for PV-WAVE?

The PV-WAVE mailing list is an electronic forum where users can communicate via e-mail in order to discuss topics relating to PV-WAVE. Additionally, VNI employees will be able to post announcements and reply to user's questions. To subscribe please include: subscribe pv-wave Your_Firstname Your_Lastname in the body of a message addressed to listproc@boulder.vni.com For more information on the mailing list (without having to subscribe) please include: info pv-wave in the body of a message addressed to listproc@boulder.vni.com

G15. Where can I find help to PV-WAVE questions?

VNI has a Tips Searchable Database available on their WWW homepage and their ftp site. The Tips Searchable Database is a database of over 500 PV-WAVE questions and answers.

G16. How can I access the "tips" database at VNI?

You can search the Tips database for PV-WAVE information. A search engine is provided to allow you to search through the 500-600 online tips.

G17. Can I get support electronically?

Yes. VNI has a Technical Services Home Page. You can (quoting from selections on the support page):

- * Search the Tips database for PV-WAVE information.
- * Get articles covering PV-WAVE topics from the Tech Notes Library.
- * Discuss PV-WAVE with other users via the PV-WAVE Mailing List
- * Download useful files from the PV-WAVE anonymous ftp site.

- * Obtain user-contributed PV-WAVE code from the PV-WAVE User Library.
- * Softkey Information is available to help you unlock your PV-WAVE software.
- * Email Technical Support, or directly using support@boulder.vni.com
- * Technical Support Phone Numbers
- * PV-WAVE Training Information
- * The Consulting Services Group can provide you with custom-tailored solutions.

G18. How can I find if a routine to do what I want already exists?

One of the most useful tools to find an available routine is Pete Riley's

Searchable List of all IDL Routines.

This list is available from Pete's IDL page at
<http://xlr8.lpl.arizona.edu/idl.html>.

If you would like to add your IDL library to Pete's list contact him at
uk2@lpl.arizona.edu.

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