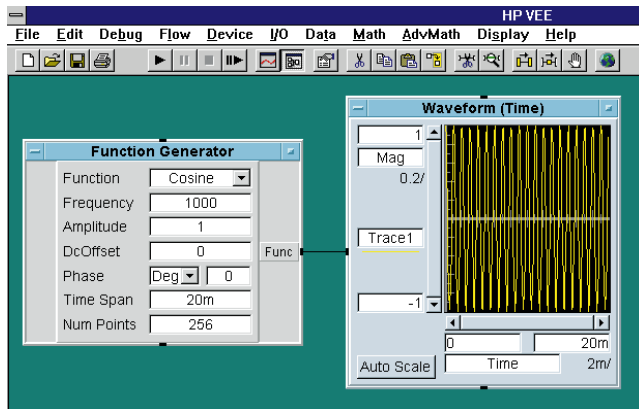

HP VEE (Visual Engineering Environment) HP E2120C

Technical Specifications

- **HP VEE 3.12 for Windows 3.1**
- **Cut test development time**
- **Collect and analyze data quickly**
- **Modify programs quickly and reduce time to market**
- **Leverage existing measurement programs with speed and simplicity**



The Productivity of HP VEE

HP VEE is a powerful visual programming language.

To develop programs in HP VEE, you connect graphical “objects” instead of writing lines of code. These programs resemble easy-to-understand block diagrams with lines.

Hewlett-Packard’s design creates a productivity paradigm where one HP VEE object accomplishes an entire series of steps in a typical activity (while still allowing low level “peeks & pokes”).

Also, as a full language, HP VEE:

- Provides I/O and networking capabilities that iconic GUI builders can’t handle.
- Develops program logic flow that iconic C code-generators don’t have.

HP VEE is a Better Software Citizen

HP VEE allows you to leverage your existing software, such as C/C++, Basic, PASCAL, FORTRAN, as well as popular database, word processing and spreadsheet programs including MS Word or Excel.

If your main program is in C/C++, you can call HP VEE programs that would be difficult to write in C/C++ (such as instruments tie-ins), or you can create your main program in HP VEE and call C/C++ programs.

Engineers like the short learning curve of HP VEE — the majority see on-the-job results within the first week! Managers appreciate HP VEE because it is easy to understand and maintain, so cross-training is enhanced and maintenance efforts are reduced.



HP VEE is More Efficient

HP VEE has a wide array of measurement capabilities that include sensors, PC plug-in cards, standalone instruments or complete systems. HP VEE has over 450 instrument drivers plus the ability to use VXiplug&play drivers from any vendor. HP VEE can control your instrumentation from any vendor. HP VEE is especially suited to fast development and maintenance or user and instrument interfaces and displays, using a wide assortment of widgets.

With the increasing importance of ISO standards in manufacturing, HP VEE includes easy-to-use documentation features for code management.

HP Test Software

- Software leader for over 20 years.
- More than 1,000,000 test software customers worldwide.
- Dozens of related patents.
- Developed technology that established numerous industry standards.

Every programming language, whether visual or textual, is evaluated under the same set of rules.

You look for **power** to help you get your job done. **Ease of use** to get it done quickly. **Open systems**, so you can maximize interoperability among different platforms, different languages, and different hardware combinations in a multivendor environment. **Choices**, so you can decide whether to build your own system or buy a pre-bundled solution. And world-class **support**, so you can get up-and-running quickly, train new people effectively, and keep your solution running around the world.

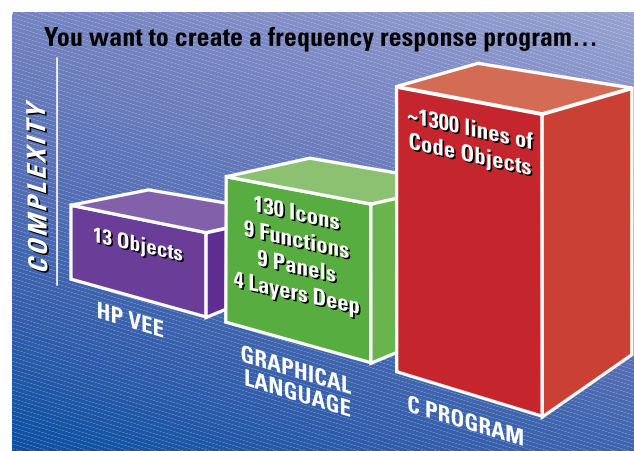
Add it up, and you'll see why companies worldwide call HP VEE "**The Productivity Language**" for test and measurement.

The Productivity of HP's Visual Programming

In the five years since HP VEE came to test and measurement, visual programming languages have transformed the test industry, growing from a good idea into a key productivity advantage for many companies. In the process, HP VEE has exploded in popularity, capturing a dedicated worldwide user base in all major industry segments and applications.

"The MTC has fully embraced the (visual) programming paradigm as a development standard. We continue to see tremendous productivity and quality improvements over traditional text-based software development, an attribute which certainly points the way to an emerging industry standard."

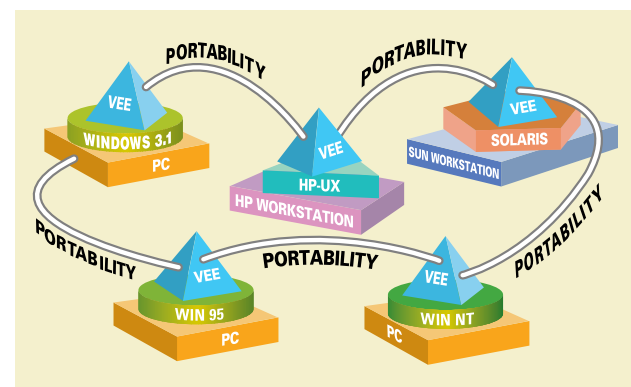
Dr. Edmund Baroth
Technical Manager of the
Measurement Technology Center (MTC)
Jet Propulsion Laboratory



HP's unique design is the heart of HP VEE's productivity paradigm.

HP VEE is open

Porting to Other Operating Systems

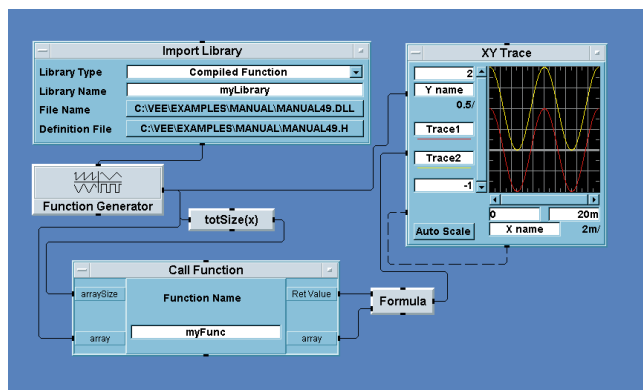


HP VEE provides forward compatibility across operating systems to assure maximum productivity among engineers, departments and companies.



Leveraging Other Languages

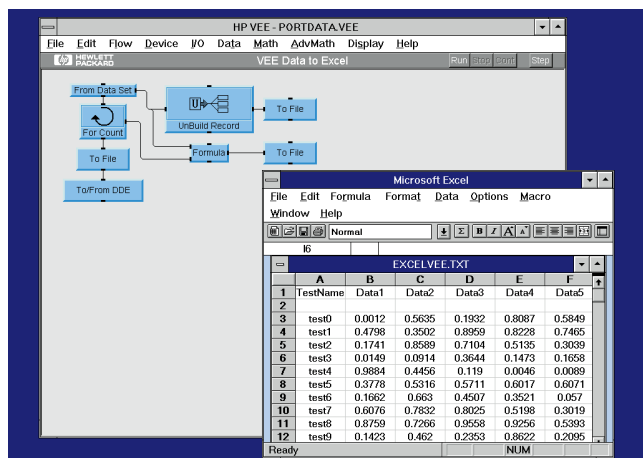
- Leverage your other test programs for use within HP VEE. You can use popular textual languages such as C/C++, Visual Basic, HP BASIC, and FORTRAN.
- Use standard ties to languages such as Dynamic Link Libraries (DLLs) or Dynamic Data Exchange (DDE) in MS Windows, and Shared Libraries or Named Pipes in UNIX.
- Extend HP VEE's capabilities to suit your own application by using off-the-shelf libraries in other languages.



This HP VEE program is calling a C function in a DLL, which adds one to the incoming waveform and returns it to HP VEE.

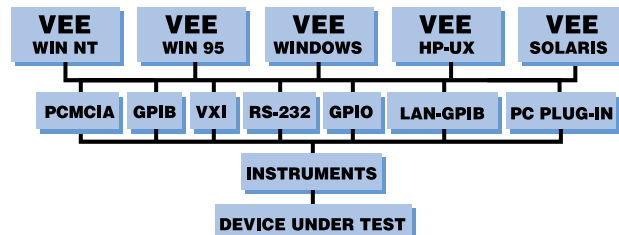
Integrating Other Applications

- Launch virtually any application available on your operating system.
- Share test data with applications such as spreadsheets and databases.



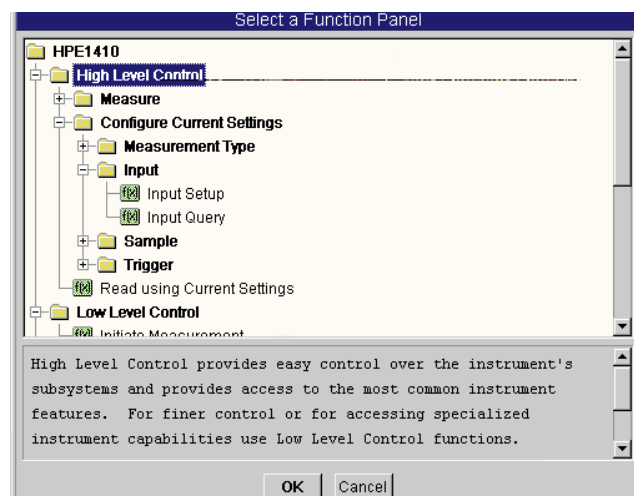
This HP VEE program uses DDE to send test data to a Microsoft Excel spreadsheet automatically.

Talking to Any Instrument



HP VEE can talk to a broad range of instruments through direct I/O, the 450 VEE drivers or any industry standard *VXIplug&play* driver!

What's New in HP VEE 3.2



More Open

- Now HP VEE supports **Windows 95** and **Windows NT**, as well as Windows 3.1, HP-UX Series 700, HP-UX Series 300 and Solaris platforms.
- Easy-to-use **VXIplug&play** driver support for all Windows and HP-UX Series 700 platforms assures productivity in multivendor environments.
- Hard to believe, but HP VEE now offers **unlimited Run Time**—just order Option RUN under the full development product you're using. This one-time low cost option lets you sell your solutions or use them throughout your organization without additional purchases and without getting tangled in additional licensing requirements.
- Now you can use HP VEE as either a **client or a server**—it's your choice. Create your own programs in HP VEE, calling C/C++ programs if you need them. Or write in C/C++ and call HP VEE for the tough programming tasks, such as creating instrumentation tie-ins and GUIs.

- HP VEE 3.2 now works even better on PC plug-in cards. Data Translation's Visual Programming Interface provides menu picks in HP VEE for seamless PC plug-in data acquisition to over 50 cards. MEILHAUS ELECTRONIC'S data acquisition boards, serial interface boards, and intelligent sensor modules deliver comprehensive **PC data acquisition** solutions through HP VEE.



HP VEE is compatible with **VXIplug&play**. HP VEE runs its current 45+ drivers **PLUS** all **VXIplug&play** drivers (3.0) released from HP or other vendors.

What's New in HP VEE (3.2) for Windows 95/NT



Ease eye strain and keep your designs clear and easy to follow with double the number of colors!

More Powerful

- Now you can easily create and print key program parameters, including the information that's especially important for maintaining ISO 9000 **documentation**. Print complete transaction details too, not just summaries, with HP VEE.
- Quickly switch programs in time-critical applications thanks to HP VEE 3.2's **faster load time** (three to five times faster).
- Now you can export HP VEE data to PV-WAVE, and use this powerful **graphics analysis** package to display HP VEE data files.

*Turn complex HP VEE data into easily understandable world-class graphics for clear visual analysis.

*View HP VEE data as 2D, 3D or 4D images, including plots, graphs, charts, surfaces, and projections.

*Spend more time on actual analysis and problem-solving, and less time trying to decipher data.

Easier

- Create, move and **modify faster** with HP VEE's cleaner, clearer ways to draw and connect lines.

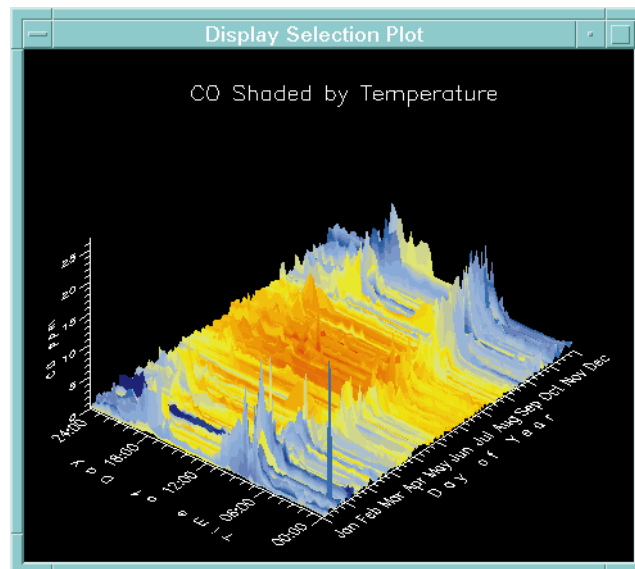
More Value

- And HP VEE is now even more affordable, featuring a **price cut** on HP VEE and HP-UX Series 700 and Solaris.

"The integration between PV-WAVE and HP VEE is such a natural fit. We're excited about the prospects of this development, both for what it will allow us to offer our customers here at JPL and elsewhere, and for what it will do to advance the industry in general."

Dr. Edmund Baroth

Technical Manager of the Measurement Technology Center
Jet Propulsion Laboratory

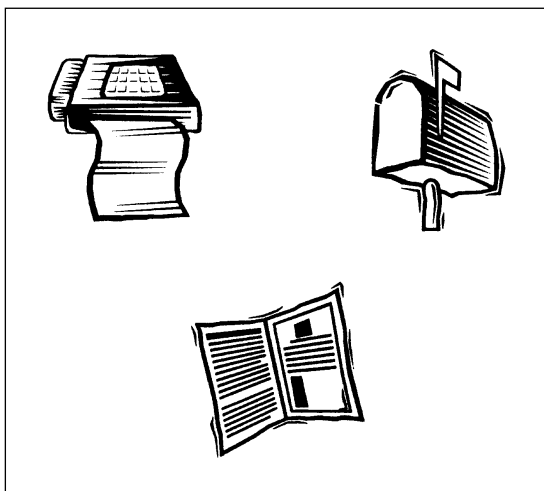


HP VEE data files can be imported into PV-WAVE and displayed for clear visual analysis.

Free Start-Up Support

Hewlett-Packard's world class support starts when you register your new HP VEE. At that time you'll receive, at no charge, access to:

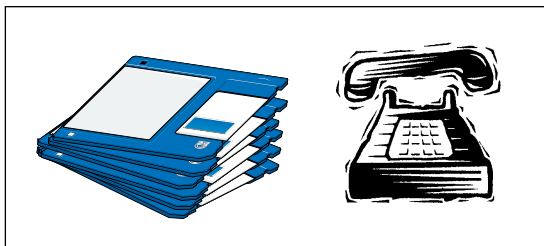
- HP VEE WEB site/BBS
- HP VEE Internet Users Group
- HP VEE Monthly Newsletter
- HP's 24 hour faxback service



- You can contact HP by phone, fax or the Internet to get high-quality service.
- Enjoy a complimentary start-up phone support contract with your purchase of HP VEE for Windows.
- Scan the Internet and bulletin boards for up-to-the-minute information on HP VEE, including current driver lists and application notes.
- Talk to other HP VEE customers over e-mail to share application ideas.

Other HP Support and Services

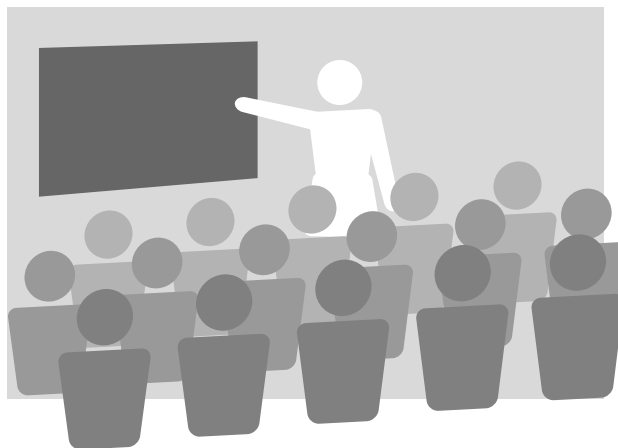
In addition to free factory support, HP also offers a complete range of support services to give you access to the latest and most complete worldwide technical support available. Call an HP sales representative at one of the numbers listed on the back cover for more information:



- Order the HP VEE Update Subscription Service to get free software updates, software revisions, bug fixes, new instrument driver releases, and application notes.
- Use HP's long-term phone support contracts available on all platforms to get immediate answers to puzzling questions.
- Use HP's custom system integration services to get specialized services using components from any vendors.
- Use HP's Technical Assistance Service Contract to get guaranteed two-hour worldwide response to your questions regarding HP VEE. The contract connects you to expert HP troubleshooters who know test and measurement inside-out.

HP Training

- Learn quickly at your own pace with on-line documentation, HP VEE manuals, or the Prentice-Hall books. All provide practical examples to get you up-and-running quickly.
- Get classroom instruction from an HP VEE expert either at your site or at an HP customer training center. To register, contact your Hewlett-Packard Sales Representative or call 1-800-HP CLASS in the U.S. to learn more.



Find Out More

See how other customers have implemented HP VEE.

Call the nearest HP sales office and ask for a free brochure of case studies, HP VEE Visual Engineering Environment (Pub. No. E5962-9239E).

Use free evaluation software on this CD.

You'll find on this CD a full working copy of HP VEE, yours to try at no charge for 60 days. You can try before you buy, using the on-line documentation and practical examples to get up-and-running quickly.

Try building your own application at your own pace.

The HP VEE Evaluation Kit plus the Prentice Hall books listed below make a great team for self-paced development of your own application. Order the book *Graphical Programming: A Tutorial for HP VEE 3.0* by Robert Helsel, © 1995, a self-paced training book for Windows 3.1 applications:

English Version **ISBN 0-13-362823-X**

German Version **ISBN 0-13-520289-Z**

The latest book on HP VEE for Windows 95 and Windows NT, *Visual Programming with HP VEE* by Robert Heisel, © 1996, can also be ordered through Prentice-Hall or your local technical bookstore (ISBN 0-13-533548-5).

Prentice-Hall Ordering phone numbers:

U.S.A **800/947/7700**
Europe **44-442 88255**
Japan **8-1-3 32 37 1050**

Buy a copy of HP VEE.

To purchase HP VEE contact your nearest HP Sales Office for additional ordering information and pricing, or purchase over the phone by calling HP Direct or one of the regional offices listed on the back cover.



Specifications

PC

HP-IB:	Windows 3.1/95/NT
VXLink:	Windows 3.1/95/NT
Embedded:	Windows 3.1/95/NT
PC software requirements:	Windows 3.11 (E2120C) Windows 95/NT (E2120D)
PC CPU requirements:	33 MHz 80386 CPU 33 MHz 80486 system (recommended)

PC memory requirements:

Windows NT:	16 MB RAM (24 MB recommended)
Windows 3.1/95:	8 MB (16 MB recommended)

Ordering Information

Description	Product No.
HP VEE 3.12 for Windows 3.1	HP E2120C
Two Response Center Callers	HP E2120C H00
Order E2120C#ABx+UA8	HP E2120C UA8
Delete media	HP E2120C 1AK
Taiwan - Chinese localization	HP E2120C AB0
U.S. - English localization	HP E2120C ABA
VEE for Windows, English, S/W, Doc & Lic	HP E2120C ABAUA8
Germany - German localization	HP E2120C ABD
Spain - Spanish localization	HP E2120C ABE
France - French localization	HP E2120C ABF
Japan - Japanese localization	HP E2120C ABJ
Italy - Italian localization	HP E2120C ABZ
Current revision	HP E2120C AGE
VEE 3.12 Run Time for Win 3.1 (1 copy)	HP E2120C RN1
HP VEE 3.12 Run Time for Windows 3.1	HP E2120C RUN

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