What's New in HP VEE

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Introducing HP VEE 3.0

This guide will help you when upgrading from a previous version of HP VEE. It describes changes from HP VEE version 2.0 for both Microsoft® Windows and UNIX® platforms.

This book contains only a summary of changes; for details on how to use the new features, refer to:

- *How To Use HP VEE* (E2110-90032).
- *Building an Operator Interface* (E2110-90033).
- *HP VEE Advanced Programming Techniques* (E2110-90034).
- *HP VEE Reference* (E2110-90035).
- Online `Help` ⟹ `On Features`.
- The examples accessed by `Help` ⟹ `Open Example` in the `new` directory.

Installation. When you install HP VEE 3.0, your old HP VEE executable file, examples, and ID's (if desired) are replaced. Your `VEE.IO` (or `.veeio`) and `VEE.RC` (or `.veerc`) files are retained.

Any color or font settings you customized in `VEE.INI` (Windows) or an app-default file (UNIX) for previous versions of HP VEE won't be used because of the different and more extensive ways available to customize your program in HP VEE 3.0.

For HP VEE for UNIX, if you specified a non-English keyboard or font set in an app-defaults file, you now need to specify it via the `LANG` environment variable instead. Details about this task are covered in *HP VEE Advanced Programming Techniques*.

If you want to keep a previous version of HP VEE on UNIX, move the directories in and below `/usr/lib/veetest/` to another location before installing HP VEE 3.0. When you want to run the previous version, use the `-d` command line option to specify the location.

If you want to keep a previous version of HP VEE on Windows, install HP VEE 3.0 in a separate directory.

See *Installing HP VEE* for details on upgrading.

Compatibility. All programs created with previous versions of HP VEE will load and run with HP VEE 3.0.

Because HP VEE 3.0 has different default fonts than previous versions, your programs may look different. They will run the same as previously.

Conventions Used in this Manual

This manual uses the following typographical conventions:

Example	Represents
HP VEE Reference	Italicized words are used for book titles and for emphasis.
`File`	Computer font represents text you will see on the screen, including menu names, features, buttons, or text you have to enter.
`dir` *filename*	In this context, the word in computer font represents text you type exactly as shown, and the italicized word represents an argument that you must replace with an actual value.
`File` ⟹ `Open`	The "⟹" is used in a shorthand notation to show the location of HP VEE features in the menu. For example, "`File` ⟹ `Open`" means to select the `File` menu and then select `Open`.
`Zoom Out | In 2x | In 5x`	Choices in computer font, separated with a bar (|), indicate that you should choose one of the options.
Return	The keycap font graphically represents a key on the keyboard.
Press Ctrl + O	Represents a combination of keys on the keyboard that you should press at the same time.
Dialog Box	Bold font indicates the first instance of a word defined in the glossary.

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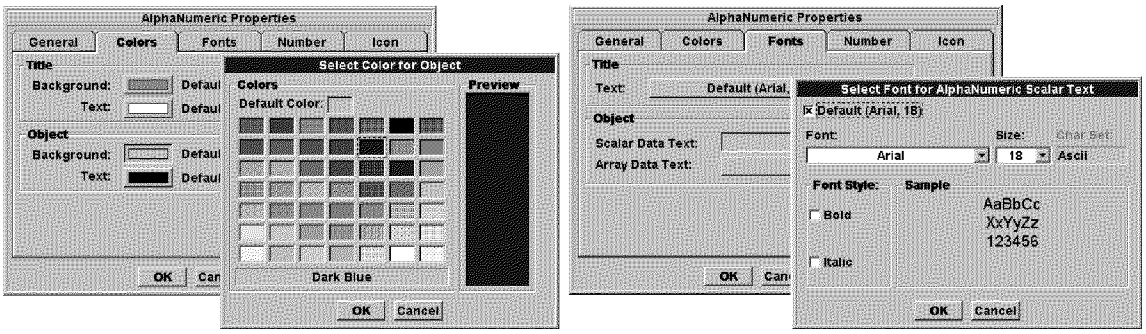
Introducing Colors & Fonts (And Other Properties)

Introducing Colors & Fonts (And Other Properties)

The first thing you probably heard about HP VEE 3.0 was the new ability to change colors and fonts throughout your program. Colors, fonts and attributes of your program, such as title, are called *properties*. You change colors, fonts, and other properties via Properties dialog boxes (such as shown below).



Select colors from an HP VEE-supplied palette and fonts from the set of available fonts on your system.

Properties dialog boxes are grouped into "tabs" that contain specialized information. For example, the Properties dialog box shown above has five tabs: `General`, `Colors`, `Fonts`, `Number`, and `Icon`. To access the information on each tab, click on the tab.

Three Types of Properties Dialog Boxes

You can change many options other than colors and fonts via Properties dialog boxes. The options that you can set depend on the type of Properties dialog box. The three types of Properties dialog boxes control three sets of properties, each with a different scope):

- HP VEE System Properties

  These properties set the default values for the program and, if saved, become the default values for all programs. Some of the properties include **Trig Mode** and **Auto Line Routing**, the colors and fonts that objects inherit, and printing specifications. The system Properties dialog box is accessed via **File** ⟹ **Edit Default Preferences** and replaces **File** ⟹ **Preferences** ⟹. Details about this Properties dialog box are explained in "Setting HP VEE System Preferences".

- HP VEE Work Area Properties

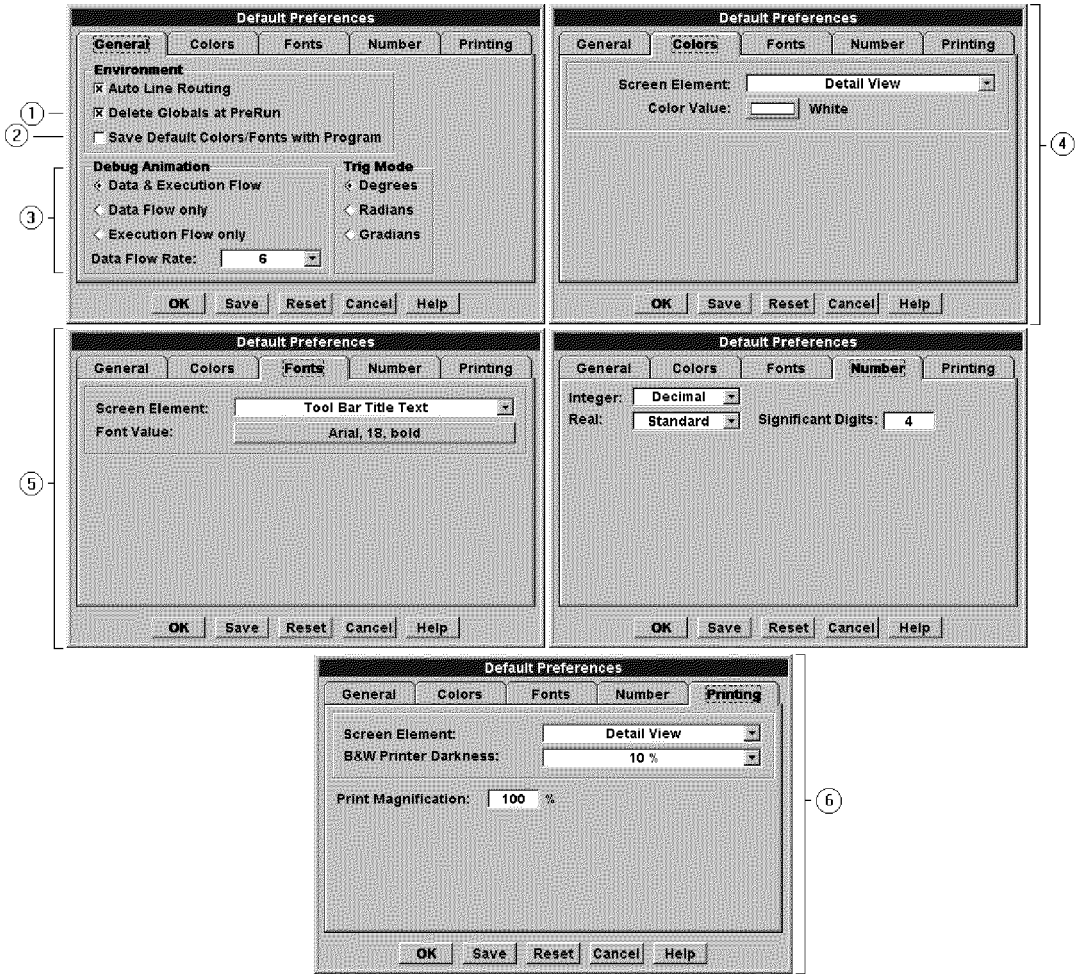
  These properties set the colors and fonts for the main work area. They also set the program title and **Trig Mode** The work area Properties dialog box is accessed via **File** ⟹ **Edit Properties**.

- Individual Object Properties

  These properties set the look and operation of the object. The properties include setting colors, fonts, and **Title** text, and specifying **Breakpoint Enabled** and **Show Title**. The object properties are accessed via **Edit Properties** on the object menu. Details about this Properties dialog box are explained in "Introducing the Object Properties Dialog".

Setting HP VEE System Preferences

In previous versions of HP VEE, you set system preferences via the `File` ⟹ `Preferences` ⟹ menu choices; in HP VEE 3.0, you set them via the Properties dialog box from `File` ⟹ `Edit Default Preferences`.



HP VEE 3.0 Changes to Preferences:

1. `Delete Globals at PreRun` (New for HP VEE for UNIX) - If the check box is selected, the global variables are reset so that old values (from previous executions) are not retained. The default is on.
2. `Save Default Colors/Fonts with Program` - If the check box is selected, all color and font preferences set in this dialog box are explicitly saved in your program file so that when you give a program to others, all the color and font information is specified for your program. If the check box is not checked, only the colors and fonts changed from the default values for each object are saved. The default is off.
3. `Debug Animation` group - Lets you select your preference for debugging. When `Edit` ⟹ `Animate` is selected, this preference is used. `Animate` replaces `Show Data Flow` and `Show Execution Flow`.
4. `Colors` tab - Lets you assign colors to different screen elements such as `Tool Bar Text` or `Detail View` background.
5. `Fonts` tab - Lets you assign font choices to different screen elements such as `Menu Text` or `Object Title Bar Text`.
6. `Printing` tab - Allows you to select the shade of gray to use for each screen element, when printing to non-color printers. The defaults are usually fine for most printers. This tab also lets you specify the magnification used when printing an HP VEE program or part of a program.

   For HP VEE on UNIX, the printing options `Printer Config` and `Plotter Config` are located on the `Printing` tab.

When you press (OK), the preferences are changed in the work area, but not saved in the defaults file (`VEE.RC` or `.veerc`).

When you press (Save), the default preferences are changed in the work area and saved in the defaults file: `C:\VEE\VEE.RC` or *$HOME*`/.veerc`.

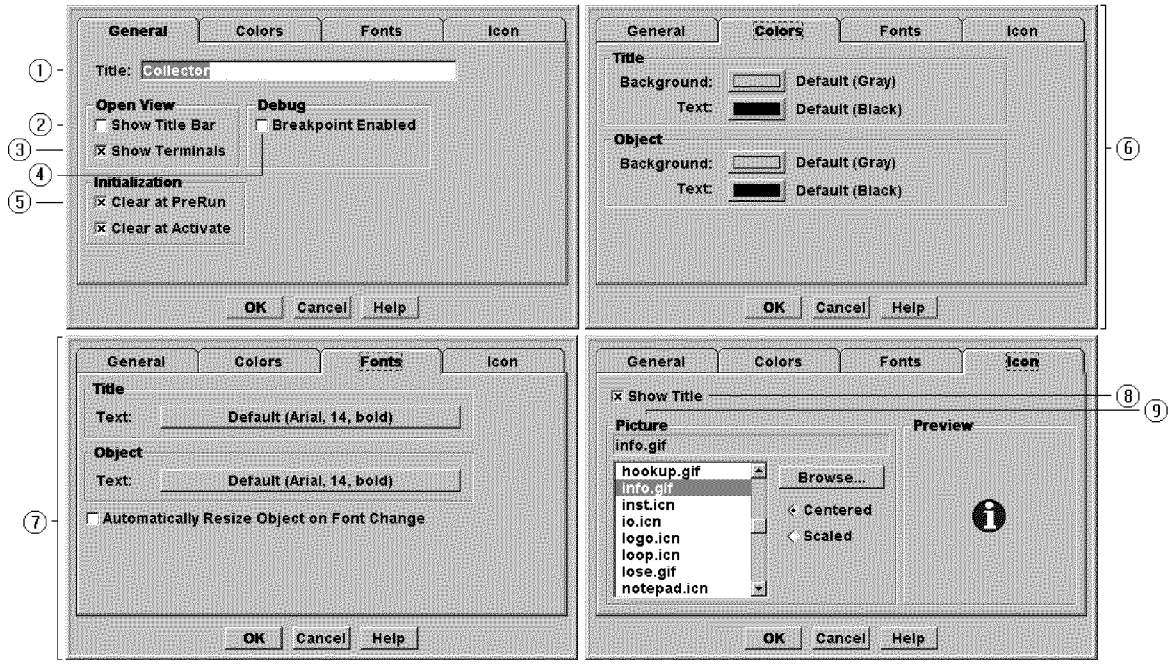
When you press (Reset), HP VEE reads the defaults file (`VEE.RC` or `.veerc`) and resets the work area to those preferences.

Due to lack of use, `Waveform Defaults` and `Default Merge Directory` are not set in HP VEE 3.0 or saved in the defaults file. A program that has set `Waveform Defaults` will load and run just like before. But if you resave it, the `Waveform Defaults` setting will not be saved in the program file.

Introducing the Object Properties Dialog

Prior to HP VEE 3.0, all the properties of an object were accessed via the object menu. To improve accessibility and to minimize the size of the object menu, every object now has an associated Properties dialog box. It sets many options that used to be on the object menu, and new properties such as colors and fonts.

You get the Properties dialog box by selecting `Edit Properties` from each object menu or by double-clicking on the object's title bar.



Every object's Properties dialog box allows you to set:

1. `Title` - Replaces `Change Title` on the object menu.
2. `Show Title Bar` - Replaces `Show Title` on the object menu.
3. `Show Terminals` - Replaces `Terminals` ⟹ `Show Terminals` on the object menu.
4. `Breakpoint Enabled` - Replaces `Breakpoint` on the object menu.
5. Many objects also have object-specific properties like `Clear At PreRun`.
6. `Colors` - You can set colors for the object, object title, and object text on the `Colors` tab.
7. `Fonts` - You can set fonts for the object text and object title text on the `Fonts` tab.
8. Icon `Show Title` - Replaces `Layout` ⟹ `Show Label` on the object menu.
9. Icon `Picture` - Replaces `Layout` ⟹ `Select Bitmap` on the object menu.

   The currently supported graphics formats are:
   Bitmap (*.BMP) - Windows and UNIX
   GIF87a (*.GIF) - Windows and UNIX
   XX11 Bitmap (*.ICN) - Windows and UNIX
   X11 Window Dump (*.xwd) - UNIX only

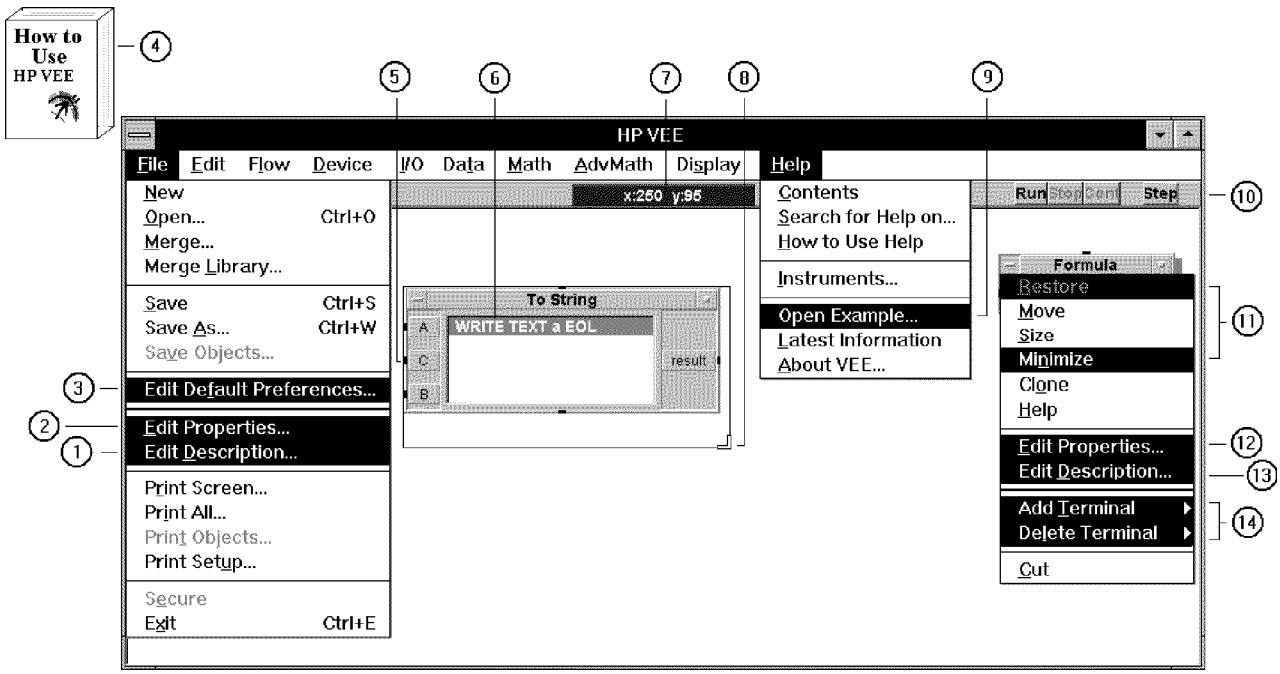
   HP VEE for UNIX icon files now have the extension `.icn` instead of `.icon`.

Introducing the Object Properties Dialog

2

Looking at the HP VEE Work Area

Looking at the HP VEE Work Area



HP VEE 3.0 Changes to the Development Area:

1. `Edit Description` replaces `Show Description`. Now you can import a file, clear the description, or insert a template while editing the description of the program.
2. `Edit Properties` sets the program title, `Trig Mode`, colors, and fonts for the main work area. Double-click on the program's Tool Bar as a short cut.
3. `Edit Default Preferences` replaces `Preferences` ⟹ and sets environment preferences, printing options, and default colors and fonts for your programs.
4. *How to Use HP VEE* replaces *Using HP VEE*. Read the new task-oriented book to help you get your tasks done faster.

5. Ctrl+A in the terminal area of an object, now inserts a data terminal where cursor is.
6. Double-click to select a transaction even if the transaction is already highlighted (to be consistent with Windows interaction standards).
7. The Tool Bar display shows the width and height (in pixels) when resizing objects, and the x, y coordinates when moving them.
8. Resize an object by dragging the lower right corner of the object.
9. `Help` ⟹ `Open Example` puts you directly in the examples directory to let you quickly load example programs. The `new` directory contains examples that demonstrate the new HP VEE 3.0 features.
10. Use accelerators for program execution control:
    Ctrl+G "Go" = `Run`
    Ctrl+T "Trace" = `Step`
    Ctrl+V "Vroom"= `Continue`
    (all in a line on your keyboard for quick access).
11. `Restore` and `Minimize` menu choices are on all object menus to let you switch between an object's icon view and open view via the menu. `UserObjects` also have a `Maximize` menu choice to maximize the object to the size of the program window.
12. `Edit Properties` sets colors, fonts, and other properties for each object. Double-click on the object's title bar as a short cut.
13. `Edit Description` replaces `Show Description`. Now you can import a file, clear the description, or use a template that automatically inserts the title of the object and the terminal names, while editing the description of the object.
14. `Add Terminal` ⟹ and `Delete Terminal` ⟹ object menu choices replace `Terminals` ⟹.

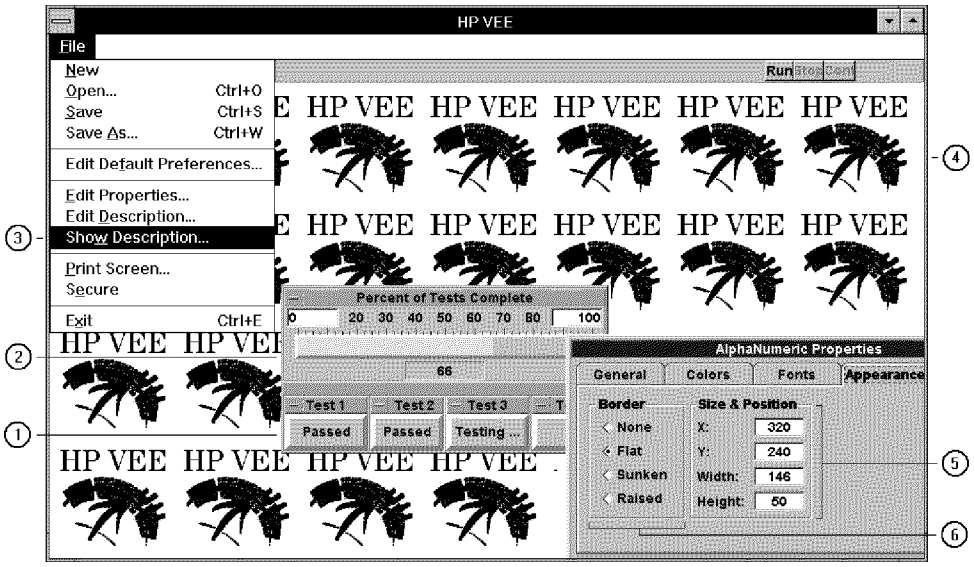
Other Changes:

- Edit fields now follow the Windows editing conventions. And you can use Tab to navigate between fields on the same object.
- You get the same object menu from the open view and the icon view of an object. However, you get additional properties choices once the object is copied to the Panel View to allow you to change the appearance of the object on the panel.
- `Print Screen`, `Print Object`, and `Print All` now print the date and page number as the header on each page of the printout.
- When single stepping through a program, the next object to operate is outlined by a colored highlight; this highlight replaces an arrow pointing to the object.

Additional Changes from HP VEE 2.0 for UNIX:

- New hyperlinked help via the HP VUE help system.
- Keyboard accelerators are listed on the menus.
- `Delete Globals at PreRun` is an option under `File` ⟹ `Edit Default Preferences`.
- You can change the title of an object from the icon view or the open view via `Edit Properties` on the object menu.
- You must drag to (with the mouse button down) or click on a cascading menu to get cascading menu choices.
- Example program file names now have the extension `.vee`.

When Creating a Panel View



HP VEE 3.0 Changes to the Panel View:

1. Automatic snap-to-grid on the Panel View helps you line up objects or make them the same size. (You set the size of the grid via `File` ⟹ `Edit Properties`, on the `Panel` tab).
2. You can programmatically show and hide a UserFunction Panel with the `showPanel()` and `hidePanel()` objects. They are located under `Device` ⟹ `Panel` ⟹. This feature allows you to keep a status panel displayed, and update it as your program runs.
3. `Show Description` lets users see the description text that was input via `File` ⟹ `Edit Description`. After you `Secure` the Panel View, `Edit Description` is gone; only `Show Description` is available.

4. The Panel View background picture can be scaled or tiled (as well as staying the original size or resizing the panel to the graphic's size).

   The currently supported graphics formats are:
   Bitmap (*.BMP) - Windows and UNIX
   GIF87a (*.GIF) - Windows and UNIX
   X11 Bitmap (*.ICN) - Windows and UNIX
   X11 Window Dump (*.xwd) - UNIX only
5. You can precisely set the size and position of an object on the Panel View to the nearest pixel (via the object's Properties dialog box).
6. You can set the "depth" appearance of an object on the Panel View by specifying the border characteristics (via the object's Properties dialog box).

Other Changes:

- While the program is running, you now have access to object menu features for objects on Pop-Up Panels. For example, you can access `Zoom` on an `XY Trace` object.
- You cannot `Move`, `Size`, `Delete` or `Edit Properties` on objects that are on a panel while the program is running.
- While the program is running, you can navigate to objects on the Panel View without a mouse. You can Tab between fields (Shift+Tab to move back) and use the Space bar to select choices.
- There is a new command line option, `-notoolbar`. This option is used in conjunction with `-r` to hide the HP VEE Tool Bar while the program is running.
- There is a new command line option, `-noerrdisp`. This option is used in conjunction with `-r`. If the specified program does not run due to an error, HP VEE exits immediately without displaying an error message.

Additional Changes From HP VEE 2.0 for UNIX:

- When displaying a graphic image on the Main Panel, the panel no longer resizes to the size of the image.
- You can delete the graphic image from the Panel View.
- If the program has not been changed since it was last saved, `File` ⟹ `Secure` does not prompt you to save the unsecured version. So after you've chosen `Secure`, you need to `Save` the secured version (to a different file name).
- When you `Open` an HP VEE 2.0 file, the border for all Panel View objects is automatically set to `None`.

3

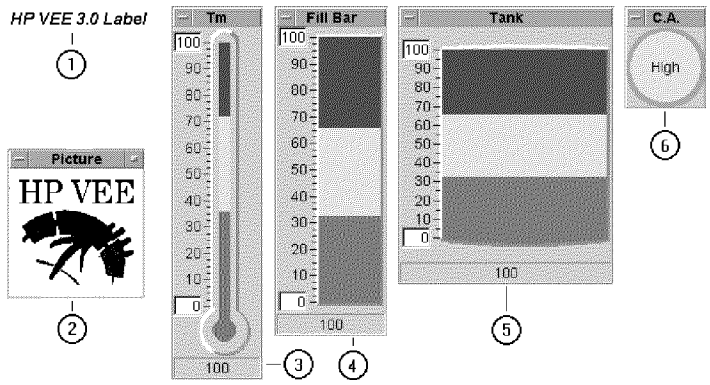
Using HP VEE 3.0 Objects

Using HP VEE 3.0 Objects

There are new and modified objects in HP VEE 3.0; this chapter describes them briefly. For details, see the *HP VEE Reference* and online help. This chapter summarizes the following changes:

- New **Display** ⟹ **Indicator** ⟹ Objects:
  - **Label**
  - **Picture**
  - **Thermometer**
  - **Fill Bar**
  - **Tank**
  - **Color Alarm**
- New **Dialog Box** Objects (on the **Data** Menu):
  - **Text Input**
  - **Integer Input**
  - **Real Input**
  - **Message Box**
  - **File Name Selection**
  - **List Box**
- Additions to the **I/O** menu and enhancements to **I/O** menu choices:
  - New features such as **To/From Socket**, **ID Monitor**, and **MultiDevice Direct I/O**.
  - Enhancements to all forms of instrument communication.
- New **Toggle Control** and **Selection Control** objects.
- A set of enhancements for many other HP VEE objects.

Thermometers and Other New Display Objects



New HP VEE 3.0 Display Objects:

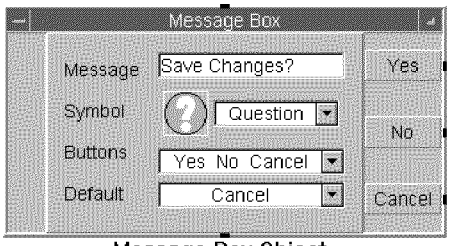
1. `Label` - Lets you put a label on the Panel View. By default, the `Label` background color is the same as the panel's, so that only the `Label` text is seen.
2. `Picture` - Lets you put a graphic image on the Panel View. You can tile, stretch, or clip the image. You can also size the `Picture` object to the actual size of the image.
3. `Thermometer` - Lets you display a value on a horizontal or vertical thermometer, with up to three color ranges.
4. `Fill Bar` - Lets you display a value on a horizontal or vertical fill bar, with up to three color ranges.
5. `Tank` - Lets you display a value on a horizontal or vertical tank, with up to three color ranges.
6. `Color Alarm` - Lets you display a round or rectangular "LED" with colors and text for up to three ranges.

Other HP VEE 3.0 Changes:

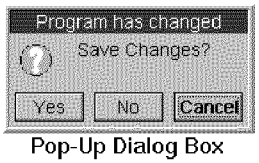
- `Meter` may be horizontal or vertical. You can change the colors of the `Sub-Range Configuration`. You can also turn off the digital display for greater speed.
- `Note Pad` now has `Insert File` and `Clear All` choices on the object menu.

Dialog Box Objects

Are you tired of creating `UserObject` pop-up panels just to get one line of user input or to display a message? The new `Dialog Box` objects (located under `Data` ⟹ `Dialog Box` ⟹), will save you time and effort. For example, the `Message Box` object, shown below, pops up the dialog box to the right; no additional objects are needed. After the user has responded, the pop-up dialog box goes away.



Message Box Object



Pop-Up Dialog Box

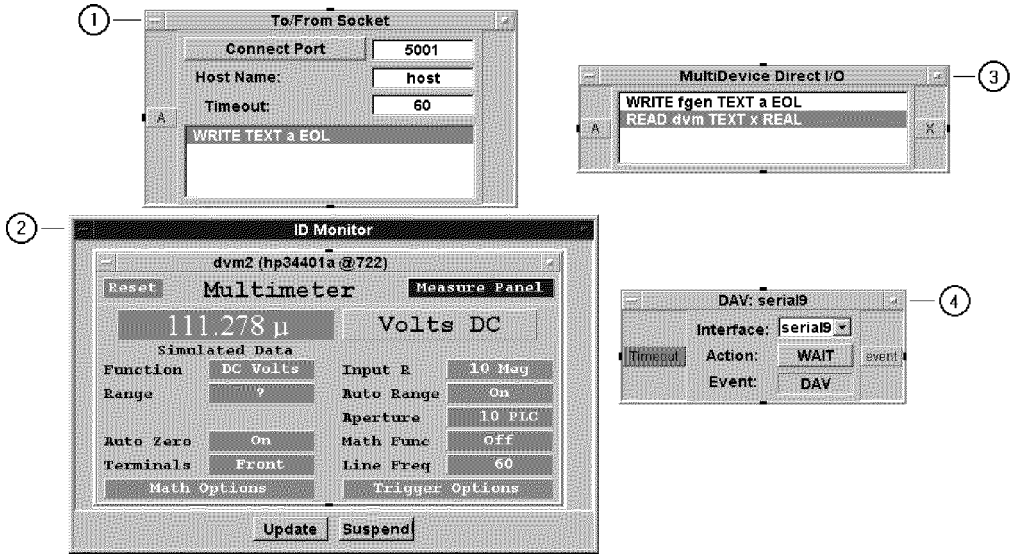
The `Dialog Box` objects do not need to be added to a panel, they pop up on both the Panel View and the Detail View automatically.

Dialog Box Object:	Description:
`Text Input`	Gets text input from a user. • Constraint Checking - Allows you to check for valid text before continuing the program. • Automatic Timeout - Unless the user types a response in a specified period of time, the dialog box times out. • Password Masking - When selected, echoes an asterisk (*) for each character the user types. • Custom Buttons - You can customize the text on the button labels.

`Integer Input`	Gets integer input from a user. • Constraint Checking - Allows you to check for a valid value before continuing the program. • Automatic Timeout - Unless the user types a response in a specified period of time, the dialog box times out. • Password Masking - When selected, echoes an asterisk (*) for each character the user types. • Custom Buttons - You can customize the text on the button labels.
`Real Input`	Gets real input from a user. • Constraint Checking - Allows you to check for a valid value before continuing the program. • Automatic Timeout - Unless the user types a response in a specified period of time, the dialog box times out. • Password Masking - When selected, echoes an asterisk (*) for each character the user types. • Custom Buttons - You can customize the text on the button labels.
`Message Box`	Allows you to send your user some informational text and let them press a button in response. You can customize the text on the button labels and the symbol displayed on the dialog box.
`List Box`	Allows your user to select one or more items from a list of choices. You specify the option to let your user select one or multiple items. You can customize the text on the button labels.
`File Name Selection`	Allows your user to select a file name from a list of the files on the disk. You can then output the file name to the control pin of a `To File` object to programmatically open the file.

You change the appearance of the pop-up dialog box (colors, fonts, etc) via the Properties dialog box for each object.

I/O Enhancements



HP VEE 3.0 Changes to I/O Features:

1. `To/From Socket` - An Interprocess Communication (IPC) object (like `To/From Named Pipe`) that allows you to execute I/O transactions which send and receive data between processes on the same computer or over the LAN.
2. `ID Monitor` - A window within HP VEE that continuously updates the display with the state of selected instruments (by showing `Instrument Panels`).
3. `MultiDevice Direct I/O` - An object that allows you to perform Direct I/O to more than one instrument via separate transactions in one object.
4. `Interface Event` - Now supports RS-232 and you can add a `Timeout` control pin.

Other Changes:

- `Execute Program (PC)` - Allows you to specify a `Working Directory` and a `Run Style` (`Normal`, `Minimized`, or `Maximized`) for the external process you're running.

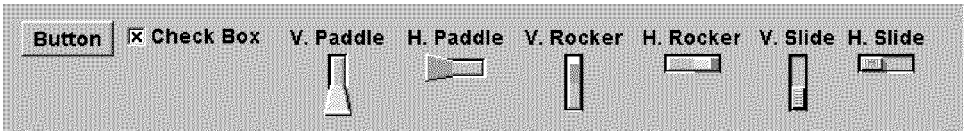
- `Interface Operations` - Now supports RS-232 and you can add a `Timeout` control pin.
- `Device Event` - Now you can add a `Timeout` control pin.
- Interpreted SCPI - You can talk to supported HP VXI register-based instruments via SCPI commands using backplane access. (HP VEE for Windows and HP VEE for UNIX Series 700 only)
- `EXECUTE LOCK/UNLOCK` *VXI Instrument* - New transactions are available on `Direct I/O` and `MultiDevice Direct I/O` objects to LOCK a VXI instrument accessed via the VXI backplane (to prevent another process from accessing the instrument) and UNLOCK the instrument when the critical section is complete.
- `EXECUTE LOCK/UNLOCK` *Interface* - New transactions are available on the `Interface Operations` object to LOCK and UNLOCK an HP-IB, Serial, or GPIO interface.
- Multi-dimensional READ BINBLOCK - Now you can read 2-dimensional arrays to get multi-channel data. The number of columns is the number of channels; the number of rows is the number of readings.
- `-idmonitor` - The new command line option, `-idmonitor`, starts a copy of HP VEE that contains only the `ID Monitor` and the `Bus I/O Monitor` so you can easily track the state of your instruments. You can also configure instruments from this (`idmonitor`) copy of HP VEE.
- `Direct I/O`, `Instrument Panel`, and `Component Driver` - Now you can add `Address` and `Timeout` control pins to programatically configure I/O devices.
- `Instrument Panel` - `Add Terminal by Component` ⟹ replaces `Add Terminal` ⟹.
- When you `Open` an HP VEE 2.0 program, the `Instrument Panel` object colors may be dithered but the instrument driver will still run as before. To make the colors look better and to slightly speed up the driver's execution speed, recompile the `*.id` files (if they are available) or install and use the newest versions of the `*.cid` files.
- Embedded PC Controller Support - HP VEE lets you directly access the VXI backplane on the EPC-7/8 VXI Controller. This feature was added in HP VEE for Windows version 2.3 (B.03.00). (HP VEE for Windows only)
- Direct VXI Backplane Support - HP VXLink support allows you to directly access the VXI backplane from HP VEE for Windows on external PCs.
- Serial - Now has hardware handshaking, adjustable receive buffer size, and higher baud rates. (HP VEE for Windows and HP VEE for UNIX Series 700 only)

Additional Changes From HP VEE 2.0 for UNIX:

- There is a new dialog box for `I/O ⟹ Instrument`. It combines the `I/O ⟹ Configure I/O` dialog box with the `I/O ⟹ Instrument` dialog box of previous versions.
- SICL/LAN - HP VEE now supports communication with instruments on HP-IB, VXI, GPIO, and RS-232 interfaces over a Local Area Network (LAN). HP VEE 3.0 also supports the HP E2050A LAN/HPIB Gateway. (Series 700 only)
- VEE to VEE RPC - The HP VEE client can import and delete multiple libraries within one HP VEE service via `Device ⟹ Function ⟹ Import Library` and `Delete Library`.
- `I/O ⟹ To/From DDE (PC)` and `I/O ⟹ Execute Program (PC)` are listed on the menu so you can develop HP VEE for Windows programs on other platforms. Note that you cannot execute these objects on HP VEE for UNIX.
- HP VEE for UNIX-specific features (such as `I/O ⟹ To/From Named Pipe`) are included on every platform and therefore include the suffix `(UNIX)`.

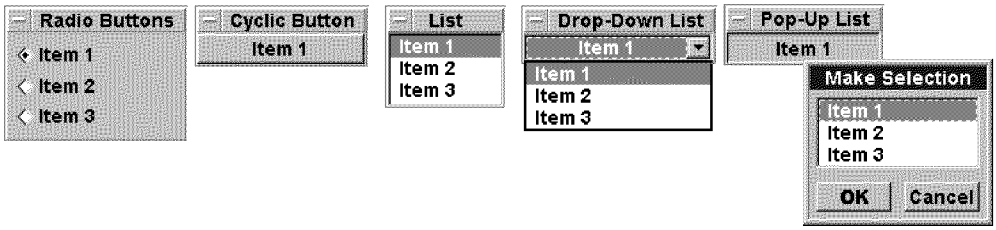
Please refer to *HP VEE Advanced Programming Techniques* for details on all these I/O features.

The `Data ⟹ Toggle` menu choice has been replaced by `Data ⟹ Toggle Control ⟹`, a cascading menu where you select the control object in the format of your choice:



Captions allow you to label a `Toggle Control` object without including the object's title bar. From the Properties dialog box, you can also select your own custom graphic images to represent `On (1)` and `Off (0)`:

The `Data ⟹ Enum` menu choice has been replaced by `Data ⟹ Selection Control ⟹`, a cascading menu where you select the control object in the format of your choice:



Other Changes:

- `Data` ⟹ objects that have the `Auto Execute` option now also have a `Wait for Input` option. When the `Wait for Input` check box is selected, the object does not execute until the user changes the selection or types a new value.
- Home and End in `Data` ⟹ `Constant` ⟹ objects move the cursor to the beginning and end of the line (use ↘ and Shift+↘ on UNIX).
- Ctrl+Home and Ctrl+End in `Data` ⟹ `Constant` ⟹ objects move the cursor to the top and bottom of a list (use Ctrl+↘ and Shift+Ctrl+↘ on UNIX).
- Now you can have password masking on `Data` ⟹ `Constant` ⟹ `Text` objects. Each character the user types is echoed with the asterisk (`*`) character.
- You cannot set `Auto Execute` for `Data` objects that contain an array. Any existing programs that have `Auto Execute` set for `Data` objects that contain an array, will run the same as in previous versions. But if you change the `Configuration` to `Scalar` and then back to `1D Array`, you won't be able to set `Auto Execute`.

Other Changes

Feature:	HP VEE 3.0 Changes:
`OK(Confirm)`	Now you have the option to assign keyboard function keys to an `OK` button. When the function key is pressed, the object operates. You also have the option to assign the Esc and/or Enter keys to an `OK` button. From the Panel View, when Esc or Enter is pressed, the object operates. On UNIX, the Return key is used (instead of Enter).
`OK (Confirm)` and `Start`	The text grays out when the button cannot be pressed. `Start` grays out after program has already started. `OK` grays out before it's executed (while it's waiting to be pressed), and after it's pressed.
`OK (Confirm)`, `Start`, and `Toggle Control`	These objects are used for operator input from their open view (instead of their icon view).
`Strip Chart`	You can now set the buffer size as `Infinite`, or `Finite` and specify the number of points.
`Note Pad` and type-in edit fields	When a program is running, clicking in one of these fields does not stop the program's execution.
`whichOS()` and `whichPlatform()`	These objects are now located under `Data` ⟹ `System Info` ⟹. These are new objects from HP VEE 2.0 for UNIX and allow you to branch to take advantage of operating system-specific features in a single cross-platform program.

`charToInt()` and `intToChar()`	These new objects convert between a character and its ASCII decimal value. They are located under `Math ⟹ String ⟹`.
`bitOr()` and `bitAnd()`	When these objects are input Real values, they output an Integer value. They are located under `Math ⟹ Bitwise ⟹`.
`Math ⟹ Formula`	Home and End move the cursor to the beginning or end of the formula equation without parsing the formula to check for correct syntax. Use ↘ and Shift+↘ on UNIX.
`Math ⟹` and `AdvMath ⟹`	The formulas in these objects are now editable.
`Math ⟹ +-*/`, `Math ⟹ Relational`, and `Math ⟹ Logical`	These object names have changed to include the parameter names. For example, `a + b` instead of `+`.
`-prname`	This command line option is no longer supported. It is not needed because of the printer properties set in `File ⟹ Edit Default Properties`.
`UserFunction`	Imported `UserFunctions` can be examined (but not changed) via `Edit ⟹ Edit UserFunction`.
`Compiled Function`	Now `short` and `int` are supported as parameter types. `short`, `int`, and `void` are supported as return types. `char*` is supported as a valid output parameter for all new `Call Function` objects. Existing HP VEE programs with `Call Function` objects, when opened in HP VEE 3.0, have a check box option to support `char*` as an output parameter. Pascal calling conventions are now supported (HP VEE for Windows only).

`Sequencer`	There is now a data input terminal called `ExecTrans`. This ping replaces the control pin by the same name. When a test name is input via the `ExecTrans` data pin, a log record propagates. Programs that used the control pin will run and save in the same way as before.

Additional Changes From HP VEE 2.0 for UNIX:

Feature:	HP VEE 3.0 Changes:
`Start`	Now `Start` is located at the top of the `Flow` menu.
`UserObject`	When you select `Make UserFunction`, you're prompted for a name if the current name is not a valid UserFunction name or has not been changed from "`UserObject`".
`UserFunction`	`UserFunction` names can contain underscore characters.

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