#### Introduction



*Feeling crowded*? Vern is the *Virtual Environment Resource Navigator*. Vern allows you to have many programs running at once with each occupying its own <u>Virtual Screen</u>. Vern displays a representation of each of the Virtual Screens in its selector, which, in total, we refer to as VernSpace. A mini window on the surface of the Vern selector is a representation of the actual program in VernSpace.

Running Vern results in a cleaner looking desktop and can actually speed up the look and feel of Windows. When a program is sitting in an area of VernSpace that is not currently active (i.e. visible), the Operating System will not waste time redrawing that application.

For example, after running Vern you could launch a Word processing program in one Virtual Screen, activate Vern and switch to the next Virtual Screen. Run a Spreadsheet program, switch to the next Vern cell and run a copy of your Internet Browser. The number of programs running is limited only by the amount of RAM in your computer. Vern's use of memory is minimal.

Vern can also be used in Multiple Monitor Computer Systems. If your computer has more than one physical monitor you can configure Vern to run a separate selector on each monitor, effectively multiplying the number of desktops on each display. See <u>Multiple Monitors</u>for details.

# **Changing Cells**

Changing Vern cells is easy. Activate Vern (hit the Vern activate <u>hotkey</u> or click on the Vern icon in the System Tray) and switch between cells by clicking on the destination screen. Any programs running in the current screen have now been displaced by the windows in the destination Virtual Screen.

Vern is capable of displaying dozens of virtual screens but you will probably want to limit the number to between 5 and 10, depending on your own taste. I prefer having a column of between 6 and 8 Vern cells on the right hand side of the screen.

If the <u>Auto Activate</u> option has been turned on, Vern will automatically switch to the currently active window. Clicking on a program button in the Windows task bar or using the Alt-TAB task switcher will automatically switch you to the virtual screen where your program is located. After closing or minimizing a program Windows always activates the next window in the active window list but that window may not be in the current desktop. Vern tries not to switch to another Virtual screen after closing or minimizing another program -- this can be annoying.

If you turn on the Ctrl-Alt Hotkey option you can switch to the next or previous Vern cell with Ctrl+Alt+Up, Ctrl+Alt+Down, Ctrl+Alt+Left or Ctrl+Alt+Right hotkeys.

#### **Moving or Sizing**

You can drag Vern to a new screen location either by turning on the caption in the Options menu or by double clicking on Vern (this toggles the display of the caption.) and dragging the program to a new location. If the <u>Auto Hide</u> option is turned on and you drag Vern to one of the four edges of the screen the program will hide at that location when it loses focus. To restore Vern, simply move your cursor over the area where Vern is hiding. Vern will not regain focus during a mouse over if the left or right mouse button is depressed. This functionality is necessary when, for example, you are scrolling a window and Vern is autohiding on the right side of the screen.

Resize Vern the same way you would resize any Windows <u>application</u> window. If the Ctrl key is depressed, you increase or decrease the size of the Vern cells when resizing, otherwise you add or remove cells on Vern selector -- this behaviour is toggled by the *Freeze Cell Count* option. If the <u>Proportional Resize</u> option is selected Vern will increase, or decrease the size of the individual Vern cells in proportion to the screen dimensions.

You can now position Vern on the desktop using the Dock menu in the Vern selector context menu. Right click on the selector and select the Dock menu item. You can align Vern along any of the screen edges. You can optionally have the selector aligned to the top or right of the edge or stretch the selector to fill the edge. Click the Float option to undock the selector. When the selector is docked the sizing borders and caption is removed. When the selector is undocked, these window properties are restored.

#### **Mini Windows**

The mini windows on the Vern selector are representations of the actual windows that are under Vern's control. You can display these mini windows with or without the 3D style borders -- see <u>show 3D Mini Windows</u> -- or with or without icons – see <u>show Mini Icons</u>. Dragging one of the mini windows to a new location on the Vern selector causes the actual window to also be moved to the same location in Vernspace.

When a mini window is dropped in a different cell it snaps to the same on screen location as its original screen unless the Ctrl key is depressed. The mini window will always be moved if dropped within the same cell.

Moving a mini window that is locked will cause it to snap back to the cell in which it is locked. To move a locked window hold down the Ctrl key or right click on the mini window and select Unlock from the context menu. The window can now be moved anywhere in Vernspace.

Click on a mini window, and the corresponding program window will be activated causing Vern to switch to the Virtual Screen where the program is located. If the *Passive Mini Windows* option is selected Vern just switches to its desktop without activating the program.

When the mouse cursor moves over top of a mini window you will see a small tooltip with the window title of the real window, if you have turned on the <u>Show Tooltips</u> option.

## **Gluing Windows**

When gluing a window Vern will **not** manage that window within Vernspace. Think of it as if you were gluing the window to the desktop - which is never moved. Gluing is in contrast to <u>locking</u> a window, which prevents the window from moving from a given Vern cell.

Some programs you may want to have displayed on every desktop, for example, a floating clock. The best solution is to Glue these programs to the desktop. If you Glue a program class (or title) Vern will no longer try to reposition that program when switching Virtual Screens.

If a program does weird things when you switch Vern cells, try gluing it to see if the problem stops.

To glue a window that is currently under Vern's control, open that window and right click on the Mini Window and select Glue ... from the context menu. You can choose to glue either the Window Class or part of the Window Title. For example, you could glue all windows with the text string **Desktop Clock**.

## **Locking Windows**

When you lock a window to a specific Vern cell, that window cannot be moved outside of the limits of the cell. In addition, if a locked program starts up in another Vern cell, it will automatically be repositioned in the cell in which it was previously locked.

To lock a window, right click on the mini window on the Vern selector and select Lock ... from the context menu. You can choose to lock either the Window Class or part of the Window Title. For example, you could lock all windows with the text string **Microsoft Word** to ensure that Word is always running in a specific cell.

Alternatively, you can override the lock temporarily by holding down the Ctrl key while dropping the mini-window. When you release the mini-window it will be locked in the cell in which it was dropped.

To unlock a locked window right click on the mini window and select Unlock from the context menu.

If you drag the actual window to a different cell, Vern always forces it back to its original cell. Unlock the window before attempting to move it to a new cell.

# Hotkeys

Hotkeys are set in the Hotkey tab of the Properties dialog box. Set a hotkey to raise Vern (**F12** by default). If you turn on the **Ctrl+Alt** hotkey you can switch to the next or previous Vern cell with Ctrl+Alt+Up, Ctrl+Alt+Down, Ctrl+Alt+Left or Ctrl+Alt+Right hotkeys.

## **Multiple Monitors**

Vern can be configured to work in multiple monitor setups. If you have more than one physical monitor connected to your computer Vern can be configured to work with the multiple monitors.

Select the Multiple Monitor button in the Options tab of the Properties dialog box and enter the number of monitors you have both horizontally and vertically. For example, if you have two monitors side by side your Multiple Monitor setup dialog would be configured as follows:

Multiple Monitor Settings			
Set the number of physical monitors here. Note that these settings apply only to systems with more than 1 physical monitor.			
2 Monitors wide			
1 Monitors high			
kCancel			

When you've configured the Multiple monitor setup Vern will display a separate selector in each of the monitors. This effectively gives you a separate multiple desktop on every monitor, rather than a single large virtual desktop over all monitors.

A multiple monitor API has been added to Win98 and is scheduled for inclusion in WinNT5. Vern 2.x cannot currently be used in this environment with multiple monitors. Development of Vern 3 with support for the new multiple monitor API is concurrent.

# **Advanced Topics**

#### Dead Windows and the timeOut Registry Hack

If a window is hanging or in a non-responsive state Vern will ignore it. To determine whether a window is dead, Vern sends a message to the window with a specified timeout. If the window does not respond within the time specified by the timeout Vern assumes that the window is dead or *extremely busy* (eg. Excel during a long recalc) and ignores the window until it starts to respond. The timeOut value in the registry is set to 1000ms by default. Note that if the timeout value is too small Vern could mistakenly assume that the window is hung. The *timeOut* value can be found in the registry under, HKCU\Software\One Guy Coding\Vern\2

The DWORD value timeOut should not be set to less than about 250. A value of 5000 would make Vern very sluggish when switching screens if a window was in a hung state.

#### Permanently Hide Windows

Individual windows can be hidden temporarily in the Vern Priorities tab. You can also hide windows permanently by using a registry *hack*. Run regedit and open the key, HKCU\Software\One Guy Coding\Vern\2

The two keys of interest under this key called hideClass and hideTitle.

Each key can contain a list of window classes or titles, respectively, to be hidden. You must also specify a len value. For example, to hide two programs containing the text "hide this title" and "this title too" respectively, under the **hideTitle** key you could enter,

len=2
item0="hide this title"
item1="this title too"

This feature is meant for SysAdmin's to hide windows that should not be altered by their users.

#### Multi-Monitor Control Registry Hacks

Vern can be configured to automatically squeeze windows to fit onto the display screen. Programs running in a multi-monitor setup can often end up spanning two or more displays. This can be prevented with the squeezeDiv and squeezeMul registry hacks, the default values for which are 4 and 3 respectively. With this setting Vern will multiply the width and height of the window by 3 and then divide the result by 4. To disable this feature set either value to 0. These values can be found in the registry under,

HKCU Software One Guy Coding Vern 2

# Vern Context Menu

Right clicking on Vern's caption bar opens the Vern context menu. The following items are on the menu; click on an item in this list to find out more about it's function.

Option Cell Dock About Help Exit Hide desktop Properties...

# **Options menu**

Right clicking on the Vern caption bar opens a context menu, choosing the **Options** item spawns a flyout menu. The various options are listed below; click on an item in this list to find out more about it's function.

<u>On top</u> Autohide Freeze cell count <u>No size</u> **Proportional** Auto activate Hide off screen Passive mini-windows Screen scrollRemember Tool tips Systray icon **Caption** Mini icons 3D mini windows Set wallpaper <u>Set color</u> Startup

# Cell menu

Right clicking on the Vern caption bar opens a context menu, choosing the **Cell** item spawns a flyout menu. The various Cell menu items are listed below; click on an item in this list to find out more about it's function.

Label... Bitmap... Color... Clear

### Dock menu

Position the Vern selector on the desktop using the Dock menu in the Vern selector context menu. You can align Vern along any of the screen edges. Optionally, the selector can be aligned to the top or right of the edge or stretched to fill the edge. Click the Float option to undock the selector. When the selector is docked the sizing borders and caption is removed. When the selector is undocked, these window properties are restored.

# Mini-window context menu

Right clicking on any mini window within Vernspace spawns a flyout menu showing mini window options. The various options are listed below; click on an item in this list to find out more about it's function.

Glue... Lock in cell... Send to back Minimize Priority... Close

# Help for specific controls

For help on a specific control in any of the Vern dialog boxes, click the question mark button on the dialog box caption bar and then click the control for which you want help. If help is available for that control it will either be displayed in a small popup window or the Vern help system will be opened and the topic will be displayed.

# **Keyboard navigation**

#### When Vern is active:

F1	This help file
Cursor Up	Move upward one cell. If Wrap is on you move to the bottom cell if moving up from the topmost position
Cursor Down	Move downward one cell
Cursor Left	Move left one cell
Cursor Right	Move right one cell
Ctrl	When dragging a locked mini-window holding the control key allows the mini-window to be moved.
Ctrl+H	Hides the desktop
Ctrl+L	Set the label for the current cell
Ctrl+C	Set the color for the current cell
Ctrl+B	Set the bitmap for the current cell
Ctrl+F1	Opens the About tab in the Vern Properties dialog
Alt+F4	Restores all programs to the current display and closes Vern
Ctrl+Shift+L	Dock left
Ctrl+Shift+R	Dock right
Ctrl+Shift+T	Dock top
Ctrl+Shift+B	Dock bottom
Ctrl+Shift+F	Undock (float) the selector.
Alt+Enter	Opens the Vern Properties dialog box
Ctrl+Shift+Alt+ S	Creates a system snapshot in c:\vernsnap.txt that can be useful for analysing problems concerning Vern's interaction with other programs.

## When Vern is Inactive:

Ctrl+Alt+Up	If the Ctrl+Alt+Cursor hotkeys have been enabled, activates Vern and moves to the next higher Vern cell.
Ctrl+Alt+Down	Activates Vern and moves to the next lower Vern cell.
Ctrl+Alt+Left	Activates Vern and moves left one cell.
Ctrl+Alt+Right	Activates Vern and moves right one cell.

# Registration

All shareware by One Guy Coding is covered by the **All In One Guy Coding Registration Code**, which is a fancy way of saying that if you register for one of my programs you are automatically registered for all other One Guy Coding Shareware.

#### **Credit Card Registration**

Registration by credit card costs 20\$ US currency. Credit Card <u>Registration</u> information is also available at my website http://www.cam.org/~oneguy.

#### Cheque, Cash or Money Order

If you want to pay by cheque, cash or money order the cost is \$20 US (20\$ Canadian funds for Canadian customers drawn on a Canadian bank.) Fill out this <u>form</u>, print it and send your cheque or money order, payable to **One Guy Coding**, to,

One Guy Coding 4121 rue St-Dominique #6 Montreal, Quebec Canada H2W 2A6

Be sure to include your return snailmail address or email address so I can send you a registration code. EMail, of course, is preferred.

#### **Registration Cost: Single, Multiple and Site Licenses**

License Pack	<u>Cost US \$</u>
Single License	20.00
Five User License	95.00
Ten User License	180.00
Twenty-five User License	450.00
Single Location Site License	1000.00
World Wide Site License	5000.00

# **Credit Card Registration**

### **Secure On-Line Registration**

I am using the Kagi Shareware Registration service to process my Credit Card orders. You can submit your Credit Card Registration for One Guy Coding shareware to them via eMail, FAX or regular postal mail.

Secure Online Credit Card Registrations can now be made at

http://order.kagi.com/?LV

Once you arrive at that link, be sure to select the Secure page, fill in the form, enter your credit card information and submit the request. I will then send you a registration code within two business days.

#### Credit Card Registration via FAX, Mail, etc

To register by Credit Card you use the register.exe program that may have been included with the Vern distribution (or any other One Guy Coding shareware application). Since all One Guy Coding applications are covered by one registration code (the so-called All in One Guy Coding Registration Code) any of my versions of register.exe will do. If you don't have the register.exe program you can download it from my site at

http://www.cam.org/~oneguy/Registration/register.zip. I can also attach the register.exe program and eMail it to you if you wish, just let me know via email at oneguy@cam.org.

The register.exe program prompts you for the necessary information for submitting your registration to kagi,

Registration Name eMail address Postal Address Credit Card (Visa, MasterCard or AmEx) info

This information is then encoded in a format suitable for sending securely via eMail, Fax or postal mail. The output can be copied to the clipboard (or saved to an ASCII file) and pasted into an email message addressed to sales@kagi.com or it can be printed, faxed or postal mailed.

The Register program was written by Greg Kochaniak http://www.nb.net/~gregko/winregis.htm).

# **Cheque or Money Order**

## **Registration Form for Cheque or Money Order**

Print this form and mail it along with your Cheque or Money Order payable to One Guy Coding at,

One Guy Coding 4121 rue St-Dominique #6 Montreal, Quebec Canada H2W 2A6

Registration Name Address

> City Country Email # of Copies Total

State/Province Zip/Postal Code

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#### http://www.cam.org/~oneguy.

The software is provided "AS IS" without warranty of any kind, either expressed or implied.

### About the One Guy

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One Guy Coding has been in operation since the spring of 1996 and is located in beautiful downtown Montreal, Quebec, Canada. One Guy Coding shareware includes the popular button launcher Blanch and the virtual desktop program Vern the Virtual Environment Resource Navigator. One Guy Coding also produces freeware such as the recently released NTP client Automachron (formerly netdate) and a Webster's dictionary client called WinWebster as well as a mouse based digitising program called mDig. Internet Home Page

http://www.cam.org/~oneguy

Normally your screen dimensions are limited by the resolution of your monitor, say 1024x768 pixels. A virtual screen represents an area of one screen width and one screen height and any program(s) that are running in that screen area. Vern allows you to have more than one screen area over which to distribute your programs. For example, if you have Vern arranged as 3 horizontal virtual screens, your total virtual screen area would be 3 times the screen width by one screen height, for a total virtual resolution of 3072x768 pixels.

Move the mouse cursor to one of the four edges (to resize horizontally or vertically) or to one of the window corners (to resize both horitontally and vertically). Once the cursor changes to a double headed arrow (normally), click and hold the left mouse button and drag until the desired size is reached.

# On top

Keep Vern on top of all other running programs when this option is selected. This option has little effect if Vern is auto hiding.

# Auto hide

If you turn this option on, you can have Vern hide against any of the four edges of the screen. Turn on the option and drag Vern to the desired edge (you must tuck the program up against the edge.) When Vern loses focus it will hide against that edge. It can be restored simply by moving the cursor over the area where Vern is hiding. If the left or right mouse button is depressed Vern ignores the movement of the mouse, this is especially useful when scrolling on the right side of the screen with Vern auto hiding on the same edge.

The Show Delay and Hide Delay can be set in the Options tab of the properties dialog box. The Show Delay specifies the time in milliseconds (1sec == 1000ms) before Vern is activated when autohiding. The Hide Delay is the amount of time that Vern stays open after it has been activated, at which point Vern checks to see whether the mouse cursor is currently in the Vern selector. If not, Vern hides.

## Freeze cell count

This option controls whether cells are added when resizing Vern or whether the cell size increases or decreases. For example, if this option is selected and you resize Vern the size of the cell is altered but the number of cells on the selector remains the same. This action can always be toggled by holding down the Ctrl key while resizing Vern.

# No size

When selected, Vern removes the sizing border which prevents the program from being resized. Use this option after settling on a configuration for the number of cells and the size of the cells.

# Proportional

When resizing Vern this option forces the Vern cells to retain the same proportional dimensions as the screen dimension.

## Auto activate

Most users prefer working with Vern with the auto activate option turned on. If Auto Activate is on, Vern automatically switches to programs running in other virtual screens. This occurs regardless of whether the program is activated from the Windows Task bar or the Alt-TAB task switching hotkey or automagically by the OS itself.

If this option were off, you would have to switch to the cell manually by activating Vern and clicking on the cell containing the program you want to use.

## Hide off screen

If set, Vern hides windows that are not currently visible. When you switch to the Vern cell in which the hidden windows reside they are redisplayed. Note that this the use of this option removes the program's icon from the Windows task bar and the list of available applications in the Alt-Tab task list. The *only* way to switch to a program that isn't in the current desktop is with the Vern desktop selector.

This option is used most often to reduce the amount of clutter on the windows task bar.

Vern now keeps track of all windows that have been hidden so that, heaven help us, if Vern were to crash those hidden windows will be restored when Vern starts up again. If only Explorer would do the same with Systray icons.

# Passive mini windows

Normally when you click on a mini-window Vern switches to the new vern cell and activates the real window associated with it. If this option is set Vern does not activate the real window after switching to the new vern screen.

## Screen scroll

Screen Scroll allows you to switch from the current Vern cell by dragging the actual program from the current desktop in the direction of another virtual screen. When Vern detects that a program is being moved the cell index will be increased or decreased, depending on the direction, and the program will be moved into the new virtual screen.

For hardware configurations that take advantage of Vern's Multiple Monitor capabilities this option does not work – it is disabled

# Remember

When the remember option is selected Vern will restore a minimized window to the same desktop in which it was originally minimized. Otherwise the program is restored to the current desktop.

# Caption

This option toggles the caption bar on and off. The caption bar is well suited for use when the cell labels have been set.

# **Tool tips**

This option toggles the display of the little flyout windows when the mouse cursor passes over one of the Mini Windows on Vern's surface. The Tool Tips display the current window text for the window represented by the mini window.

## Systray icon

This option toggles the display of the Vern icon in the SysTray of the Windows task bar. Left click on the SysTray icon to raise Vern or right click to open the context menu.

# 3D mini windows

Toggles the display of the 3d style borders on the mini windows.

#### Mini icons

This option toggles the display of the icons in the mini windows. If this option is turned off the window text is displayed on the surface of the Mini Window.

#### Set wallpaper

If this value is set Vern will set the background bitmap according to the settings that you have selected for the current cell. See the <u>Cell menu itemidh\_cells\_menu</u> for details.

# Set color

If this value is set Vern will set the desktop background color according to the settings that have been made for each cell in the <u>Cell</u> menu item.

## Startup

Creates a shortcut to the currently running Vern executable called Vern.Ink in the users Startup folder.

If a Vern shortcut was previously created with a name other than Vern, it should be manually deleted before this option is used.

## Autohide delay

This is the amount of time that Vern takes to reappear on a mouseover. The value is in thousands of a second, so a setting 1000ms is equal to 1 second.

# About

Opens the properties dialog and the Vern About dialog.

# Help

Opens the Vern help system (this file.)

# Exit

Restores all windows to the visible display and closes Vern.

#### Hide/Show desktop

This option is a toggle that hides or shows the Explorer desktop. When the desktop is hidden the icons or, with the IE4 Active Desktop installed the desktop Active content are hidden from view. This removes the clutter from the desktop and improves the response of desktop repaints especially when using the Set Color or Set Wallpaper options which tend to be sluggish otherwise, especially in Win95, or when the IE4 Active Desktop is installed.

The Ctrl-H accelerator can be used to hide the desktop. This only works if the selector is activated. Note that if you click on a mini-window and hit Ctrl-H the accelerator keystroke is sent to the program represented by the mini-window and not to the Vern selector -- unless you are using the **Passive Mini-Window** option.

This option is now set on a per cell basis. That is, you can choose to have the desktop hidden only on certain cells.

#### **Properties**

This item opens the Vern properties dialog. For help on a specific control in the properties dialog, click the question mark button on the Properties dialog caption bar and then click on the control for which you want help. If help is available for that control it will either be displayed in a small popup window.

Label...

Opens the Cell Label dialog box in which you may specify a label for any or all of the cells. This cell label can also be used as an accelerator for switching cells. For example, if you have 5 cells and you've labelled them as A, B, C, D and E then typing C will move you to the 3rd virtual screen.

#### Bitmap...

Opens the Cell Bitmap dialog box in which you may specify a bitmap file (BMP format) that will be displayed as the background for that cell. Furthermore, if you've also turned on the Set Wallpaper option then the bitmap will be used as your wallpaper whenever you switch to that Vern cell.

#### Color...

Opens the Cell Color dialog box in which you may set the color for the Vern cell. If the Set Color option is also set this color will also be used for the desktop color when you switch to this Vern cell.

# Clear...

Clears all setting for the cell. This includes the Label, Bitmap and Color settings, if any.

## Glue

Click this item to glues the window represented by the selected mini-window to the desktop. Selecting this item causes the mini-window to disappear.

#### Lock in cell

Click this item to Lock the selected window to its current Vern cell. The window always stays in this cell when it is locked. Dragging the mini-window with the Ctrl key depressed overrides the cell lock.

# Send to back

Move the window to the bottom of the z-order (underneath all other programs).

## Minimize

Minimizes the currently selected window.

#### Priority...

Priority Idle, Priority Normal and Priority High. Any of these options changes the system priority for the program associated with the mini-window. The higher the priority the more CPU time is allotted to the program.

# Close

Closes the window. It is possible that the window will ignore this request if it does not process the WM\_CLOSE message.