

Product Name
Dated 10/25/99
Sample Testing Report
Visual Basic Database Product
November 5, 1999

Summary:

There were a number of "Run-time" errors when performing various queries, and there were also problems with the viewing and printing of the HTML text pages.

We ran into a few problems with the installation, most notably the missing information for the "Start In" property field for the shortcut. On one machine, we could not run the program due to a problem initializing a DLL file. Also, there was no help information to be found anywhere in the program.

Testing Personnel:

Kerry Kohr, Robert Maloney, John Rudzianski, Reed Payne, and Glenn Polin.

SAMPLE REPORT: The product name, publisher name and other sensitive information have been removed and replaced with the words "PRODUCT NAME", PUBLISHER, or *** as appropriate. Other information may have been removed to protect client confidentiality.**

Hardware Used:

The following machines were used to test the software:

Windows

| Make/Model | Processor | Clock Speed | RAM | Windows Version |
|-------------------|------------------|--------------------|------------|------------------------|
| HP Brio BAx | Pentium II | 400 MHz | 64 Mb | Windows NT 4.0 |
| Midwest Micro | Pentium II | 233 MHz | 64 Mb | Windows NT 4.0 |
| Midwest Micro | Pentium MMX | 200 MHz | 32 Mb | Windows NT 4.0 |
| Midwest Micro | Pentium III | 450 MHz | 64 Mb | Windows 98 SE |
| Dell | Pentium II | 400 MHz | 64 Mb | Windows 98 |
| Gateway 2000 | Pentium II | 350 MHz | 64 Mb | Windows 98 |
| UMAX | AMD K6-2 | 350 MHz | 64 Mb | Windows 98 |
| Midwest Micro | Pentium II | 266 MHz | 64 Mb | Windows 98 SE |
| Midwest Micro | Pentium | 166 MHz | 32 Mb | Windows 98 SE |
| Midwest Micro | Pentium | 133 MHz | 32 Mb | Windows 98 SE |
| Swan | Pentium | 133 MHz | 32 Mb | Windows 98 SE |
| HP Brio BA | Celeron | 333 MHz | 32 Mb | Windows 95 |
| HP Vectra VE | Celeron | 333 MHz | 32 Mb | Windows 95 |
| Midwest Micro | Pentium II | 233 MHz | 64 Mb | Windows 95 |
| IBM Aptiva | Pentium MMX | 200 MHz | 32 Mb | Windows 95 |
| IBM PC300 GL | Pentium MMX | 166 MHz | 32 Mb | Windows 95 |
| HP Vectra VL | Pentium | 100 MHz | 32 Mb | Windows 95 |

Procedures:

We did a complete check of all indicators using different combinations of countries and years in the resolution settings of 640x480, 800x600, 1024x768, and 1280x1024 using 8-bit, 16-bit, 24-bit, and 32-bit color palettes. We also did a complete check of all of the links found on the HTML pages and briefly viewed each page. We printed out various reports including query reports, line and bar graphs, and HTML pages, where possible. Although we have noted content errors where we noticed them, we focused mainly on the functionality of the program and its compatibility with different system configurations.

Documentation:

- (1) There was no “readme” file on the CD that would include installation and system requirements.
- (2) There aren’t any help files that would normally be accessed from the menu bar either. You may possibly want to do this in HTML.
- (3) There is no copyright information on the opening splash screen. We suggest the inclusion of an “About this Program” on the menu bar as this would be a good place for the copyright information.
- (4) We found a copyright and disclaimer links on the HTML pages, but they go out onto the Internet to access a page on the Publisher Name Web site to display this information. We would normally expect copyright information to be contained on the product. Besides not all customers will have Web access.

Installation:

- (1) The “Welcome” screen mentions that this will install the “PRODUCT NAME Install onto your computer.” This should probably say that PRODUCT NAME will be installed onto your computer.

- (2) Whenever we tried to install the setup file from the CD-ROM, we would get the following message:

“The file “UNWISE.EXE” could not be opened. Please check that your disk is not full, that you have access to the destination directory. Access is denied.”

We figured that the program was trying to be expanded to the same directory that it was run from and, of course, could not be added to the CD. Therefore, we copied the file to the hard drive and found that we could run the install from there.

- (3) When we first ran the program, we received various errors indicating that it was having problems linking with its data files. We later realized that the "Start In" field for the shortcut was blank when we viewed the properties from the Start Menu icon. We modified this by entering the path for the PRODUCT NAME application directory into that field and we could then use the program without getting any of these data linking errors. Also, if we had installed to the default location ("C:\Program Files\PRODUCT NAME"), then the use of long files requires the path to be in quotes.

- (4) On a few machines, some of the files were in use and we had to skip over them during the install. The files that we noticed were MSVCRT.DLL, MSVCRT20.DLL, MSVCRT40.DLL and OLEAUT32.DLL. Skipping these files did not seem to effect the running of the program, but it did affect the IBM Aptiva, which was running Windows 95.

On this system, when we launched the program, we got the following message:

"The file 'OLEAUT32.DLL' is out of date. This program requires a newer version."

We then manually shut down all other programs from the Task Manager except for EXPLORER and SYSTRAY and reinstalled PRODUCT NAME. We still got a message for MSCVRT.DLL, but OLEAUT32.DLL was added correctly and we were then able to run the software. You may want to suggest to the user in a readme file that no other programs including background utilities, such as virus scan software, should be running when installing this product.

- (5) The volume name of the CD is "9910221230" and should be changed to something more specific such as "PRODUCT NAME CD".
- (6) The uninstaller "UNWISE.EXE" cannot find the file INSTALL.LOG when we ran it. We also tried to use Add/Remove programs from the Control Panel and also got a message that it could not find the INSTALL.LOG file. After doing a search, we found this file on the root of the C: Drive, even when installing to another folder or another drive. We were able to run UNWISE.EXE and browse to find the INSTALL.LOG. The uninstaller removed all parts of the application except for the UNWISE.EXE file itself.

Operational Problems:

- (1) On one Windows 95 machine, we got the following message when we launched the program:

"Cannot create temporary database: C:\ProgramFiles\PRODUCT NAME\PRODUCT NAMEworkingDB.mdb Error#3447 'The Jet/VBA file (VBAJET.DLL for 16-bit versions, or VBAJET32.DLL for 32-bit versions) failed to initialize when called. Try reinstalling the application that returned the error.' Program cannot continue."

We deleted the PRODUCT NAME folder and reinstalled, but continued to get the same message, even after restarting the machine.

We searched for these files and found VBAJET.DLL and VBAJET32.DLL in the WINDOWS\SYSTEM folder. We renamed these two files and then reinstalled

PRODUCT NAME again. It added another VBAJET32.DLL, but this one had an older date than the one that we had renamed (6-18-98 to 1-22-99). This had no effect and running the program still gave us the same error message as before. We could not run PRODUCT NAME on this machine.

- (2) On most of the machines, when we tried to save a query as a dBase III file, a dBase 5 file or a text file, we got the message "Can't create test.dbf (or test.txt). Couldn't find installable ISAM." We were able to save files in this format if they had a version of Microsoft Access 97 installed.
- (3) On all of our systems except for two, whenever we clicked on the "MSGraph" button from the line graph window we got the following Run-time error:

"Run-time error '336' Component not correctly registered"

This button for 'MSGraph' did work on a Gateway 2000 and Dell system that had Office '97 preinstalled. MSGraph referred to a Graph8 executable that appears to be part of Microsoft Office97. It would appear that this program would have to be installed prior to using PRODUCT NAME in order to use this part.

It should be noted in the documentation that MSGraph is needed to view these graphs. It would also be best if the error message shown above was replaced by one that explained that MSGraph needs to be installed. Otherwise the button should be removed. Can you test for the presence of the executable and dim the button if it is not there?

- (4) Every time we double-clicked on a "view text" section to launch the Web browser for the HTML sections the CleanSweep Installation monitor was launched. This utility is started if a program such as SETUP.EXE is launched and displays a dialog box asking if you want to monitor the installation that was just started.
- (5) On one occasion when we had four query windows open and clicked on the "Output" tab we received the report table error seen in the following screen capture:



Immediately following this message we got a "Run-time error '2147192189 (80047283)' Database file not found." This did not replicate.

- (6) After doing any query using indicators 12 or 13, if we clicked on the "copy to clipboard" button next to the "columns" button, we got the following error and the program exited.:

"PRODUCT NAME01mdi - Run-time error '381' Subscript out of range"

- (7) Some of the check boxes do not display correctly one Windows 98 machine that uses a 3dfx Voodoo Banshee video adapter. On the country selection screen we got the correct check boxes to select all of the countries or deselect all of them, but on the year selection screen as well as on the parameters screen after doing a query, the boxes are black. This only occurred on this machine, and this was the only machine with a video card using a 3dfx chipset. We restarted the machine and also tested at different resolutions and at different color palette settings with no difference.
- (8) When doing a sort on one of the columns from a query result using either the 3rd or 13th indicator, the cursor turned into an hourglass, but did not return to a normal cursor when the sort was completed.
- (9) We could not sort on the 'Age' column in all but one indicator query. In all but one the header does not change and no sorting is done. However, in the one indicator (Indicator 8a - Age), the header changes, the rows change, but they are not correctly sorted by age. We also found that we could not sort on the columns listed below:

Indicator 8a - Unemployment Rate %
Indicator 8b - Age (we could sort on unemployment rate %)
Indicator 18a - Population % below US\$1
Indicator 18a - Urban %

- (10) We could not click in the boxes to select any of the countries listed below:

Melanesia - Fiji, Papua New Guinea, Solomon Islands
Micronesia - Guam, Northern Mariana Islands, Pacific Islands
Other Melanesia - New Caledonia
Polynesia - American Samoa, Cook Islands, French Polynesia, Samoa, Tonga

These countries could not be manually clicked on, but were checked when we clicked on the Select All box at the top. The reverse is true as well; they could not be manually deselected once Select All was clicked on.

- (11) The product was occasionally unstable when dealing with multiple queries.
- (a) After opening and closing various tables, we opened one more and got this message: "Err #3048 Can't open any more databases. Program will end (NewPRODUCT NAME)." The program then exited to the desktop and we had to restart. Sometime later, while doing 8 successive queries and having each table come up, we got "Err #3104" with the same error message as before.

In both instances, after the program exited, we got a message that the program had caused an “invalid page fault in module MSCHRT20.OCX at 0157:2851a95b.” However, we had not restarted the system after the first error and accompanying invalid page fault.

- (b) A couple of other times that we had done multiple queries(at least 10), we got "Err #50003 Unexpected Error. Program will end (NewPRODUCT NAME)" and the program exited. In this instance there was no invalid page fault.

These were isolated instances. In most cases when the product reached a limit in the number of queries, it gave the user the option of closing queries and did not require restarting the program or the computer.

- (12) There were a few instances where performing a query or when opening a saved query result in the following Run-time error:

“Run-time error #3078 The Microsoft Jet database engine cannot find the input table or query 'PRODUCT NAMEXX ColumnHeaders',”
(XX in the example above was the number of the indicator.)

This usually occurred while in the French or Spanish versions, but in at least one instance would replicate in English. The following items describe examples of instances where we got this error:

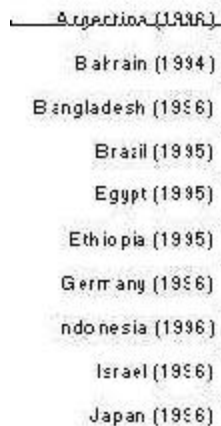
- (a) We saved a query titled 16a in English. When attempting to open the saved query in Spanish, we received the Run-time error. This also happened if we saved the query in English and opened it in French.
 - (b) In English, when we selected the USSR avant 9.91, the indicators A1, A2, and A3 for the years 95-98 and clicked on View, we received the Run-time error. We click on OK and are forced out of the product and to the desktop. We also received this same error doing this query in the French version.
 - (c) In French, we queried indicators 8a and 11 for the years 1995-1998 and received the Run-time error 3078.
- (13) There were a number of links that did not work on the HTML pages. These were as follows:

PRODUCT NAME 7 – Introduction
PRODUCT NAME 17 - Use of the Indicator
PRODUCT NAME 17 - Definitions and Source
PRODUCT NAME 17 - Limitations to compatibility
Chapter 8 – Almost all of the links on this page do not work

Also, the links for Appendix A, Appendix E, and Appendix F did not work from the Table of Contents. We checked the HTMLFILES folder and noticed that these files were indeed missing.

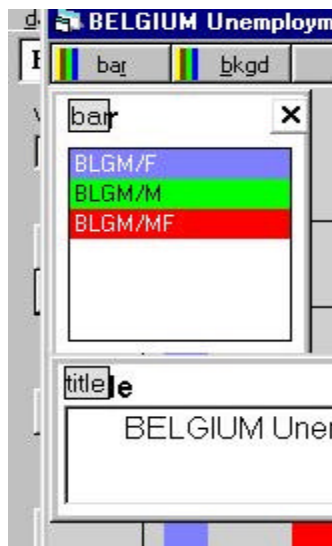
- (14) As we navigated through the HTML files, we noticed that some of the links would show up as "used" already, that is, a different color as if clicked on and visited already. Usually these were the last three links on each page. This occurred sporadically on all machines tested.
- (15) We had the following printing problems:
 - a) When printing out the HTML files, the graphs and pictures were sometimes cut in half across two pages. They were not entirely pushed to the next page as would be expected (see Sample Printout 1a-1e).
 - b) The headings on some of the HTML pages get cut off (see Sample Printout 2a and 2b).
 - c) Some of the graph headings from the queries also get cut off if the graph windows is not fully open. Both 17a and 18b were cut off on-screen as well and there may be others. This occurred on a machine at 640x480 as well as one at 1027 by 768.
 - d) One of the reports that we printed out has page 1 of 2 in the lower right, but only one page was actually printed (see Sample Printout 3)
- (16) There was an instance where the lines on a graph were not completely drawn in. We did a query for PRODUCT NAME A1 with Japan, Australia, and the United States as the chosen countries. When we use the life expectancy parameter to generate a line graph the line for the USA looked complete, Japan's was half, and Australia's only linked the last three points. This did not happen on all systems, but we did replicate it on two using this graph.

- (17) The title for Figure 3b in “PRODUCT NAME 3. Status in employment” is very blurred and has the letters cut off on the bottom. Actually, all of the graphs that are in the HTML files appear blurry, as well as the legends and axis headings. Another example of this can be seen in figure 4f in “PRODUCT NAME 4. Employment by sector”, as shown in the screen capture below, the country names are very fragmented and difficult to read.



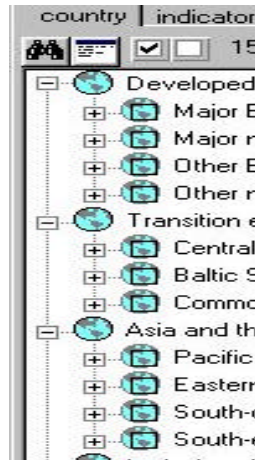
Argentina (1996)
Bahrain (1994)
Bangladesh (1996)
Brazil (1995)
Egypt (1995)
Ethiopia (1995)
Germany (1996)
Indonesia (1996)
Israel (1996)
Japan (1996)

- (18) The bar and title buttons depicted in the following screen capture are not properly placed. It appears that the gray button is overlapping, but not totally covered by the words “title” or “bar.”



- (19) In the box that is brought up by using the 'Symbols' button on the line graph window, frequently has the title "symbo". This happens in certain indicators, but not all of them and did not happen to the same extent on all systems. It did seem to happen reliably with the first indicator.

- (20) The sub headings for the selection of the country, as seen in the following screen capture, have the "globes" overlaid with boxes. We also noted these overlays on the sub-sub-headings. Is this correct?

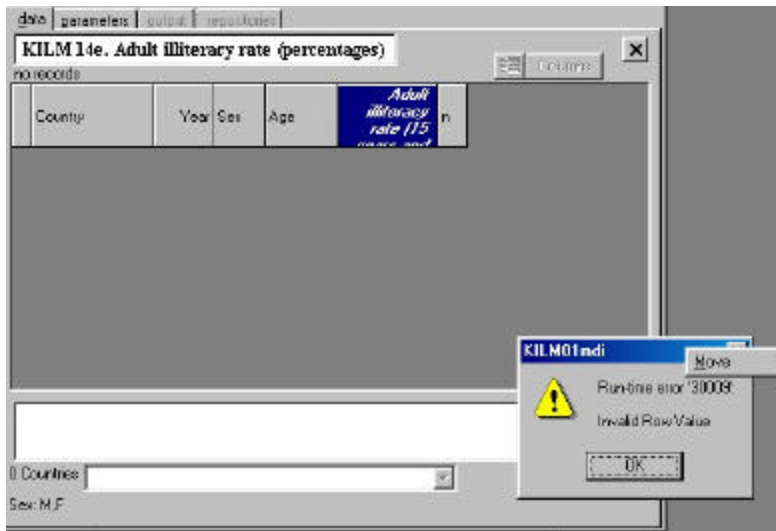


- (21) Appendix C is the only link that gets highlighted in red when the cursor is placed over it in the View Text window.
- (22) We did a query using indicator PRODUCT NAME1 and chose 5 European Developed Countries for years 1981, 1983, 1985, 1987 and 1989. From the data that was presented, we created a line graph that only showed the key; no graph was shown. We had to shrink the key down to make the graph visible. This also occurred on other machines in different resolutions when the key has a lot of symbols shown. We aren't sure users will get this. It would be better if the graph were visible and it had to be shrunk down to see the key, not the other way around.
- (23) After doing a query using Indicator 5, we noticed that all of the tabs have keyboard shortcuts except for "notes".
- (24) The key combination 'CTRL-Q' can be used to close a query window, but becomes disabled once a sort is done on one of the columns. The user must then click on a tab to another window before these keys will become active again.
- (25) Three times while closing the program using the 'X' button (the "close button) in the upper right, we got the message that "PRODUCT NAME01MDI caused a invalid page fault in module KERNEL32.DLL."
- (26) On one occasion in Windows 95 we got the following error when opening the program: "Path/file access error. Error #75. Program can not continue." (Screen Capture deleted). This did not replicate.

- (27) When we attempted to do a number of queries at one time, we got the message "Err#7 Out of Memory. Too many windows open. Close some windows (NewPRODUCT NAME)." This occurred on two machines that had 64Mb of RAM in them. Given the amount of RAM on these systems we thought that it was odd that this would occur when only about 10 windows of data are created.
- (28) The illustration below shows an overwrite in the left edge of the window which lets you can change the title of your report.



- (29) Using the Send feature for the reports attaches a file to the e-mail called "untitled.chr" with the report contents. If you can, you should change the default name and extension. Nothing I know of owns the "chr" extension, so nothing knows how to open the report until you change its name.
- (30) See the row value error illustration below. This did not immediately replicate. The error happened when I clicked on the column to sort in a "no data" situation. Upon replication, the column did not try to sort when there was no data.



Interface and Other Issues:

- (1) The video setting of 640x480 results in some Windows items being hidden from view. We suggest the minimum setting for this product be 800 x 600.
- (2) The Data and Query windows can be pushed up under the menu bar. When pushed up too far, the window's title bar cannot be clicked on and therefore cannot be moved.

- (3) When we then saved the reports as a TXT file, we got a notice that "Excel 97 Spreadsheets created : [test.TXT], [testFields.TXT], [testCodes.TXT] Created in [C:\Program Files\PRODUCT NAME]." Was it correct in saying that Excel Spreadsheets were created when text files were created instead?
- (4) When you open a country subsection, the program immediately selects the country that is on the same level as your mouse cursor without you having clicked on it. This could be very awkward.
- (5) On the line graph window there are buttons across the top. We could click on 'line' and change the color of the graph lines, click on 'bkgd' and change the color of the background, and click on 'title' and change the text of the title. But when we click on 'symbols', we are shown the symbols being used and cannot change or switch them. Is this correct?
- (6) There is a hidden column to the left of the country that is closed to begin with, but can be opened by pulling on the side of the column to the right. It appears that there are country codes in this newly found column. Are these necessary to have in the table?
- (7) The graph feature starts repeating the same colors for different countries after it reaches a certain number of parameters. This makes it harder to pick out certain information. Wouldn't it be possible to a larger palette to choose colors from?

As has been noted the HTML pages open in separate browser windows, which will use more system resources. You may want to have one View Text link from the PRODUCT NAME program that opens a single HTML Contents page from which the various sections of the book can be accessed in order to avoid multiple browser windows.

- (8) We did a query for PRODUCT NAME 17a using the country Greece and a few years. The last column on the table has no data in it whatsoever. In cases like this, could it be possible to not show this column at first and have the opportunity to add it from the columns menu if the user so desires? This also occurred when we selected all the countries of Major Europe.
- (9) Afghanistan is spelled incorrectly in Figure 14c.
- (10) For the table for PRODUCT NAME A2, the column headers at the end all have enrollment misspelled as "enrolment".
- (11) Two of the columns in Indicator 11 have the heading "Level?". Is this correct?

- (12) The button for List Selected Countries on the Main tool bar does not have a mouse-activated rollover tag if no countries are selected. It only becomes “active” when one or more countries are selected.
- (13) It would be helpful if the Query windows could be tiled so that the user could easily compare two or three Query results.
- (14) You had indicated in your documentation sent to us that there were two indicators (16b and 18b) where years are not included or selection is not meaningful. We think you should somehow provide a message, at least the first time the user makes the selection. We spent some time confused about 18b, and why we were getting different years than the ones we chose. We wonder if users won't be confused as well.
- (15) It would be desirable if a query window knew it needed to be refreshed and either did it automatically, or offered the user a dialog asking if he wants to refresh the window with the new parameters he's chosen. Generally, we expected it to refresh automatically but since it may be time consuming on older machines, offering the user a choice is a good idea.
- (16) With regard to the contents of the reports sent by the “Send” feature. The report title, indicator name and other headings are repeated on each line that is sent out. See the short example of two lines from a report below (deleted). Wouldn't it be better to output the headings once, and not include them in every line.
- (17) When you select all countries, it says there are 251 countries, but whatever report you do, the number of countries with data and the countries without data always add up to 220. Which is correct?
- (18) It seems like some of the columns sort and some of them don't. For example, the illiteracy data column itself sorts in Query 6, but the year and the sex column don't sort. We expect that this is because year and sex are not numeric, but wouldn't you want to get, for example, all the 1992 data together in the table, followed by the other years, by sorting on date, even though the date is really an alpha field? Why restrict it to numeric fields?
- (19) However many decimal places for data you decide to show, you should show them consistently. Right now there are times when you show zero decimal places, one decimal place and 10 or more decimal places.

First of all, this is an alignment issue. Numbers with ".0" such as 51.0, are being displayed as 51, and are not in alignment with the other numbers in their column. It would look a lot better and be less confusing if they were aligned. The way it is now, it almost looks like a data error, as if there were digits missing, for example,

on the three U.S. numbers in the "Value Added per person" column (the second column).

| | | | | | |
|---------------|------|---------|-------|------|-------|
| France | 1982 | 38293.4 | 103.9 | 24.4 | 110.3 |
| France | 1983 | 38737.2 | 105.1 | 24.9 | 112.2 |
| Belgium | 1983 | 38798.8 | 105.3 | 23.9 | 105 |
| United States | 1982 | 41213.1 | 100.4 | 25.9 | 101.6 |
| United States | 1981 | 41676 | 101.6 | 26 | 101.9 |
| United States | 1983 | 42265.5 | 103 | 26.3 | 103 |

Second of all, this is a credibility issue. Look at the data in the illustration below for a query on PRODUCT NAME 17a. The first two numbers are for France, the second is for Belgium, and the last three are for the U.S. There are twelve decimal places displayed. The data can't really be that accurate! Next, notice that on the three U.S. numbers, the bottom two are similar and less than 1. The top U.S. number is supposedly for U.S. 1982, and is radically different from the other two. As it turns out, if you make the columns wider, you see the rest of the number and the discrepancy is explained. But because of the extremely large number of decimal places some users will be confused. By making the number of decimal places small and consistent, you will avoid this confusion.

- (20) When you click on columns for sorting and the font is changed to italic, sometimes the column width is no longer able to hold the entire legend and is cut off.
- (21) In the Notes window, are users going to know the meaning of all the abbreviations/acronyms? There were no definitions or notes for many of the entries in the notes window labeled "Cur.", such as LABORSTA and OECDNA. Will all your users know these are the names of Repositories?
- (22) When we run queries on 14d, which is supposed to be ages 25-29, we get data back mostly for the age cohort, 25-34. Is this what you want?
- (23) We were unclear what the "b" column for "break in series" meant or was useful for. Will users understand this?
- (24) Start with all the world regions closed. On the country tree, right click on Latin America and the Caribbean. The display says 46 countries selected. Now click on the "+" sign to open it up. The number changes to 45 and the Bahamas is not selected. You may find its Antigua or some other country near the top of the list. Somehow, the click on the "+" sign is being interpreted as a click to turn off a country.

- (25) For the Bar Graph and the line graph: the text above the choice indicates you are choosing what goes on the "y axis." Don't you mean "x axis." For example, if you choose "Sex" the groups "M", "F" and "MF" show up on the x axis.
- (26) On your export saving of a query, you should probably provide a default name like "Product Name12" if dealing with that query. Right now there is no default name.