Documentation for Cyberspace Crossword Puzzle and Cyberspace Cruiser™

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Installation

Just copy the 3dxwd.exe file to a directory on your hard disk. You can install a program manager icon in the usual manner. The run-time dynamic link library, vbrun300.dll, must be in your DOS path or in your 3dxwd.exe directory. Your Windows/System directory is a good place to put all your .dll files. Vbrun300.dll (vbrun3.zip) is available from CompuServe WinShare forum.

Features

A three dimensional crossword puzzle is difficult to do on paper. This new game type is made possible by the *CyberSpace Cruiser* engine which lets a user maneuver through 3d space to see all sides of the puzzle structure. When you get in range of the puzzle structure, start play by clicking the "Start Puzzle" button, and simply click on a cell and key in a letter. Clues are shown (as applicable) in the text box in the lower right corner of the window. The first level is easy, and when it is correct, the next level (much more interesting) will be displayed automatically. Save your game to continue where you left off, if you don't finish the whole thing right away.

An "about face" button lets you turn around to look behind you. If you double click on an object, the viewport pans to move the object to the center of the viewport. Use the "fine increments" buttons to step one CLU (cyberspace linear unit) at a time for data storage and retrieval.

Performance

Every time you change your angle of view or position in cyberspace, *CyberSpace Cruiser* must remap the visible objects in cyberspace to your viewport. Doing this requires quite a few calculations. As many of these are performed using integer arithmetic as possible, but many of the essential computations use floating point math. If the performance of *CyberSpace Cruiser* seems slow (more that three seconds on average to update), adding a math coprocessor to your system can help significantly. A fast 486 will update the viewport in less than a second. To measure your system's performance, check the "Measure Elapsed Time" option in the "Options" menu. Each time you move your viewpoint, the time to update the display will be shown just above the clue text window.

On-line Help

The help topics give more details on using *CyberSpace Cruiser* and playing *Cyberspace Crossword*. The text window above the cyberspace viewport also provides instructions for some features. If you get flatlined there is no help for you. You'll have to exit and start over.

Cyberspace Crossword is Free
There is no charge for using this program for as long as you like. However, the intellectual property rights to this software remain with **Ivory Tower Software**. *CyberSpace Cruiser* is a trademark of **Ivory Tower Software**. If you have suggestions for improving this software, or if you have found a bug, please let us know. You can contact **Ivory Tower Software** through CIS mail (76427,2611). Upgrades will be posted to CIS WinFun forum time to time. You can search the WinFun and WinShare forums on the keyword "ITS" to see all the **Ivory Tower Software** products.

Property Ownership
Cyberspace property owners have special data storage and retrieval privileges. There are two modes of data operations: "Clipboard Buffers" mode and "Permanent" mode. The MS Windows Clipboard utility is very useful for transferring information within and among applications, but it is limited in that copying new information to the Clipboard destroys the former contents. The "Clipboard Buffers" mode for cyberspace property owners provides eight Clipboard buffers for text and bitmap data.

As an example of the use of this capability, suppose you are editing a document and there are three paragraphs you wish to duplicate over and over again in different places in your document. First run *Cyberspace Cruiser* and jump to your property. This enables the "Clipboard Buffers" data mode. Then click on the title bar of your word processing window to activate it. Next, you would highlight the first paragraph, and do <crtl> + <insert> to copy it to the Clipboard. Then click on the title bar of *Cyberspace Cruiser* and do <crtl> + F1 to copy the Clipboard text to the first buffer. Then click on the title bar of the word processor and repeat the process (but with <ctrl> + F2) to place data in the second buffer, and again to place data in the third buffer. Now you can cruise down through your word processing document and paste any of the three paragraphs wherever you want. Just put the curser in the document location for pasting. Then click on the *Cyberspace Cruiser* title bar and do <shift> + Fn to paste the desired buffer data into the Clipboard. Then click on the word processor title bar and do <shift> + <insert> to paste the text into the document. Repeat this process as desired for up to eight cyberspace buffers, represented by the keys F1 through F8.

For permanent data storage and retrieval, property owners can click off the "Clip buffers" check box. Each of the billion points in a standard personal volume can store up to 32 kilobytes of text data.

To store data at a point, travel to the point where you want the data permanently stored. Next, put the text data to be stored in the text window above the view port by either pasting it from the Clipboard or by typing it in from the keyboard. Then select the "Action, Store data, Permanent" menu item.

To retrieve data from a point, travel to the point where the data is stored. Then select the "Action, Retrieve data, Permanent" menu item. This will place the retrieved text in the text window above the view port. To put this text into the Windows Clipboard, put the curser at the beginning of the text, do <crtl> + <shift> + <end> to select all the text, and

select the "Edit, Copy" menu item. I suggest that you use the data storage point at the center of your volume as in index for the data contents for the other points. Every time I add data to a point in my volume, I jump to the center of my volume (menu "Action, Jump to property" option) and add a line to the text data stored there with entries for the X, Y, and Z coordinates, and a description of what I have stored there.

Network Installation
Versions 1.13 and up support network cruising. Property owners can see and communicate with other property owners in cyberspace. Another user in cyberspace will appear as a colored 50 CLU diameter sphere at his current coordinates. A list of logged-in users is displayed, and messages can be sent to any of them from the "Action, Send Message" menu item. Click on the sphere that represents another user in cyberspace, and that user's name will be displayed. To install *Cyberspace Crossword* on a network, create a special directory for 3DXWD on your public network volume, and copy the executable file there. Then create an icon for 3DXWD by browsing for it in Program Manager. When you log in, you will be informed as to the names of the other users already logged in. As users log in or out, your list will be updated. There is no limit to the number of property owners logged in on the network.

History

Version	Date	Features
1.13	31-Oct-92	Support for network cruising for property owners is added. Any network which provides a public remote DOS virtual drive can be used to allow logged-in users to see each other in cyberspace and send messages to each other.
1.15	5-Nov-92	Faster performance by using a recursive sort in the object placing subroutine. Previous versions used a bubble sort.
1.16	14-Nov-92	Better performance with multiple cowboys in cyberspace on a network. When logged in, clicking on the representation of another cowboy tells you his name and provides other information.
1.17	19-Nov-92	Still faster performance by using smarter code. Speed is doubled when panning the view.
1.18	21-Nov-92	Fixes some execution redundancies when being bounced out of a controlled space and when rotating 360 degrees.
1.19	9-Dec-92	Slightly faster performance by combining two loops in the PlaceAllObjects subroutine.

1.20   6-Jan-93   Compiled with Visual Basic 2.0 for smaller executable size and better performance. Some support for user color options is added.

1.21   5-Mar-93   Fixes a bug that hides the pan left-right scroll bar on some VGA monitors.

1.22   29-Jun-93   Updates some clues on the level-1 puzzle.

1.23   8-Jul-93   Compiled with version 3.0 of Visual Basic to fix an obscure scrollbar bug.

1.24   23-Oct-93   Cosmetic changes in the flatlined state.

1.25   21-Dec-93   Adds the option to measure the elapsed time to update the display.