COLORNNCC

By: >>Your Name<< (>>Your net address<<)

>>Other packages necessary to run this one<<

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INTRODUCTION

This package is the Xerox Lisp software driver for Number Nine Computer Corporation's Revolution 512 x 8 color card. The IJCAI 1985 show featured an Interlisp-D color window system running on a Xerox 1108 attached to a Busmaster and color display. That color window system was based partly on a version of this package. This advanced high level software has become available with the Lyric release or Xerox Lisp.

NECESSARY HARDWARE

You need a Xerox 1108 with Extended Processor Option (CPE), Xerox Busmaster card, an IBM PC expansion chasis, a Number Nine Computer Corporation Revolution 512 x 8 color card, and a third party color display. Please contact your Xerox representative for details concerning acquiring and setting up all the required hardware.

Assuming you have all the hardware you need, turn it all on. This means

(1) Your 1108 is running Xerox LISP.

(2) Your PC expansion chassis is plugged in and powered on.

(3) A cable connects between your 1108 CPE board and your Busmaster board. (The Busmaster board does not go into the 1108, but should rest outside the 1108.)

(4) Another cable connects between your PC expansion chassis and your Busmaster board.

(5) A pair of purple and orange wires connects your Busmaster board to the +5V/Gnd power supply terminals on the side of your 1108.

(6) Your Number Nine Revolution 512 x 8 board is plugged into the PC expansion chassis.

(7) Your color display is plugged in and powered on.

(8) Three cables for red, green, and blue signal connect your Number Nine card to your color display.

Any reconnections that involve (3), (4), or (5) should be made while your 1108 is off. Until you issue some software commands, a black display is normal.

Check that your hardware is set up correctly by typing

(\COLORNNCC.STARTBOARD) [Function]

Taking less than a second to execute, there should be a noticable flicker on your color display, followed by what can be taken to be a stable abstract pattern representing the contents of the Number Nine card's RAM when the PC chassis was turned on. If \COLORNNCC.STARTBOARD doesn't return and simply waits, there could be something wrong with the BusMaster card. If \COLORNNCC.STARTBOARD does return, but the image is noisy instead of stable, it could be that you have to adjust the frequency selector on your color display.

COLORNNCC SOFTWARE

The COLORNNCC package provides the machine dependent portion of software that is needed to drive your color display assuming you are using an 1108 with COLORNNCC card and Busmaster. Other than LOADing the COLORNNCC package and turning the COLORNNCC package on using the function COLORDISPLAY, all additional functionality is provided by and documented with the COLOR package. There are no COLORNNCC functions that the user needs to call directly. The user calls functions described in the COLOR documentation.

Once your hardware is on, you can proceed to issue COLOR commands to your hardware. You should have the COLORNNCC package already LOADed from your LIBRARY directory. That is, you've already done something like (LOAD '<LIBRARY>COLORNNCC.DCOM). At this point it may be convenient to follow this documentation along with the documentation for COLOR in the Lisp Library Packages Manual. If you now type

```
(COLORDISPLAY 'ON 'REV512X8)
```

your display will now change from total black to a color test pattern with horizontal and vertical stripes. The sequence of events is that there should be a noticable flicker on your color display, followed by what can be taken to be an abstract pattern representing the contents of the Number Nine card's RAM when the PC chassis was turned on, followed by a white wall covering up this abstract pattern, followed by the painting of this white wall with horizontal and vertical strpes of color woven together. There are now some simple tests you can do to satisfy yourself that your hardware is working. Here is a small list of things to try:

```
(SETQ CSBM (COLORSCREENBITMAP))
(BLTSHADE 'WHITE CSBM)
(BLTSHADE 'RED CSBM)
(BLTSHADE 'GREEN CSBM)
(BLTSHADE 'BLUE CSBM)
(SETQ DS (DSPCREATE CSBM))
(DRAWLINE 0 0 500 500 10 'REPLACE DS 'YELLOW)
(DRAWLINE 500 0 0 500 10 'REPLACE DS 'CYAN)
```

Assuming all has gone well to this point, you should now be able to try all the functions described in the COLOR package documentation. The COLORDEMO package is a good source of test programs to try — (IL:LOAD 'COLORDEMO.LCOM) to get this package. Both COLOR and COLORDEMO documentation are in your LispUsers' Manual.