

Unlink <modname> Usage : Unlinks module(s) from memory @WCREATE  
 Syntax: Wcreate [opt] or /wX [-s=type] xpos ypos xsiz ysiz fcol bcol [bord]  
 Usage : Initialize and create windows Opts : -? = display help -z = read

command  
 lines from  
 stdin -s=type  
 = set screen  
 type for a  
 window on a

## AUSTRALIAN OS9 NEWSLETTER

new screen  
 @ X M O D E  
 S y n t a x :  
 X M o d e  
 <devname>  
 [params]

Usage : Displays or changes the parameters of an SCF type device  
 @COCOPR Syntax: cocopr [<opts>] {<path> [<opts>]} Function: display file  
 in specified format gets defaults from /dd/sys/env.file Options : -c set columns  
 per page -f use form feed for trailer -h=num set number of lines after  
 header -l=num set line length -m=num set left margin -n=num set starting  
 line number and incr -o truncate lines longer than lrlen -p=num set number  
 of lines per page -t=num number of lines in trailer -u do not use title

<b>EDITOR</b>	Gordon Bentzen	(07) 344-3881
<b>SUB-EDITOR</b>	Bob Devries	(07) 372-7816
<b>TREASURER</b>	Don Berrie	(07) 375-1284
<b>LIBRARIAN</b>	Jean-Pierre Jacquet	(07) 372-4675
	Fax Messages	(07) 372-8325
<b>SUPPORT</b>	Brisbane OS9 Users Group	

-u=title use specified title -x=num set starting page number -z[=path] read file  
 names from stdin or <path> if given @CONTROL Syntax: control [-e] Usage  
 : Control Panel to set palettes, mouse and keyboard parameters and monitor

**ADDRESSES**

**Editorial Material:**  
 Gordon Bentzen  
 8 Odin Street  
 SUNNYBANK Qld 4109

**Library Requests:**  
 Jean-Pierre Jacquet  
 27 Hampton Street  
 DURACK Qld 4077

type for  
 Multi-Vue.  
 Selectable from  
 desk utilities  
 menu as the  
 Control Panel.  
 Opts : -e =  
 execute the  
 environment file  
 @ G C L O C K  
 Syntax: gclock  
 Usage : Alarm  
 clock utility for  
 Multi-Vue.

**CONTENTS**

Editorial.....	Page 2
Merge Utility..	Page 3
Punctuation....	Page 5
OZ OS9 BBS.....	Page 7
The Rocket.....	Page 8
Cash Register..	Page 9

Selectable from desk utilities menu as Clock. @GCALC Syntax: gcalc Usage :  
 Graphics calculator utility for Multi-Vue. Selectable from desk utilities menu as

**Volume 7                      June 1993                      Number 5**

Calculator. @GCAL Syntax: gcal Usage : Calendar/Memo book utility for  
 Multi-Vue. Selectable as Calendar from the desk utilities menu. @GPRINT  
 Syntax: gprint Usage : Printer setup utility for Multi-Vue. Lets user graphically

AUSTRALIAN OS9 NEWSLETTER  
Newsletter of the National OS9 User Group  
Volume 7 Number 5

EDITOR : Gordon Bentzen  
SUBEDITOR : Bob Devries

TREASURER : Don Berrie  
LIBRARIAN : Jean-Pierre Jacquet

SUPPORT : Brisbane OS9 Level 2 Users Group.

**Just say NO to MS-DOS!**

This is the message which was carried on badges and T-Shirts at the recent Chicago CoCoFest. Yes, I did in fact make it to Chicago for the Fest and I have been very busy since. Consequently our newsletter has not made it out this month as promptly as usual.

Before I go any further, I must again thank those Usergroup members who supported the U.S. trip with their welcome donations. I will write to each of you and try to pass on some information and PD stuff which will support your special interests.

The CoCoFest was presented by the "Glenside Color Computer Club" and we reprint in part the message by their President, Tony Podraza.

"Welcome to the Second Annual "Last" Chicago CoCoFest! Why the word "Last"? For no other reason than to impress on people that we don't really know if there will be another Chicago CoCoFEST! You see, 1991 was the year of the final sponsorship of a 'fest in Chicago by the people we were used to have "carry the ball" for us, as it were.

In 1992, a member of Glenside was so determined to have a 'fest in Chicago that he took it upon himself to start looking for a place to have it, and in the meantime, began a campaign to find a sponsor. From these actions, the First Chicago CoCoFEST was spawned, and our thanks to Dave and Nancy Myers for accepting the challenge to sponsor that event.

That event became known as the first "Last" etc. and for the same reason we have adopted the word "Last" this year."

**Now to my report:-**

OS9 TOPICS

This CoCoFEST held over the week-end of May 1st & 2nd was attended by some 240 people over the two days. Many of the well known Vendors of CoCo products were represented as well as OS9 and OSK supporters. It was great to see a very strong representation from Microware. The seminar sessions on Saturday and again Sunday included presentations by Mike Burgess of Microware on OS-9000.

A number of general OS9 topics came up in these sessions and of particular interest to us were a couple of points.

A). Microware have adopted a more supportive role of OS9 Usergroups and have acknowledged that such

groups have a place in the world of OS9. I must be very careful not to misrepresent official Microware policy here, but I can say that we were encouraged by what seems to be a supportive attitude. This is perhaps demonstrated by the "special" on OS-9000 offered at the Fest. OS-9000 was offered at US\$350 instead of the normal price US\$1000. Included in the package was the 'C' compiler and the Assembler. B). Microware are committed to supporting OSK as long as Motorola produce the 68000 series of processors and at the same time OS-9000 will enjoy a parallel development.

This "special" was just too inviting for me to pass up, so I am now the proud user of a copy of the OS-9000 operating system. As I have had no time to do anything with it as yet I will have to reserve my comments about it until a later newsletter.

So for those CoCo OS9 Level 2 users who have not yet made the "upgrade" choice it does seem that the OS9 choice is between OSK and a Motorola 68xxx machine (perhaps the MM/ONE) and a Intel 80386 or 80486 PC/AT machine.

For those interested, the PC/OS-9000 Manual lists the minimum configuration as:- An AT-compatible or ISA-compatible motherboard and peripherals; 80386SX, 80386DX, 80486SX or 80486DX processor; ST506 (MFM, RLL), ESDI, IDE or Adaptec SCSI controller; Hercules-compatible or VGA video controller; One or more 5 1/4" high density or 3 1/2" low or high density floppy drives; 2 Meg or more of RAM.

COCO TOPICS

For those members interested in CoCo hardware and software I am able to report that support in the U.S. is still available. Numbers of CoCo3's were on sale (U.S. versions of course) second hand and even a few new machines. All sorts of hardware and software items were on offer including new packages of the CoCo OS9 operating system. I could have spent several thousand dollars and filled several suitcases with goodies which would have been very well received by our members here in Australia, but this was not possible or practical. I hesitate to make recommendation of one vendor over another in this editorial, however, if there is a particular item on your wish list, please contact me and I will be able to give you some contacts.

Those companies which are known to supply specialized products include:-

Burke & Burke  
P.O. Box 733  
Maple Valley WA 98038

Disto Products  
CRC Computers  
10802 LaJeunesse  
Suite 102  
Montreal, Quebec  
Canada  
H3L 2E8  
(2meg upgrade for CoCo3, plus more)

Frank Hogg Laboratory Inc.  
204 Windemere Road  
Syracuse NY 13205

or for more information, try:-

OS-9 User Group  
PO Box 336  
Wyoming DE 19934

Glenside Color Computer Club  
119 Adobe Circle  
Carpentersville IL 60110

Andre' J LaVelle  
South Bay Users Group  
1251 W.SEPULVED BLVD #400  
TORRANCE, CA 90502-2677  
(has a wide range of products available, worth an enquiry).

Well that might have to do for this month, until next time, Happy OS9ing.

Cheers, Gordon.

oooooooooooo0000000000oooooooooooo

A replacement MERGE utility  
by Bob Devries

I wish I had a dollar for all the times that OS9 users called me to say 'I just modified my SHELL, and now I can't boot from my system disk!' There are even several people who do it regularly! The main reason is not that there is a faulty module, although that could also be true, but more likely that the user forgot to set the attributes of the new SHELL file to executeable. Well, suffer no more! I have written a replacement merge utility, which I have called MODMERGE.

The programme has two command line switches, one which is mandatory, and one which is optional. The switches are these:

- o=<pathname>
- a=<attributes>

The command line goes like this:

modmerge -o=file -a=pepwprewr file file file.....

You may put the attributes in any order, but don't put spaces between the attributes. The two switches may be placed anywhere on the command line, for example, 'modmerge file file -a=peprewr -o=outfile'

As usual, the programme will be available in our PD library for those people who don't have a C compiler. For those that do, a couple of notes. The programme uses a header file called 'lowio.h' which defines the file io constant 'UPDATE' (which equals 3), and also requires the C standard library by Carl Kreider, also available in our PD library. This is necessary because I used the function 'strnucmp()', and the function '\_ss\_attr()'. Anyway, for those hardy souls who thrive on typing in C programmes (like myself), here is the source:

Regards, Bob Devries

```

/* MODMERGE - a replacement for MW's merge for OS9 */
/*           which allows commandline attribute */
/*           setting for the destination file.    */
/* Copyright (c) 1993 by Bob Devries.            */
/* This file may be distributed freely           */
/* but not used commercially.                   */
/*                                               */
/* To compile, use the library KREIDERLIB.L     */

```

```

#include <stdio.h>
#include <modes.h>
#include <lowio.h>

#define TRUE 1

main(argc,argv)
int argc;
char *argv[];
{
    FILE *ofp, *ifp, *fopen();
    char *outfile;
    char *infile;
    char *atstr;
    char *attptr;
    int i,attr = 0,ch,path;

    setbuf(stdin,NULL);

    if (argc < 2)
        usage(0);

    for (i=1; i<argc; i++) {
        if (strncmp(argv[i],"-o=",3) == 0) {
            outfile = malloc(strlen(argv[i]+3)+1);
            strcpy(outfile,argv[i]+3);
        }
        if (strncmp(argv[i],"-a=",3) == 0) {
            atstr = malloc(strlen(argv[i]+3)+1);
            strcpy(atstr,argv[i]+3);
        }
    }

    if (outfile == NULL)
        usage(0);

    if (atstr == NULL) {
        attr = S_IREAD + S_IWRITE;
    } else {
        while(TRUE) {
            attptr = index(atstr,'p');
            if (attptr != NULL) {
                if (tolower(*(attptr+1)) == 'e') attr |= S_IOEXEC;
                if (tolower(*(attptr+1)) == 'w') attr |= S_IOWRITE;
                if (tolower(*(attptr+1)) == 'r') attr |= S_IOREAD;
                *attptr = ' ';
                *(attptr+1) = ' ';
            } else {
                break;
            }
        }

        if ((rindex(atstr,'e') != NULL) || (rindex(atstr,'E') != NULL))
            attr |= S_IEXEC;

        if ((rindex(atstr,'w') != NULL) || (rindex(atstr,'W') != NULL))
            attr |= S_IWRITE;
    }
}

```

```

    if ((rindex(atstr,'r') != NULL) || (rindex(atstr,'R') != NULL))
        attr |= S_IREAD;
}

if((ofp = fopen(outfile,"r")) != NULL) {
    fclose(ofp);
    fprintf(stderr,"File exists. Overwrite (Y or N) ");
    ch = getchar();
    putchar('\n');
    if (toupper(ch) != 'Y') usage(218);
} else {
    usage(errno);
}

if((ofp = fopen(outfile,"w")) == NULL) {
    fprintf(stderr,"Can't open %s for output.\n",outfile);
    usage(errno);
}

for (i=1; i<argc; i++) {
    if (argv[i][0] == '-') continue;
    if ((ifp = fopen(argv[i],"r")) == NULL) {
        fprintf(stderr,"Can't open %s.\n",argv[i]);
        continue;
    }
    while((ch = getc(ifp)) != EOF) putc(ch,ofp);
    fclose(ifp);
}
fclose(ofp);

path = open(outfile,UPDATE);
attr = _ss_attr(path,attr);
close(path);
if (attr == -1) usage(214);
}

usage(error)
int error;
{
    fprintf(stderr,"Usage: modmerge -o=outfile -a=attributes file file...\n");
    fprintf(stderr,"      where attributes = pepwprewr\n");
    fprintf(stderr,"      don't use spaces in the attribute string.\n");
    exit(error);
}

/* EOF */

```

oooooooooooo0000000000oooooooooooo

### Punctuation, its correct use in English

The following article is reprinted with permission, from 'CURSOR', the newsletter of 'Commodore Computer Users Group Qld'. It was written by Scott Roseboom. I strongly suggest that all writers read this thoroughly, and that any newsletter editor reading this consider reprinting

it. Reprint rights are hereby given to all, just mention the source.

Editor

### Use of Capitals.

Capital letters must be used for:

- (1) Proper nouns. E.g., Egbert, Second World War, Wednesday 5th.
- (2) Titles of books, ships, houses, etc. E.g., "Albatross", "The Play-boy of the Western World", "To the Lighthouse", but articles, prepositions and conjunctions in titles do not take capitals unless they begin the title.
- (3) The first word of direct speech. e.g., She exclaimed, "What an impossible man!".

#### Use of Full Stops.

A Full Stop is used to show the end of a sentence. Full Stops must be used:

- (1) To complete all sentences, unless an exclamation mark is required.
- (2) To mark abbreviations, unless the last letter of the abbreviation is also the last letter in the complete word. E.g., Mr Kennedy, Park Ave, Pty Ltd. If the abbreviation ends the sentence then a full stop must be used.

#### Use of the Comma.

Here are the main uses of the comma:

- (1) Commas mark off opening phrases. E.g., Hearing the noise, the hunter turned sharply.
- (2) Commas indicate a fairly strong pause. E.g., I want to be helpful, though I'm not sure what you want.
- (3) Commas indicate words omitted within a sentence. E.g., Others are afraid to speak forthrightly; you, never.
- (4) Commas have many uses in direct speech. E.g., "Come along tonight," he said, "and we will make you welcome."

#### Use of the Question mark.

- (1) Question marks must be used after all direct questions, whether in direct speech or in ordinary expression. E.g., "Are you ready?", asked the starter. What could he do?
- (2) Do not use question marks in part of reported speech. Indirect questions only require a full stop. E.g., He wondered what to do.
- (3) Do not confuse exclamations with questions. E.g., How could you do such a thing!

#### Use of Exclamation marks.

To denote excitement, surprise, forcefulness or a short command. E.g., What a world! Halt! Oh wake up to yourself!

#### Use of Inverted commas

Quotation marks or inverted commas are used:

- (1) At the beginning and end of direct speech. It is a matter of taste whether "double quotes" or 'single quotes' are used.
- (2) To mark off quoted words, phrases, sentences or paragraphs. For a passage of several paragraphs of continuous quotation, each new paragraph of quotation will require to be introduced by inverted commas, but only final paragraph needs marks at the end.
- (3) Around the titles of all novels, plays, poems and other publications (unless underlined or in italic script). E.g., "War and Peace".

#### Use of Apostrophes.

- (') The sign of possession:  
Add ('s) to singular nouns, only the (') to plural nouns. E.g., a bird's (one bird) nest; three birds' nest.

Do not add the (s) to a singular noun when the addition gives a clumsy sound, only add the ('). E.g., Jesus' sake, Mr Menzies' speech, but Dr Hewson's miscalculations!

Although the most common use of apostrophes is showing possession, some other uses are:

- (1) To indicate omission of a letter or figure. E.g., I've, he's, o'clock, 'tis, it's, I was born in '48.
- (2) To denote plurality of figures and letters. E.g., 1940's, Dot your i's and cross your t's.
- (3) Remember: its life, shows possession, it's life, means, it is life.

#### Use of colons.

A colon is used when:

- (1) Several parts of a sentence need to be related to a common start, as in a list. E.g., This is the full list: three bullocks, two sheep, five chooks and ten pigs. My main goals are: to get home, to stay dry and to be on time.
- (2) Introducing a quotation. E.g., His view on this subject is: "Speed does not kill, it is the sudden stop." It leaves nothing to doubt: "Abandon hope all ye who enter here."

#### Use of Semicolons.

Despite the name a semicolon is not half a colon. A semicolon is used to separate two ideas yet stresses their close relationship by holding these ideas within one sentence. E.g., That is the right answer; it is exactly what was wanted. You should go; poor Terry is so ill. If you have any questions please write; if you have no time to write, ring me; if you feel the need, come see me.

**Use of Brackets and Dashes.**

(Parenthesis - plural: parentheses).  
 An insertion into a sentence, words that are not basic to the sentence (secondary material), which modifies or explains a point. Either form is acceptable (brackets - dashes). The sentence with the parenthesis removed must still be a complete sentence. E.g., There he was - the President himself. That play was wonderful - yes, quite wonderful.

Used in sentences to explain jargonistic terms. E.g., The Cursor (the pointer on a computer screen that shows you where you are on the screen) needs to be moved over the icon (a graphic on a computer screen that represents an operation or option) and then by pressing the button you can enter the program.

**Use of Hyphens.**

There is no agreement on the use or non-use of hyphens. The tendency is to use hyphens to usefully pair words as one word. It is undesirable to depart from hyphenating words such as these: apple-pie, ill-tempered, sharp-pointed, thick-skinned, editor-in-chief.

Hyphenating can also be used with words that won't fit at the end of a line. Never:

- (1) Divide a word of one syllable.
- (2) Have a syllable of less than four letters to carry over to the next line.

**Source material taken from:-**

**Mastering English, by Wheeler & Walshe.**

A Senior English text book for Qld. Schools since 1971.

oooooooooooo0000000000oooooooooooo

OZ - OS9 BBS  
 (07) 2009870

Hi, this is your Sysop once again letting you know how the BBS is coming along and what sort of info is available. I'm currently putting working on a picture directory so if anyone has any pictures they would like to donate, I would then convert them for other users to use. I have approximately 64 colour pictures which are in VEF format for which MVcanvas uses, but I am still looking for more. I also have a large number of fonts for MVcanvas if any person is interested. Great for school projects and assignments or making decorative signs or pamphlets.

**Software**

In the OS9 RIBBS directory there is an archived program called Color22.pak. In this archive there 5 programs and 1 document. The programs you need are color.b09 which you rename to color and set the attributes and fileconvert and set the attributes. Load both of these files into memory after you have finished editing your file. Below is the document which explains how to place the codes when editing your file.

COLOR Version 2.2

UPDATES from color 2.0

Screen postion coding - allows you to place the cursor at X,Y corrdinates.

Are you tired of the plain everyday text files? Tired of seeing the same colors ALL the time. Well

have no fear, Color 2.0 is here. This program will Allow you to add Color along with Blinking, and Underlining to your documents. It will also now allow you to clear the screen. The commands are as follows:

- \Fx - Change foreground color to x
- \Bx - Change Background color to x
- \Ux - underline x=1 on x=0 off
- \Rx - reversed foreground and background x=1 on x=0 off
- \Xx - blink switch second x=1 on x=0 off
- \CO - clear screen and home cursor.
- \Mxxy - postions cursor at X,Y and prints from there.

The following the color and it's corresponding number:

- RED = 1
- GREEN = 2
- YELLOW = 3
- BLUE = 4
- VIOLETE = 5
- LIGHT BLUE = 6
- WHITE = 7
- BLACK = 8

Imbedding the codes:

The following is an example on how to imbed the commands

\F8\CO

\F5This is an example of how the commands should be  
\Ulimbedded\UO.

AS you see the color command should come before the word, letter, or phrase should be placed before the thing you want to color, underline, clear when it gets to that point, or blink. That is about it, if you have any questions please contact me at either of these places.

Positioning the Cursor

A new feature for RiBBS 2.0 users has finally arrived. You can now position the cursor anywhere on the screen you want to. In other words you can have an active screen, and have the full ANSI effect of an IBM board. To use this command imbed it like this.

\M0015This is a test.

You must have the command in that format and only one \M can appear on the line at a time. The numbers must be like you see. The first two digits are the X coordinates and the last two digits are the Y coordinates. If you don't enter the coordinates like the example you will mess up your text file and have to re-edit it. I have enclosed a sample of my welcome screen so that you can see how the finish product looks. I have also enclosed the text file I created this from.

I hope you enjoy this program, it should make your BBS look more professional.

Sysop  
Rod Holden

PS. Times for OZ - OS9 BBS 2000 - 2230hrs (AEST)  
PPS. And the phone number is (07) 2009870

oooooooooooo0000000000oooooooooooo

**Ride The Rocket**

(A Conversation with Chris Burke)

[This article was taken from the PNW CoCoFEST III newsletter. ED]

SPECIFICATIONS:

The Rocket  
CoCo Replacement CPU

- \*Blazing fast 14Mhz 68EC000 Processor.
- \*Plugs into Color Computer CPU socket.
- \*Boot ROM with OS-9 68000 Kernel and 6309 Simulator.
- \*16-bit Wide Memory (512/2M/8M)
- \*RBF (Disk), SCF (Serial), View (Window), and Interprocess (Pipe) Managers.
- \*Utility programs (shell, assembler/linker, editor, file/task/resource maintenance).
- \*USES EXISTING COLOR COMPUTER PERIPHERALS
- \*Uses CoCo memory for 6x09 emulation, RAM disk & graphics.

Rocket CPU (Ok kit w/software) US\$195.00  
Rocket 2MB (2meg kit with software) US\$295.00  
Burke & Burke +1 206 432 1814  
PO Box 733 Maple Valley, WA, USA 98038.

Q: So what's the deal with this 'Rocket', Chris?

A: The Rocket' combines the latest in microprocessor technology with a unique bus interface circuit developed by Burke & Burke, to actually replace the Color Computer's 8/16 bit 6809E CPU with a 16/32 bit

68EC000 CPU. In addition to being faster, the 68EC000 can directly run larger programs and manipulate more data than the 6809E.

Q: Isn't 'The Rocket' really a CoCo 4?

A: We believe that 'The Rocket' is more deserving of the name 'CoCo 4' than any other product ever advertised or produced. 'The Rocket' gives you the benefits of OS-0/68000, as well as compatibility with much existing software.

Q: When will 'The Rocket' be available ?

A: Recent advances by Motorola and our software developers have given Burke & Burke the technology to build 'The Rocket' and offer it at an amazingly low price. But there's a catch. There's no sense in Burke & Burke building 'The Rocket' if nobody wants one. We're prepared to build and deliver 'The Rocket' to our customers within 90 days of receiving commitments totaling 100 or more units.

Q: How do I book my ride on 'The Rocket' ?

A: Burke & Burke is currently accepting advance orders for 'The Rocket'. As always, we don't cash your check or bill your credit card until we've shipped 'The Rocket' to you. If we don't receive orders totaling 100+ by June 30, 1993, we'll cancel your order and return your uncashed check to you.



(Article based on info on FideoNet's OS-9 echo)

I sent Chris Burke a FAX with another batch of questions, and received an answer within 15 minutes! Here's what I asked:

Q: For the money, it seems obvious that OS9/68000 is not supplied. Which version can be used for this board?

A: OS9/68000 IS included, with our own versions of RBF, SCF, WINDOWS and PIPE, but no C compiler. [Personal version. ED]

Q: Will it still be possible to run RSDOS?

A: Yes, a switch is supplied to switch between processors.

Q: Since we in Australia have only just heard of this, will you extend your 'deadline' to allow Aussies to contact you if interested?

A: Yes, deadline now July 31st.

Q: Will 'The Rocket' support the Disto SCII controller in no-halt mode, and will it support the 4-in-1 board? We automatically assume that it supports the B&B XT-RTC :-)

A: Yes, YES, YES, Any peripheral connected to the MPI will work.

Q: The article mentions '6309 emulation'. Does this mean that ALL OS9/6809 software will work, or will

there be some exceptions?

A: Timing differences in emulation mode will mean some software will run differently.

Q: How close are you to receiving your target 100+ orders?

A: Currently have approximately 25, but expect to be able to start production with as few orders as 75.

Q: You mentioned RBF, SCF etc., what about disk (and other) device drivers?

Q: Does it have a window interface (like CoCo OS9)?

Q: Does 'The Rocket' come with OS9/68000 manual(s)?

Q: What type of memory is used? (Chips, SIMS...)?

Q: Will 'The Rocket' fit into Australian CoCos? They have a different board layout! (Disto's 1MB had much difficulty!)

Q: What is the approximate cost of airmail postage to Australia?

I have, at the time of going to print, not received an answer to the last 6 questions (they were sent later), but I would suggest that 'The Rocket' will use SIMM memory, and that airmail cost will be approximately US\$10.00. The 'fit' question remains unanswerable, but I guess we are all fairly flexible and ingenious, and would be able to make it fit.

wooooooooooooo0000000000oooooooooooo

### Cash Register

I found this little programme while going through the PD files on my hard disk. No documentation, but the source speaks for itself I think. Will someone have a go at conversion to Basic09?

```

/*
** Cash Register
** By David Cook
*/
#include <stdio.h> /*Include STANDARD HEADER FILE */
float purch; /*Declare 'purch' as a global float */
main()
{
    float purch; /*Declare floats*/
    pffinit(); /* Initialize floats */
    pflinit(); /* Initialize printing floats */
    purch = 0.0; /* Variable 'purch' = 0.0 */
    do{

```

```

    title(); /* Call up 'title' function */
    scanf("%f",&purch); /* Input value for 'purch' */
    taxes(purch); /* Call up 'taxes' function */
    printf("\n"); /*print*/
    printf(" Press 'q' to quite program \n");
    printf(" By David Cook \n");
}while((getchar()) != 'q');
}
/*
** Title Function
*/
title()
{
    int a; /*Declare 'a' as integer */

    for(a=0;a!=36;a++){ /* for a = 0 to 35 */
        printf("*"); /*print '*'*/
    }
    printf("\n \n");
    printf("Please enter your total purchase:\n");
    printf("\n");
    for(a=0;a!=36;a++){ /* for a = 0 to 35 */
        printf("*"); /*print '*'*/
    }
    printf("\n");
}
/*
** Tax add on Function
*/
taxes(purch)
float purch;
{
    float tax,dummy; /* Declare tax and dummy as float */
    tax = 1.0625; /* Variable tax = 1.0625 */
    dummy = purch * tax; /* compute tax */
    printf("\n");
    printf("The total purchase price is %3.2f \n", dummy);
}

```

oooooooooooo0000000000oooooooooooo