

TAWS1

TAWS stands for "Text Adventure Without Swords". The 1 indicates that there are more TAWS coming.

This first in the TAWS series is perhaps the simplest a trading simulation could possibly be. Buy low, sell high. One thing TAWS1 does right is make it so that without readme or instructions you can play this game and pretty reliably find yourself doing well quickly. So with that in mind further instruction would be superfluous. Just play the game.

TAWS1 was written by Anthony Suarez who boast it was made in approximately 1 hour and 25 minutes.

Please note: TAWS1 comes in two source files that must be compiled and then linked together before it will run.

```
/* game.c listing begins: */
#include <sys/stat.h>
#include <stdio.h>
#include <stdlib.h>
#include <time.h>

#define RESET_AT 10000000
#define RESET_TO 10000

unsigned int credits=100;
unsigned int merchandise=10;
unsigned int price=15;
unsigned int stars=0;
char saveName[64]="\0";

void Game_Help (void) {
    printf("The object of TAWS (Text Adventure Without Swords) is to "
        "accumulate\n");
    printf("wealth by selling merchandise when the price is high, "
        "and buying it\n");
    printf("when the price is low. To get a new quote on the price, "
        "type status.\n");
    printf("-- Commands --\n");
    printf("status: Show current credits, merchandise and prices.\n");
    printf("trade: Trade merchandise for credits, or vice versa.\n");
    printf("load: Load a previously saved game.\n");
    printf("save: Save your game.\n");
    printf("help: Show this helpful information.\n");
    printf("exit: Exit the game, but why would you want that?\n");
    printf("-- Tips --\n");
    printf("Careful with those status updates, they don't come cheap!\n");
}

void Game_CheckCredits(void) {
    if (credits < RESET_AT)
        return;
    printf("\n");
    printf("Congratulations!\n");
    printf("You have accumulated over ten million credits!\n");
    printf("You will receive a star in exchange for each ten million!\n");
    printf("\n");
    while (credits >= RESET_AT)
    {
        credits = credits - RESET_AT;
        stars++;
    }
    credits = RESET_TO;
}

void Game_Status(void) {
    price=22-(rand()%15);

    if (credits >= 2)
    {
        printf("Charged 2 credits for status update.\n");
        credits-=2;
    }

    Game_CheckCredits();
    printf("You have %u credits.\n", credits);
    printf("You have %u units of merchandise.\n", merchandise);
    printf("The current PPU (price per unit) of merchandise is $%u.\n", price);
}
```

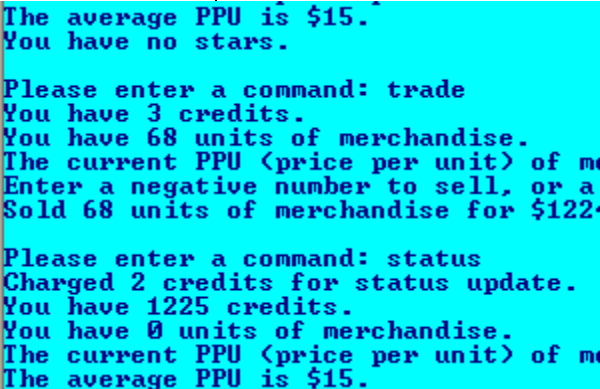
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printf("The average PPU is $15.\n");
if (!stars)
    printf("You have no stars.\n");
else
    printf("You have %u stars.\n", stars);
}

void Game_Trade (void) {
    int num;
    if (!credits && !merchandise) {
        printf("You have no credits and no merchandise. You have failed.\n");
        return;
    }
    printf("You have %u credits.\n", credits);
    printf("You have %u units of merchandise.\n", merchandise);
    printf("The current PPU (price per unit) of merchandise is $%u.\n", price);
    printf("Enter a negative number to sell, or a positive number to buy: ");
    scanf("%i", &num);
    if (num == 0)
        return;
    else if (num < 0 && -num > merchandise) {
        printf("You can't sell that many units of merchandise!\n");
        return;
    }
    else if (num > 0 && num*price > credits) {
        printf("You can't buy that many units of merchandise!\n");
        return;
    }
    credits -= (unsigned int)(price*num);
    merchandise += num;
    if (num < 0)
        printf("Sold %u units of merchandise for $%u.\n", -num, -num*price);
    else if (num > 0)
        printf("Bought %u units of merchandise for $%u.\n", num, num*price);
    Game_CheckCredits();
}

void Game_Load (void) {
    char buf[64];
    char filename[80];
    FILE *f;
    time_t timeData;
    struct tm * dateInfo;
    // ask the player for a filename
    printf("Enter your save name please: ");
    scanf("%s", buf);
    sprintf(filename, "GameData/%s.sav", buf);
    f = fopen(filename, "rb");
    if (f) {
        fread(&credits, sizeof(unsigned int), 1, f);
        fread(&merchandise, sizeof(unsigned int), 1, f);
        fread(&stars, sizeof(unsigned int), 1, f);
        fread(&timeData, sizeof(time_t), 1, f);
        fclose(f);
        printf("Game loaded successfully.\n");
        dateInfo = localtime(&timeData);
        printf("This game was last saved at %s", asctime(dateInfo));
        sprintf(saveName, "%s", buf);
    }
    else
        printf("Save file %s not found.\n", buf);
}
```



```
The average PPU is $15.
You have no stars.

Please enter a command: trade
You have 3 credits.
You have 68 units of merchandise.
The current PPU (price per unit) of m
Enter a negative number to sell, or a
Sold 68 units of merchandise for $1224

Please enter a command: status
Charged 2 credits for status update.
You have 1225 credits.
You have 0 units of merchandise.
The current PPU (price per unit) of m
The average PPU is $15.
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void Game_Save (void) {
    char buf[64];
    char filename[80];
    time_t dateInfo;
    FILE *f;
    // ask the player for a filename
    if (saveName[0] != '\0') {
        printf("Do you want to save your game as \"%s\"? ", saveName);
        scanf("%s", buf);
        if (tolower(buf[0]) == 'y')
            sprintf(filename, "GameData/%s.sav", saveName);
        else
        {
            printf("Enter a save name please: ");
            scanf("%s", buf);
            sprintf(filename, "GameData/%s.sav", buf);
        }
    }
    else {
        printf("Enter a save name please: ");
        scanf("%s", buf);
        sprintf(filename, "GameData/%s.sav", buf);
    }
    f = fopen(filename, "wb");
    if (!f) {
#ifdef WIN32
        if (mkdir("GameData") == 0)
#else
        if (mkdir("GameData", 0777) == 0)
#endif
        {
            f = fopen(filename, "wb");
            if (!f)
            {
                printf("Save failed.\n");
                return;
            }
        }
        else {
            printf("Save failed.\n");
            return;
        }
    }
    if (f) {
        fwrite(&credits, sizeof(unsigned int), 1, f);
        fwrite(&merchandise, sizeof(unsigned int), 1, f);
        fwrite(&stars, sizeof(unsigned int), 1, f);
        dateInfo = time(NULL);
        fwrite(&dateInfo, sizeof(time_t), 1, f);
        fclose(f);
        printf("Game saved successfully.\n");
    }
}

```

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/* main.c listing begins: */

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#include <stdio.h>
#include <string.h>
#include <stdlib.h>
#include <time.h>

```

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extern void Game_Help(void), Game_Status(void);
extern void Game_Trade(void);

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extern void Game_Save(void), Game_Load(void);

extern unsigned int price;

int main (int argc, char *args[])
{
    char buf[64];
    unsigned int start = time(NULL), spent;
    srand(time(NULL));
    price=22-(rand()%15);
    printf("\n");
    printf("*****\n");
    printf("Welcome to TAWS (Text Adventure Without Swords)!\n");
    printf("*****\n");
    while (1)
    {
        printf("\nPlease enter a command: ");
        scanf("%s", buf);
        if (!strcmp(buf, "help"))
            Game_Help();
        else if (!strcmp(buf, "status"))
            Game_Status();
        else if (!strcmp(buf, "trade"))
            Game_Trade();
        else if (!strcmp(buf, "save"))
            Game_Save();
        else if (!strcmp(buf, "load"))
            Game_Load();
        else if (!strcmp(buf, "TAWS"))
        {
            printf("TAWS is most commonly known as Text Adventure Without Swords.\n");
            printf("However, it has other meanings as well, including:\n");
            printf("Text And Wealth Simulation\n");
            printf("Torrential Admission of Watery Soup\n");
            printf("Timetable Antithesis Waking Somebody\n");
            printf("... or just TAWS.\n");
        }
        else if (!strcmp(buf, "quit") || !strcmp(buf, "exit"))
        {
            printf("Would you like to save your game first? ");
            scanf("%s", buf);
            if (tolower(buf[0]) == 'y')
                Game_Save();
            break;
        }
        else
            printf("Come on, type something real (try 'help').\n");
    }
    spent = time(NULL)-start;
    printf("You spent %i minutes and %i seconds playing this game.\n", (spent/60), (spent%60));
    printf("Well, wasn't that fun? See you next time!\n\n");
    return 0;
}

```