

VAX to
DOS to
WIN to
WEB

An Engineer's GUI Journey 1983 - 2003

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Take a walk through a progression of User Interface standards and advancements from a Software Engineers perspective.

Spanning the years from 1983 until 2003 during an explosive and formative era of many technologies.

The GUI we use today wasn't always the only path as we'll see from demos and real-world application examples.

About Byron...



Healdton Oklahoma

(population 2,861)

Halfway between everything

That's not me in this picture,
But it happened just like this...



https://external-preview.redd.it/Rhfx_IN3oP7orhnRfmOp5XlggMxKjhLGknnxhEFMCw.jpg?auto=webp&s=0a86b190e649b0cd2ab130b1c3d36f3b916f0ab6



I was PAID to USE

- DBase IV
- C++
- Turbo Pascal
- Borland Delphi
- Visual Basic
- Microsoft Access VBA
- RPG
- COBOL
- Java
- Microsoft ASP
- JavaScript
- VB.NET / ASP.NET
- T-SQL
- Microsoft C#
- Allaire ColdFusion
- PHP on LAMP Stack

I learned for FREE

- BASIC
- HyperTalk
- Pilot
- Pascal
- C
- 8086 Assembly
- 6502 Assembly
- Fortran
- LISP
- Ada
- Clarion
- Perl
- Python
- Ruby

We Are All Time Travelers



Generational Cohorts

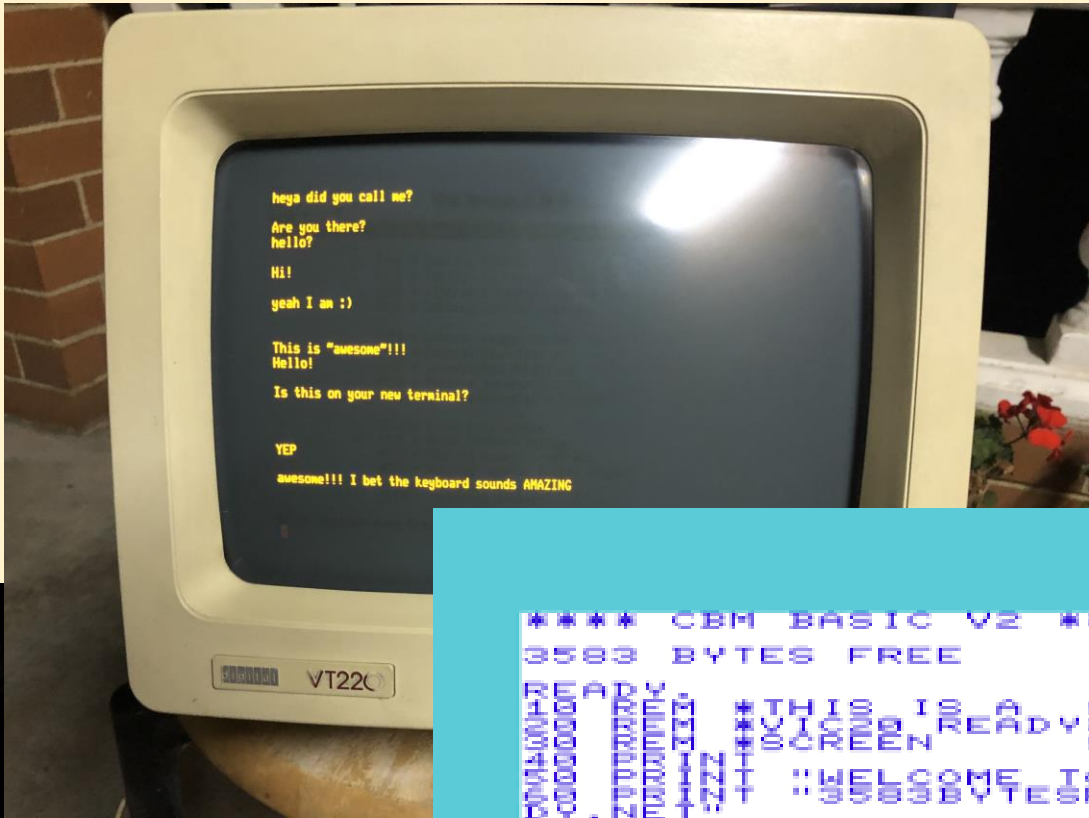
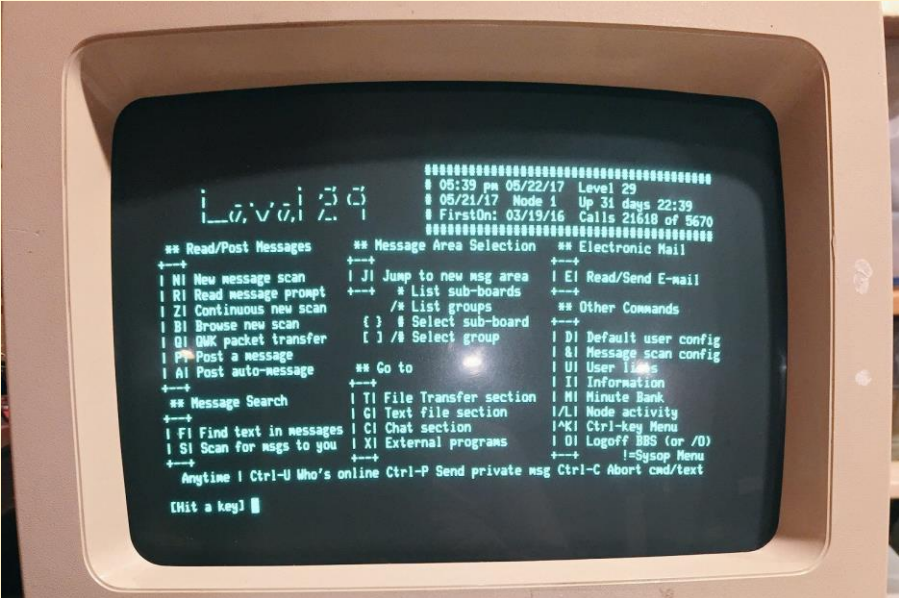
- Shared formative experiences
 - World events
 - Economic shifts
 - Social changes
 - Technology advances
- General truths about lifecycle and attitudes
- Not everyone fits in the box, but surprisingly – most do

Generations	Born	Current Ages
Gen Z	1997 – 2012	11 – 26
Millennials	1981 – 1996	27 – 42
Gen X	1965 – 1980	43 – 58
Boomers II (a/k/a Generation Jones)*	1955 – 1964	59 – 68
Boomers I*	1946 – 1954	69 – 77
Post War	1928 – 1945	78 – 95
WWII	1922 – 1927	96 – 101

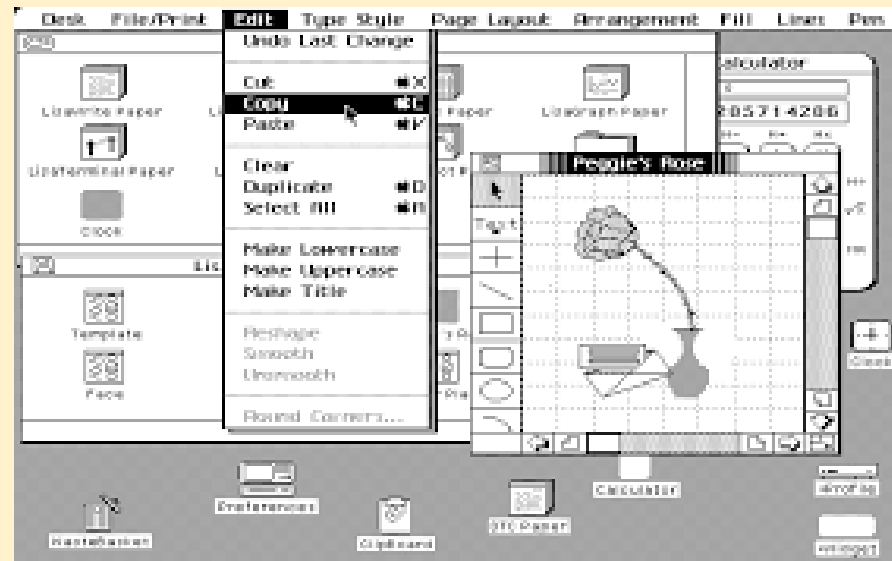
<https://www.beresfordresearch.com/age-range-by-generation/>

<https://www.pewresearch.org/fact-tank/2019/01/17/where-millennials-end-and-generation-z-begins/>

The Before Times



The Rise of the Graphical User Interface



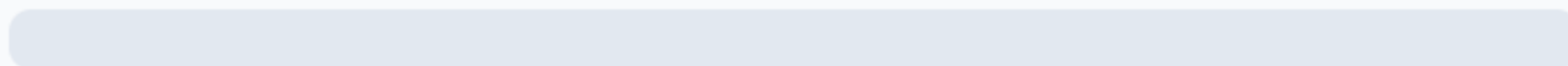


When poll is active respond at PollEv.com/byronstout108



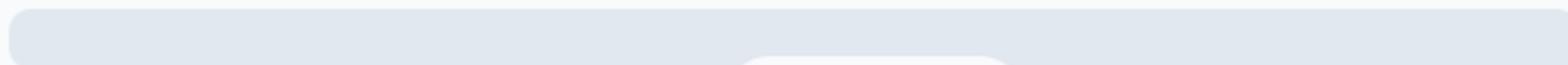
What was your first GUI?

The Alto



0%

GEOS



0%

Amiga OS / TOS (Atari)

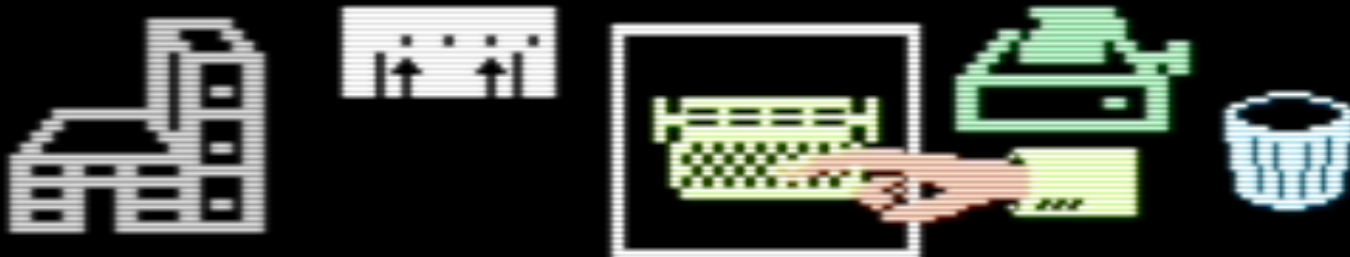
SEE MORE



This is the Typewriter
in Magic Desk I



... 10 ... 15 ... 20 ... 25 ... 30 ... 35 ... 40 ... 45



1983 – 1987 Notable World Events



- ✓ President Reagan proposes SDI (Star Wars)
- ✓ US Invades Grenada
- ✓ Final episode of MASH
- ✓ 1984 super bowl ad for Apple Macintosh
- ✓ Live Aid benefit concert
- ✓ New Coke
- ✓ Chernobyl disaster
- ✓ Hands Across America
- ✓ Oprah Winfrey Show debuts
- ✓ President Reagan "tear down this wall" speech

1983 – 1987 in PC Operating Systems



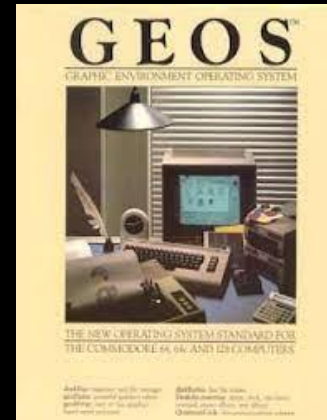
1983.... v2
1984.... v3



1983 – LisaOS



1984...System 1
1985...System 2
1986...System 3
1987...System 4



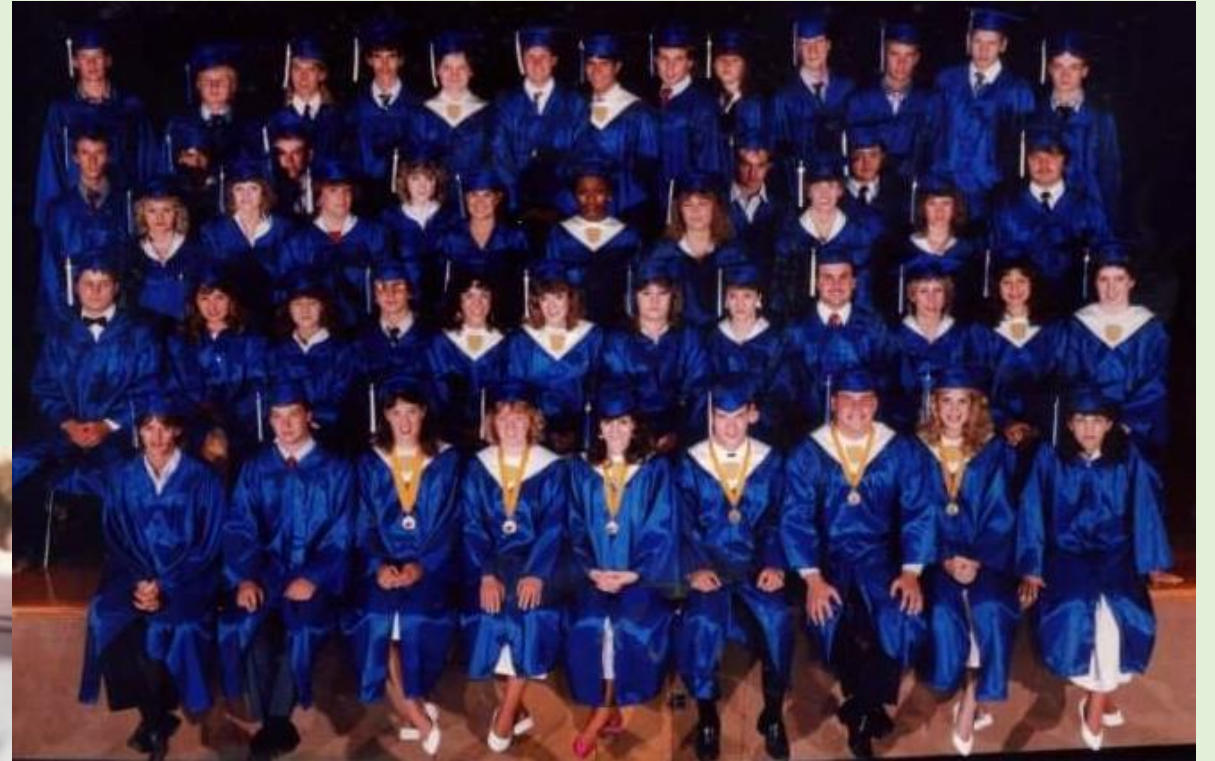
1986.... v1

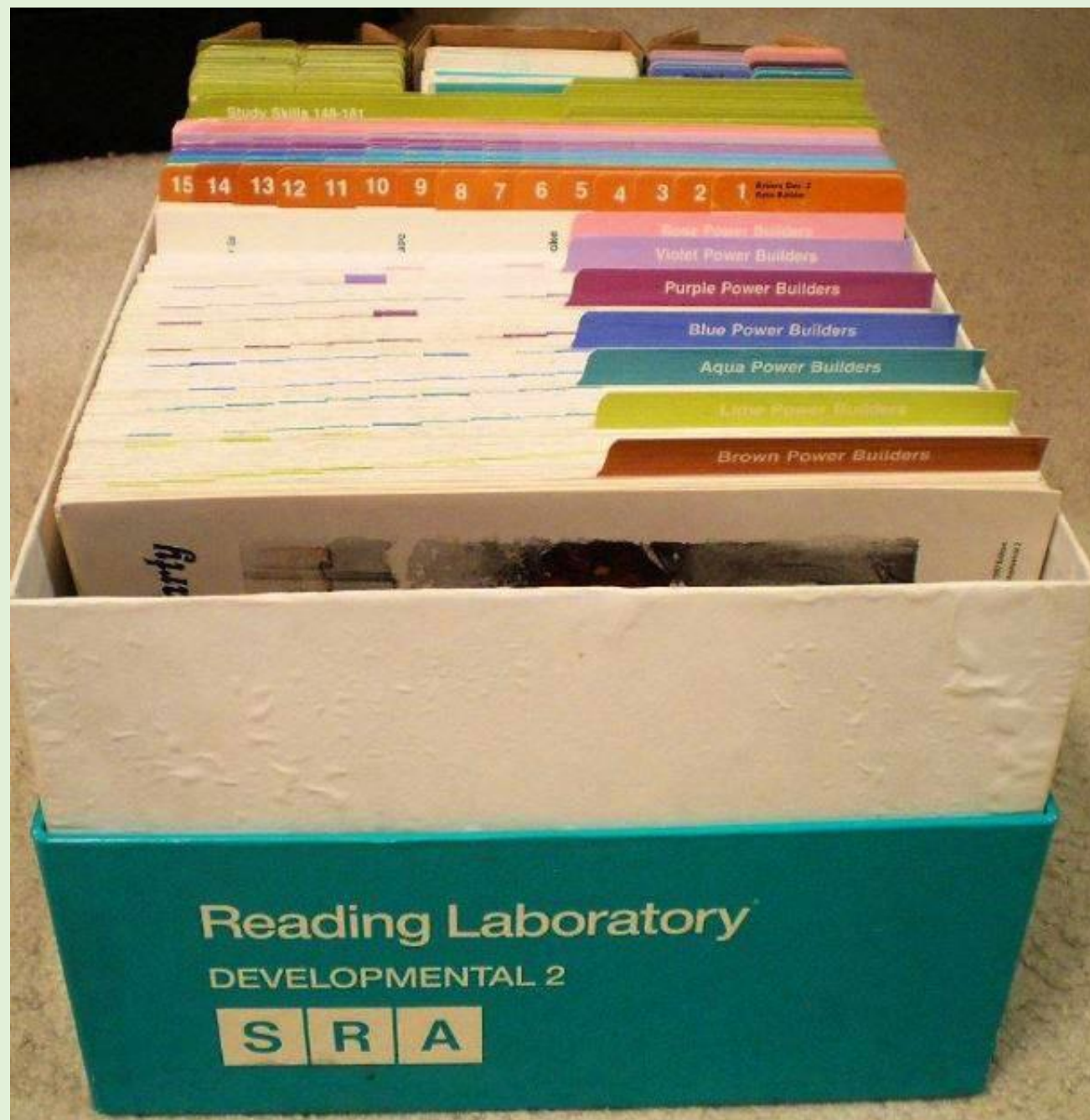


1985.... v1
1987.... v2

1983 – 1987

High School Healdton, Oklahoma



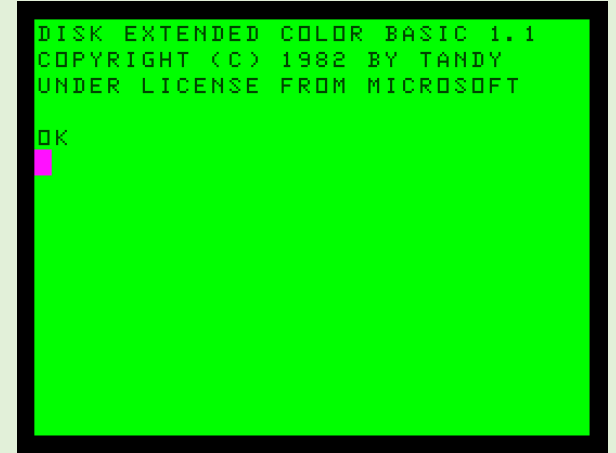


1983 – 1987



```
64K RAM SYSTEM 38911 BASIC BYTES FREE
READY.
LIST
READY.
LOAD "THIEF",8
SEARCHING FOR THIEF
LOADING
READY.
LIST -20

1 REM*****
2 REM**      WRITEN BY BYRON STOUT      **
3 REM**      MARCH 1984                **
4 REM*****
10 PRINTCHR$(147):POKE53280,4:POKE53281,
4:PRINT:PRINT:PRINT:PRINT
20 PRINT"
:PRINT:PRINT:PRINT:PRINT
READY.
```



- VIC-20
- Commodore 64
- TI 99 4/A
- Apple][
- TRS-80
- TRS-80 Color Computer
- Tandy 1000



```
KEY IS FUNCTIONAL.
** DONE **
>820 PRINT "E/I= STARTS ARROW
MOVING UP": "Q/Y=INVERTS PLA
YING FIELD":
>830 PRINT "AFTER **E**/**I*
* IS PRESSED, NO": "KEY IS FU
NCTIONAL."
>RUN
E/I= STARTS ARROW MOVING UP
Q/Y=INVERTS PLAYING FIELD
AFTER **E**/**I** IS PRESSED
, NO
KEY IS FUNCTIONAL.
** DONE **
>820 PRINT "E/I= STARTS ARROW
MOVING UP": "Q/Y= INVERTS PL
AYING FIELD": "AFTER **E**/**
*I** IS PRESSED, NO": "KEY IS
```

READY.

LOAD "\$",8

SEARCHING FOR \$

LOADING

READY.

LIST

0 " 101 TIPS " 01 2A

1 " DIRECTORY " SEQ

8 " MENU" PRG

```
20      "KEN"                                PRG
```

```
2      "CREATE.TBLE"      PRG
```

```

C001      "MONTH_Q&A"                                PRG

```

"LEADERSHIP" PRG

```
1  "PRINT CODE GROUP" PRG
2  HOS SECOND  TIMEH  PRO
```

```
1  "60 SECOND TIMER"  PRG
1  HEADJOB            PRG
```

```
1  "FACTOR" PRG
2  URGENTAGECH DRG
```

"PERCENTAGES" PRG:
UNDERBERGER DRG:

```
1 BREAK "REVERSE" PRG
```

BEFORE

READY.

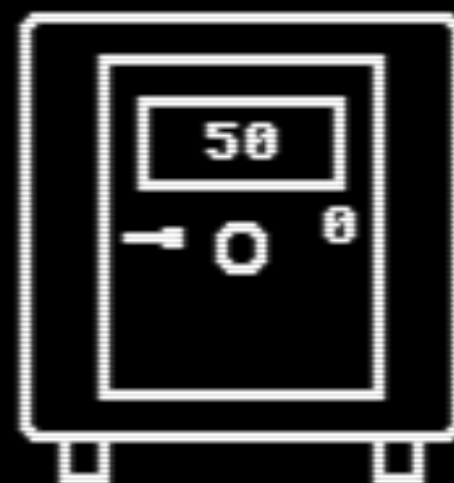
```
OPEN 15,8,15,"N0:MYDISK,01":CLOSE 15
```

THIEF

PRESS <RETURN>

EARNINGS \$ 0

209



BOOKS

PRESS ☐ TO ENTER BOOKS.

PRESS ☐ TO VIEW BOOKS.

YOU ARE APPROCHING A HOUSE
THERE MIGHT BE SNIPERS.
DO YOU WANT TO CHECK? YES

SURE ENOUGH, AROUND THE CORNER OF THE
HOUSE WERE TWO OF THEM
CHOICES
1. FIGHT
2. RUN
WHAT WILL YOU DO? ■

BLACK JACK 13

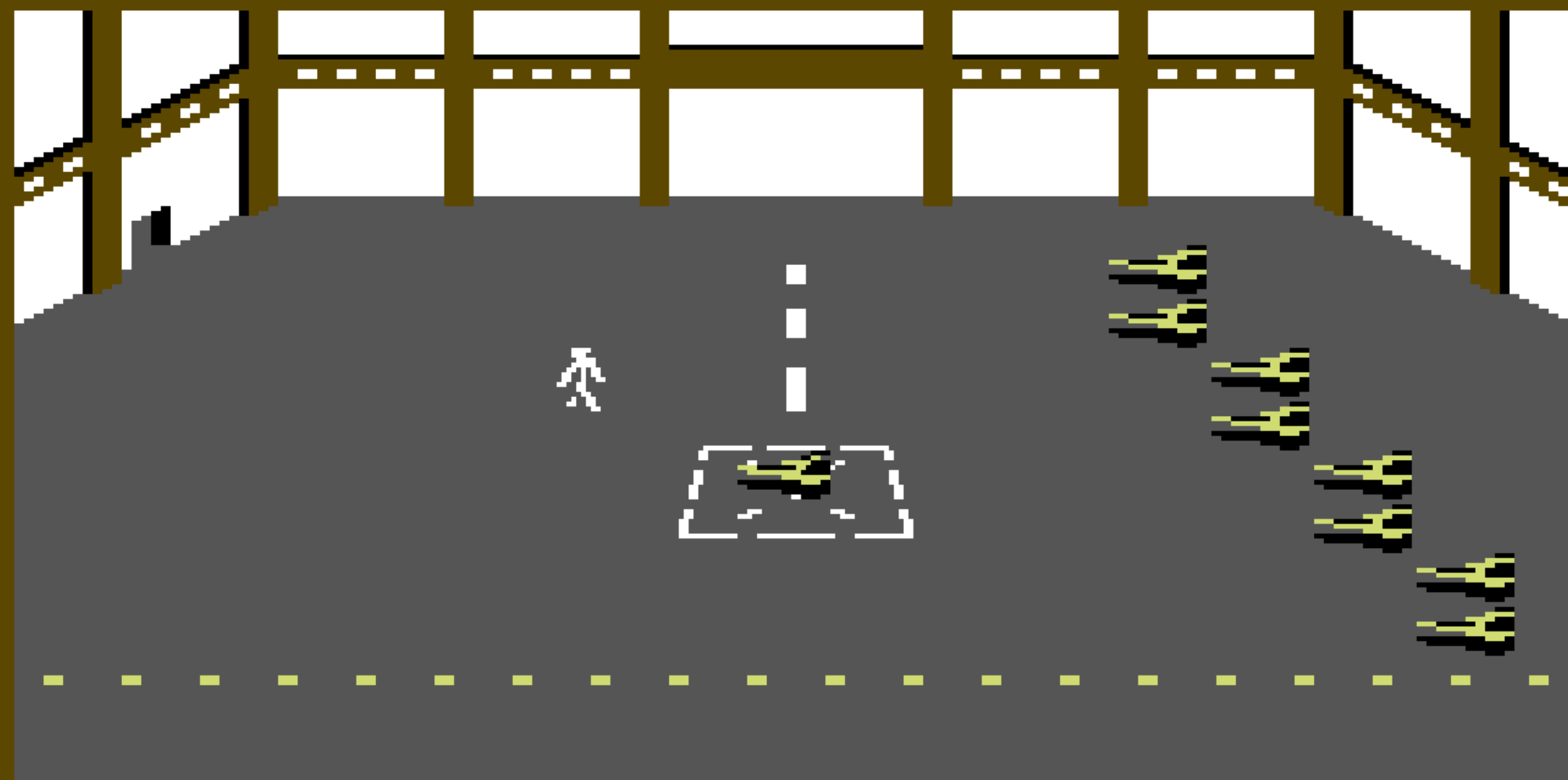
BY : BYRON STOUT

PRESS (SPACE BAR) TO CONTINUE

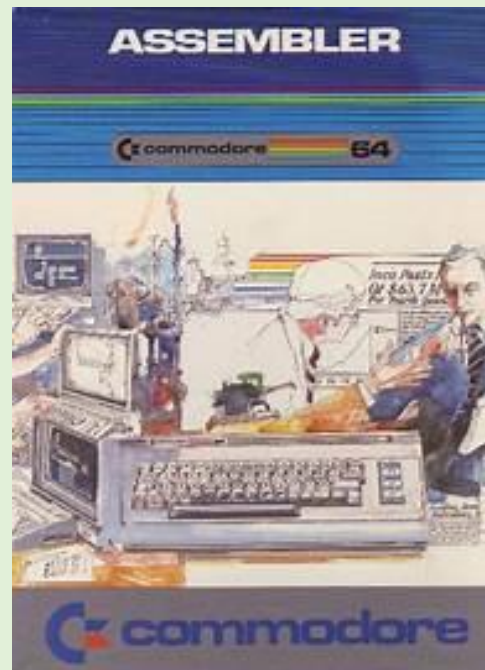


THE DOCTOR HAS 3 TRIES LEFT
BEFORE THE DERILECTS ATTACK!!

WHICH ONE (1-5)? ■



VELOCITY	X	00	K/H	COORDINATES	X	000	M
	Y	00	K/H		Y	000	M
	VERT	00	K/H	ALTITUDE		00	M
TIME TO IMPACT: 07:21.4							
AIRCRAFT	▲	▲	▲	▲	▲	▲	▲
SCORE: 16100							





C O M M O D O R E

E D U C A T I O N A L

S O F T W A R E

P R E S S S P A C E B A R O R W A I T

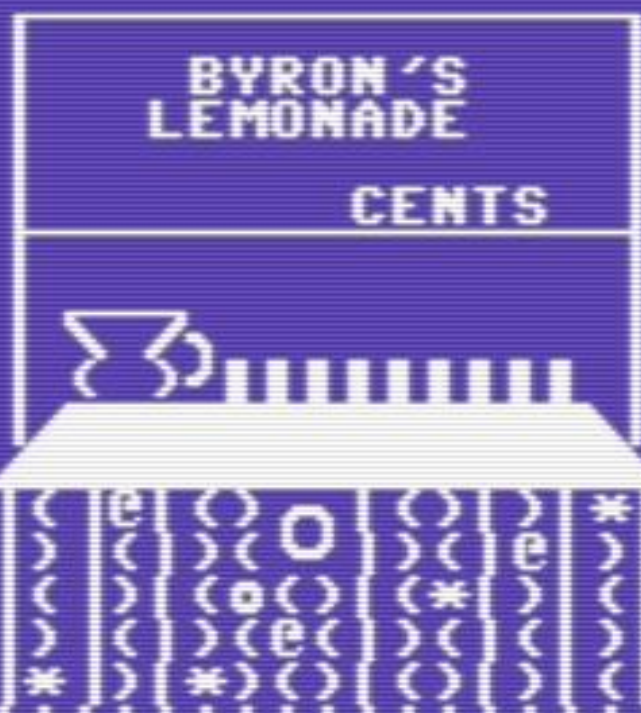
MENU

1. BEGIN LEMONADE
 2. STUDENT INSTRUCTIONS
 3. TEACHER INSTRUCTIONS
 4. QUIT
-

PRESS A NUMBER KEY (1-4)

LEMONADE

WEEK NUMBER 1



YOU HAVE:

1	\$ 10.00	
2	KG. SUGAR	
3	L. CONC.	
	CUPS	

WEATHER:

PREDICTION FOR SATURDAY:

TEMPERATURES IN THE 70'S AND LOW HUMIDITY

SUGAR IS \$ 1.06 FOR A 5-KILO BAG.
HOW MANY BAGS DO YOU WANT TO BUY?

HELP - PRESS H <RETURN>

BUY A GLADIATOR

GLAD#	1	2	3	4
STR:	10	2	1	4
SPD:	7	3	19	20
BODY:	8	3	2	15
COST:	40	13	36	64

ENTER YOU CHOICE (1-4) OR 0 TO SEE MORE
WHAT IS YOUR CHOICE? █

ARE YOU A V[ISITOR] OR A C[ITIZEN]?

!! WELCOME VISITOR !!

WHAT IS YOUR NAME? BYRON

* THE CITIZENS LEAGUE GRANTS YOU *
* 100 KUBITS SO YOU MAY PARTICIPATE *
* IN THE GLADIATOR GAMES *

HIT THE E KEY TO CONTINUE

commodore 64

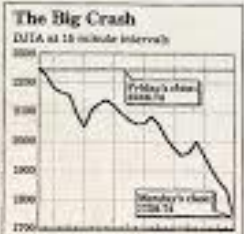
POWER



1987 – 1991 Notable World Events

The Crash of '87

Stocks Plunge 508 Amid Panicky Selling



- ✓ Nintendo Entertainment System launches
- ✓ US Stock Market Crash of 1987
- ✓ Soviets withdraw from Afghanistan
- ✓ China Tiananmen square protests
- ✓ Berlin wall comes down
- ✓ Exxon Valdez oil spill
- ✓ Iraq invades Kuwait
- ✓ Operation Desert Storm
- ✓ Hubble space telescope launches (with flawed mirror)

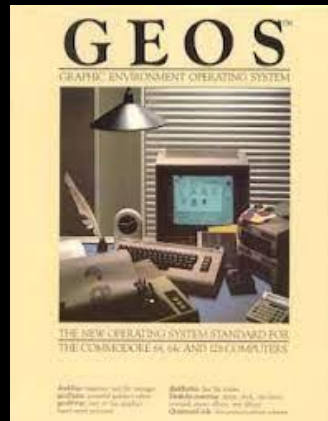
1987 – 1991 in PC Operating Systems



1988.... v4
1991.... v5



1987...System 5
1989...System 6
1991...System 7



1988.... v2 (64)
1989...v2 (128)
1990...IBM PC



1985.... v1
1990.... v2



1988.... v1.1
1990.... v1.3



1990.... V3.0

1987 - 1991



- Commodore 64
- IBM PC / Clones
- Macintosh
- Amiga





1991 – 1994 Notable World Events



- ✓ Jeffrey Dahmer arrested
- ✓ OJ Simpson car chase
- ✓ Grunge
- ✓ Rodney King beating / riots
- ✓ Bill Clinton elected
- ✓ Mall of America opens
- ✓ Pentium processor introduced
- ✓ Beanie babies
- ✓ California earthquake

1991 – 1994 in PC Operating Systems



Montgomery
GI★Bill



**Southeastern Oklahoma
State University**



The
VAX
Cave

DEC VT320 Terminals

IBM
PS/2
table



The VAX Cave



<https://paulroberts69.wordpress.com/2019/09/03/dec-vax-nostalgia/>

```
$ show system
OpenVMS V7.3 on node VAX 31-DEC-2020 23:10:02.28 Uptime 0 00:00:45
  Pid   Process Name   State Pri    I/O      CPU      Page flts  Pages
00000201 SWAPPER        HIB    16      0  0 00:00:00.14      0      0
00000205 CONFIGURE      HIB     8      5  0 00:00:00.02     112    175
00000206 LANACP        HIB    13     54  0 00:00:00.10     372    537
00000208 IPCACP        HIB    10      6  0 00:00:00.03      99    177
00000209 ERRFMT        HIB     9     17  0 00:00:00.05     130    211
0000020B OPCOM       HIB     9     37  0 00:00:00.08     201    251
0000020C AUDIT_SERVER  HIB     9     43  0 00:00:00.16     564    742
0000020D JOB_CONTROL  HIB     8     15  0 00:00:00.04     191    342
0000020E SECURITY_SERVER HIB    10     22  0 00:00:00.19     740   1204
0000020F SYSTEM       CUR     7     93  0 00:00:00.41     837    546
```

```
$ show time
  31-DEC-2020 23:10:05
$ set def [000000]
$ dir
```

Directory SYS\$SYSROOT:[000000]

DATEI.TXT;2	DATEI.TXT;1	MOM\$SYSTEM.DIR;1	SYS\$I18N.DIR;1
SYS\$LDR.DIR;1	SYS\$STARTUP.DIR;1	SYSCBI.DIR;1	SYSCOMMON.DIR;1
SYSERR.DIR;1	SYSEXEC.DIR;1	SYSHLP.DIR;1	SYSLIB.DIR;1
SYSMAINT.DIR;1	SYSMGR.DIR;1	SYSMMSG.DIR;1	SYSTEST.DIR;1
SYSUPD.DIR;1	TCPIP\$ETC.DIR;1	TNT.DIR;1	

Total of 19 files.

Directory SYS\$COMMON:[000000]

DECW\$DEFAULTS.DIR;1	MOM\$SYSTEM.DIR;1	SYS\$I18N.DIR;1	SYS\$KEYMAP.DIR;1
SYS\$LDR.DIR;1	SYS\$STARTUP.DIR;1	SYS\$ZONEINFO.DIR;1	SYSCBI.DIR;1
SYSERR.DIR;1	SYSEXEC.DIR;1	SYSFONT.DIR;1	SYSHLP.DIR;1
SYSLIB.DIR;1	SYSMAINT.DIR;1	SYSMGR.DIR;1	SYSMMSG.DIR;1
SYSTEST.DIR;1	SYSUPD.DIR;1	TCPIP\$LIB.DIR;1	TNT.DIR;1
VUE\$LIBRARY.DIR;1			

Total of 21 files.

Grand total of 2 directories, 40 files.

\$ █

```
$ JCP SHOW LINKS
Link JOB      Connect -- JOB      Line virtual NOH NOD NOT
Link PRT      Connect -- QUE      Line virtual NOH NOD NOT
Link CLOUDY   Connect -- DNANJE   Line CLOUDY   NOH NOD NOT
Link FEDACH   Connect -- TCPNJE   Line UCX      NOH NOD NOT
Link IMPVAX   Connect -- DNANJE   Line IMPVAX   NOH NOD NOT
Link NJEVX1   Connect -- TCPNJE   Line UCX      NOH NOD NOT
Link NJEVX2   Connect -- TCPNJE   Line UCX      NOH NOD NOT
Link TSTVAX   Connect -- DNANJE   Line TSTVAX   NOH NOD NOT
Link VAXSTN   Connect -- DNANJE   Line VAXSTN   NOH NOD NOT
Link XLVII    Connect -- DNANJE   Line XLVII    NOH NOD NOT
Link TSVMSA   Connect -- DNANJE   Line TSVMSA   NOH NOD NOT
Link TSMVST   Connect -- DNANJE   Line TSMVST   NOH NOD NOT
Link TSVMSZ   Active  -- DNANJE   Line TSVMSZ   NOH NOD NOT
$
$ SEND/COMMAND XLVII "CPQ IND"
$
(XLVII) - VAX 8650 running VAX/VMS V4.7
$
(XLVII) - Up since 14-APR-2020 01:10
$
$ █
```

B:DENO PAGE 1 LINE 1 COL 01

www For maximum help (full menu display),
select Help Level 3 by typing ^JH3.
This message will clear when a key is pressed.

To: John Slocum, President, Galaxy Bicycles
From: Susan Thorpe, Director of Marketing
Subject: Marketing Strategy for the 1980's

John,

The continuing decline in the sales of our most expensive bicycle, the Orion, reflects a growing trend in the market at large.

The following chart reflects the trend. Sales have declined steadily since 1979 while Galaxy's share of the market has remained constant - an indication of changing consumer demand.

ORION SALES VERSUS MARKET SHARE

Help and	Print	Copy and	Format	8	1	General	Cursor	Margins	File and
Notes	Comments	Move	and Find			Editing	Movement	and Tabs	Exit
			Run Pad						

20:25

PASCAL PROGRAMS

Data Structures

Computer Organization

Database Analysis

DR, BOB



DS HD
2.0 Mb/2.0 Mb

3M

The BOX.PAS Library

	0	1	2	3	4	5	6	7	8	9	A	B	C	D	E	F
B					├	┤	┥	┦	┧	┨	┩	┪	┫	┬	┭	┮
C	┰	┱	┲	┳	┴	┵	┶	┷	┸	┹	┺	┻	┼	┽	┿	┾
D	┼	┽	┿	┾	┿	┾	┼	┼	┼	┼	┼	■	■	■	■	■

Checkbook & Budget Management System
Version 2.0 03/25/93
Copyright (C) 1993 WordPerfect Corporation
All Rights Reserved

BANK ACCOUNT / BUDGET DATA

Add / View Bank Accounts .. [1]
Generate Budget Categories [2]
View / Edit Budgets [3]
View / Edit Creditors List [4]
Set Account Preferences ... [5]

MAKE A TRANSACTION

Enter Checks into Register [6]
Make Deposit to an Account [7]
Account Reconciliation [8]

REPORTS TO PRINTER / DISK FILE

Account Listing [11]
Taxable Income/Deductibles .. [12]
Budget Summary To Date [13]
Print Checks [14]

NOTICES / MAINTENANCE

Definer's Notice [16]
How to Create a New Account . [17]
Remove a Single Account [18]

NU
QU
RTD
SD
SF
SI
TM
TS
UD
VL
WIP
WIP
FIL
NU
REA

Pre
(co
C:\N
Nor

Norton Control Center

Video Mode

Select Item

Cursor Size
DOS Colors
Palette Colors
Video Mode
Keyboard Rate
Serial Ports
Watches
Time and Date

25 x 80 black and white

√ 25 x 80 color

40 x 80 color

50 x 80 color

F1 for Help

C:\ Name
DOS
NC
autoexec bat
command com
config sys
Io sys
Msdos sys
wina20 386

wina20.386 9349 5-31-94 6:22a

C:\N
Name

Name

C:\ Name

C:\NC

Name

Name

..	datex	p	nc	ini
123view exe	dbview	exe	nc	msg
4372ansi set	dir2dir	exe	nc_exit	com
8502ansi set	draw2wmf	exe	nc_exit	doc
8632ansi set	drw2wmf	exe	ncclean	exe
8652ansi set	evileye	nss	ncclean	ini
8662ansi set	faces	nss	ncdd	exe
ansi2437 set	fish	nss	ncdd	msg
ansi2850 set	flip	nss	ncedit	exe
ansi2863 set	genie	scx	ncedit	msg
ansi2865 set	ico2dib	exe	ncff	exe
ansi2866 set	mouse	nss	ncff	hlp
arcview exe	msp2dib	exe	ncff	msg
bitmap exe	nc	cfg	nclabel	exe
bug nss	nc	exe	ncmain	exe
bungee nss	nc	fil	ncnet	exe
clp2dib exe	nc	hlp	ncnet	msg
cmpsrv scx	nc	ico	ncpscrip	hdr

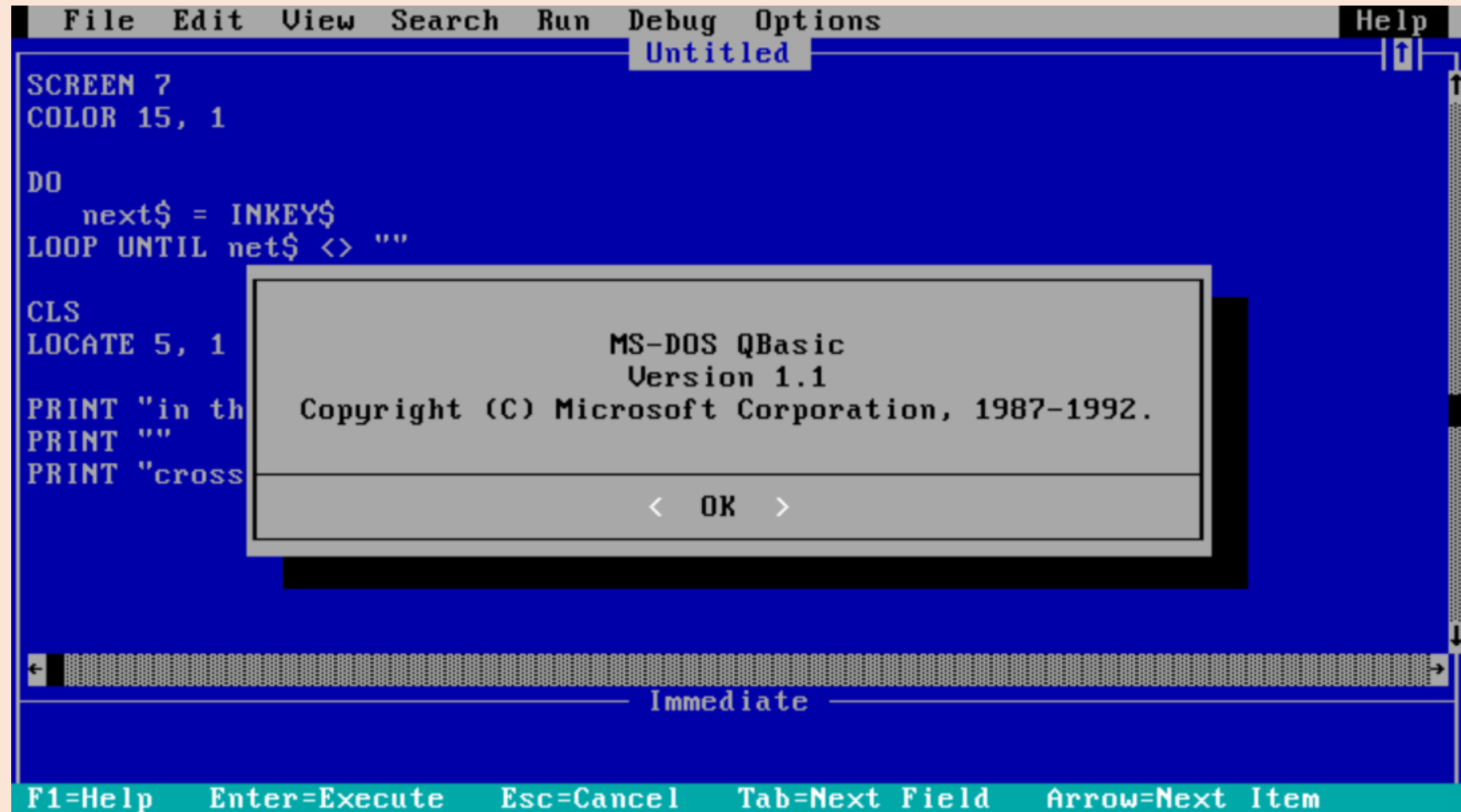
.. UP--DIR 7-21-17 3:31p

C:\NC>

1Help 2Menu 3View 4Edit 5Copy 6RenMov 7Mkdir 8Delete 9PullDn 10Quit

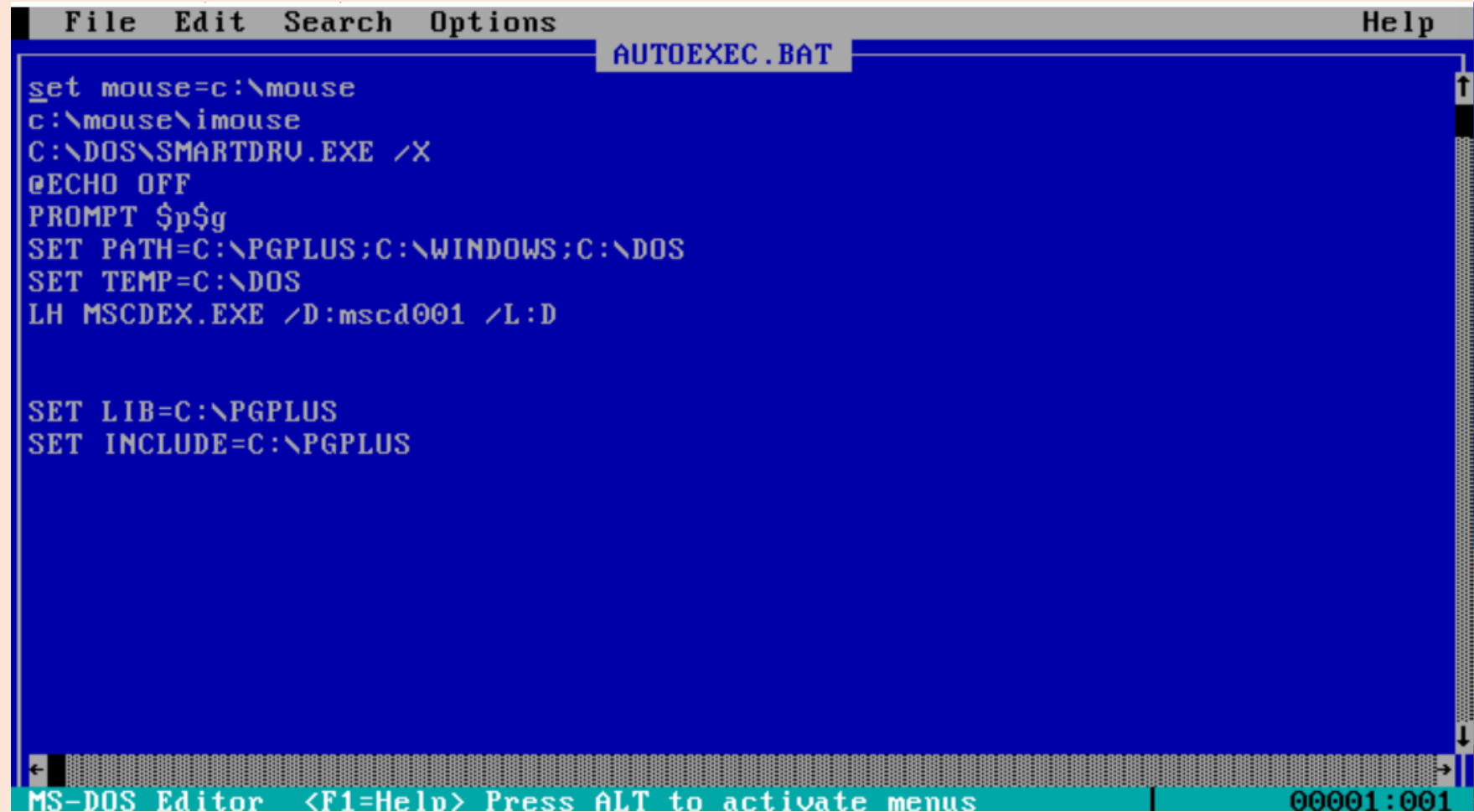
MS-DOS QBasic

- Shipped with MS-DOS 5 (1991)
- Replaced GWBASIC
- First MS Structured Basic Dialect



MS-DOS Editor

- Shipped with MS-DOS 5 (1991)
- Replaced EDLIN
- Hot Keys
- Mouse Support
- Essentially a QBasic Shell



The screenshot shows the MS-DOS Editor window with the menu bar (File, Edit, Search, Options, Help) and the title bar (AUTOEXEC.BAT). The main text area is blue and contains the following batch script:

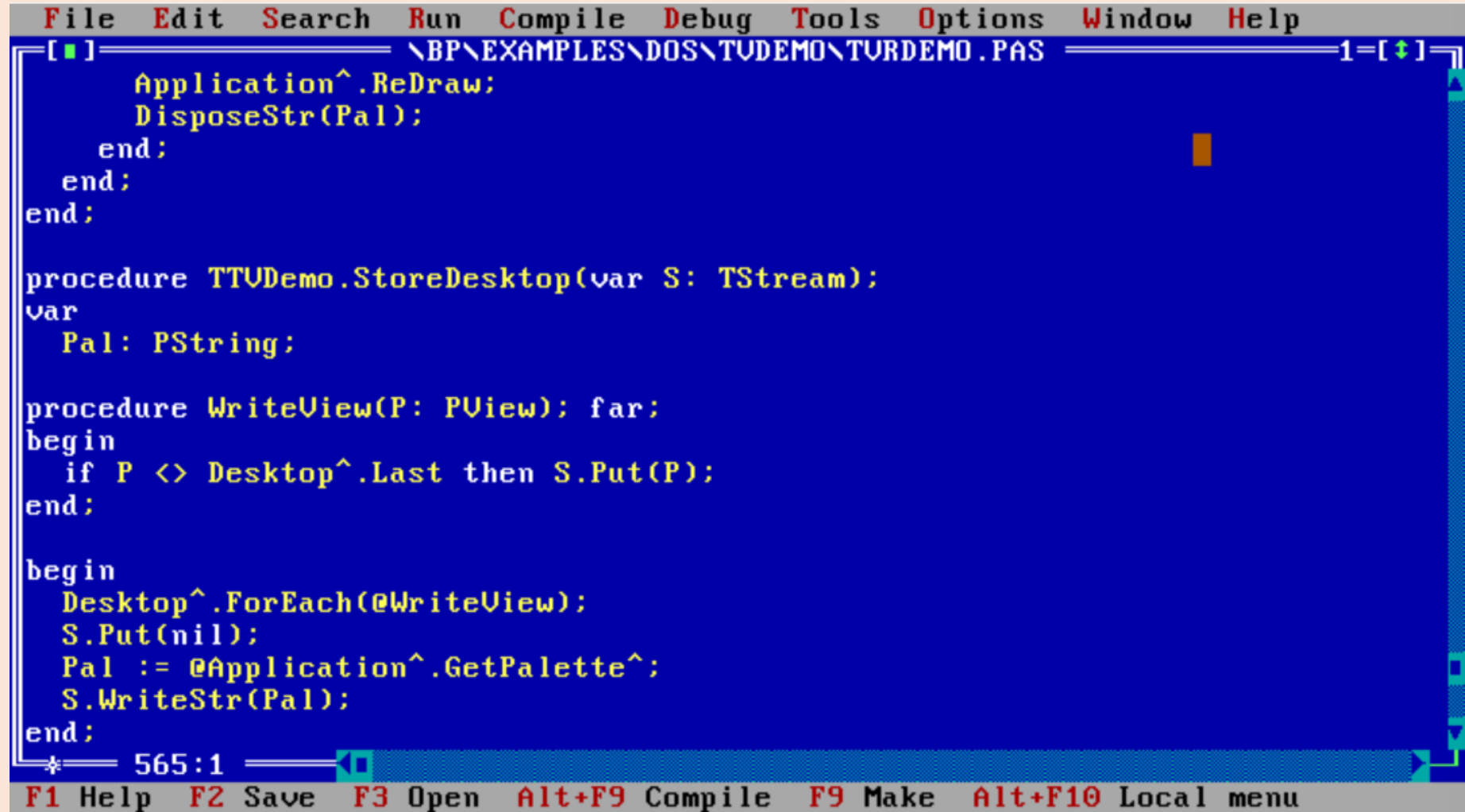
```
set mouse=c:\mouse
c:\mouse\imouse
C:\DOS\SMARTDRV.EXE /X
@ECHO OFF
PROMPT $p$g
SET PATH=C:\PGPLUS;C:\WINDOWS;C:\DOS
SET TEMP=C:\DOS
LH MSCDEX.EXE /D:mscd001 /L:D

SET LIB=C:\PGPLUS
SET INCLUDE=C:\PGPLUS
```

The status bar at the bottom is green and displays "MS-DOS Editor <F1=Help> Press ALT to activate menus" on the left and "00001:001" on the right.

Borland Turbo Pascal

- Initial Release 1983
- V5.5 introduced Object Oriented Programming (1989)
- Rolled into Borland Pascal for Windows



```
File Edit Search Run Compile Debug Tools Options Window Help
\BP\EXAMPLES\DOS\TUDemo\TURDEMO.PAS 1=[+]
```

```
Application^.ReDraw;
DisposeStr(Pal);
end;
end;
end;

procedure TTUDemo.StoreDesktop(var S: TStream);
var
  Pal: PString;

procedure WriteView(P: PView); far;
begin
  if P <> Desktop^.Last then S.Put(P);
end;

begin
  Desktop^.ForEach(@WriteView);
  S.Put(nil);
  Pal := @Application^.GetPalette^;
  S.WriteString(Pal);
end;

* 565:1
```

```
F1 Help F2 Save F3 Open Alt+F9 Compile F9 Make Alt+F10 Local menu
```

TUI

Text-based User Interface

https://en.wikipedia.org/wiki/Text-based_user_interface

Borland Turbo Vision

- Initial Release 1990
- Library shipped as a Bonus Disk
- Used internally to Build Turbo Pascal and C++



TURBO VISION™

PROGRAMMING GUIDE

■ TUTORIAL

■ USING TURBO VISION

■ REFERENCE

B O R L A N D

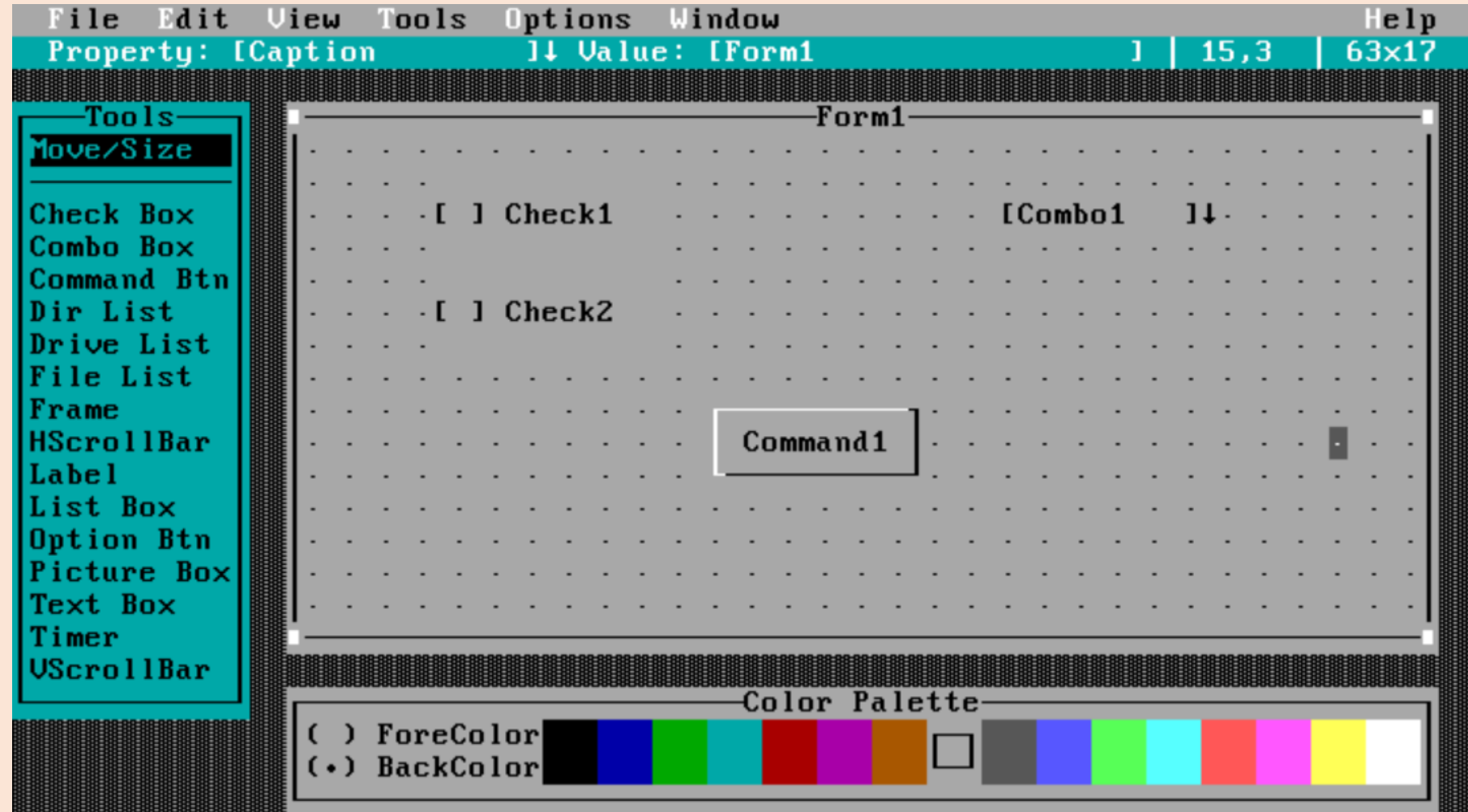
640 Pages...

Listing 1.6 shows an *InitMenuBar* method that declares a menu bar with items for opening and saving files.

```
procedure TTutorApp.InitMenuBar;  
var R: TRect;  
begin  
  GetExtent(R);  
  R.B.Y := R.A.Y + 1;  
  MenuBar := New(PMenuBar, Init(R, NewMenu(  
   NewItem('~N~ew', '', kbNoKey, cmNew, hcNew,  
   NewItem('~O~pen...', 'F3', kbF3, cmOpen, hcOpen,  
   NewItem('~S~ave', 'F2', kbF2, cmSave, hcSave,  
   NewItem('Save ~a~s...', '', kbNoKey, cmSaveAs, hcSaveAs,  
    NewLine(  
    NewItem('E~xit', 'Alt+X', kbAltX, cmQuit, hcExit,  
    nil))))))));  
end;
```

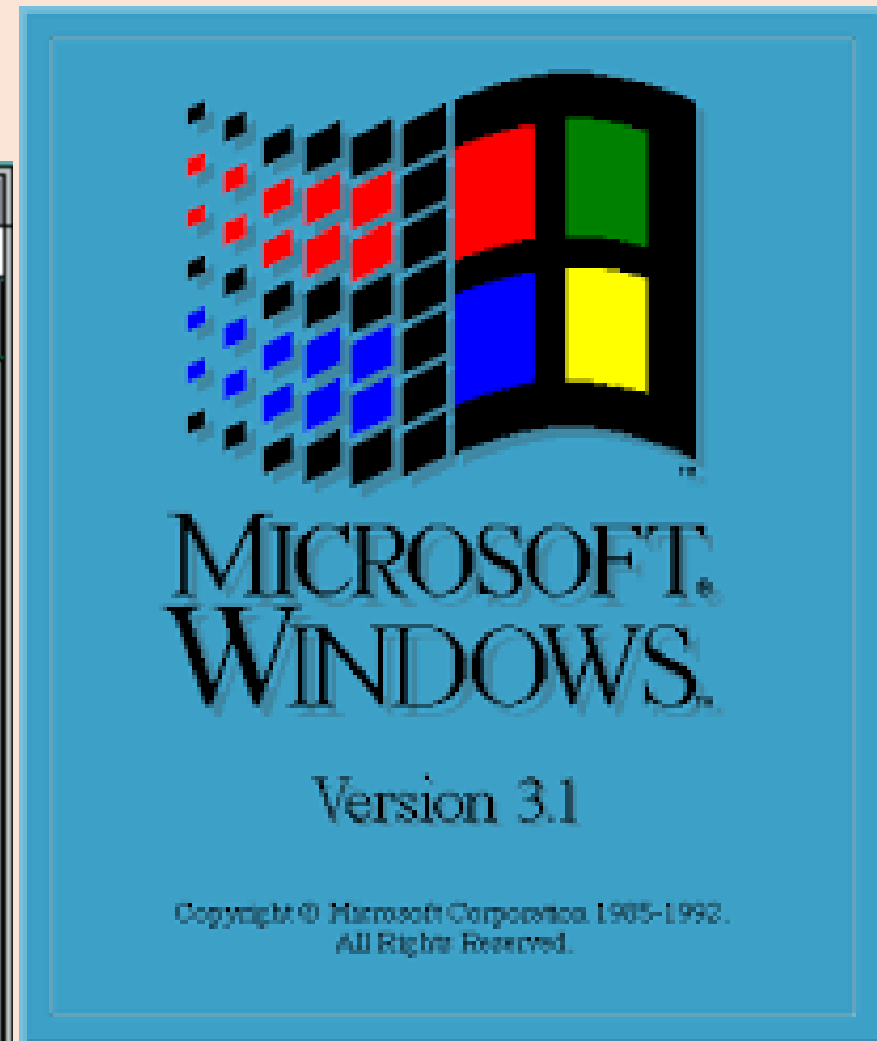
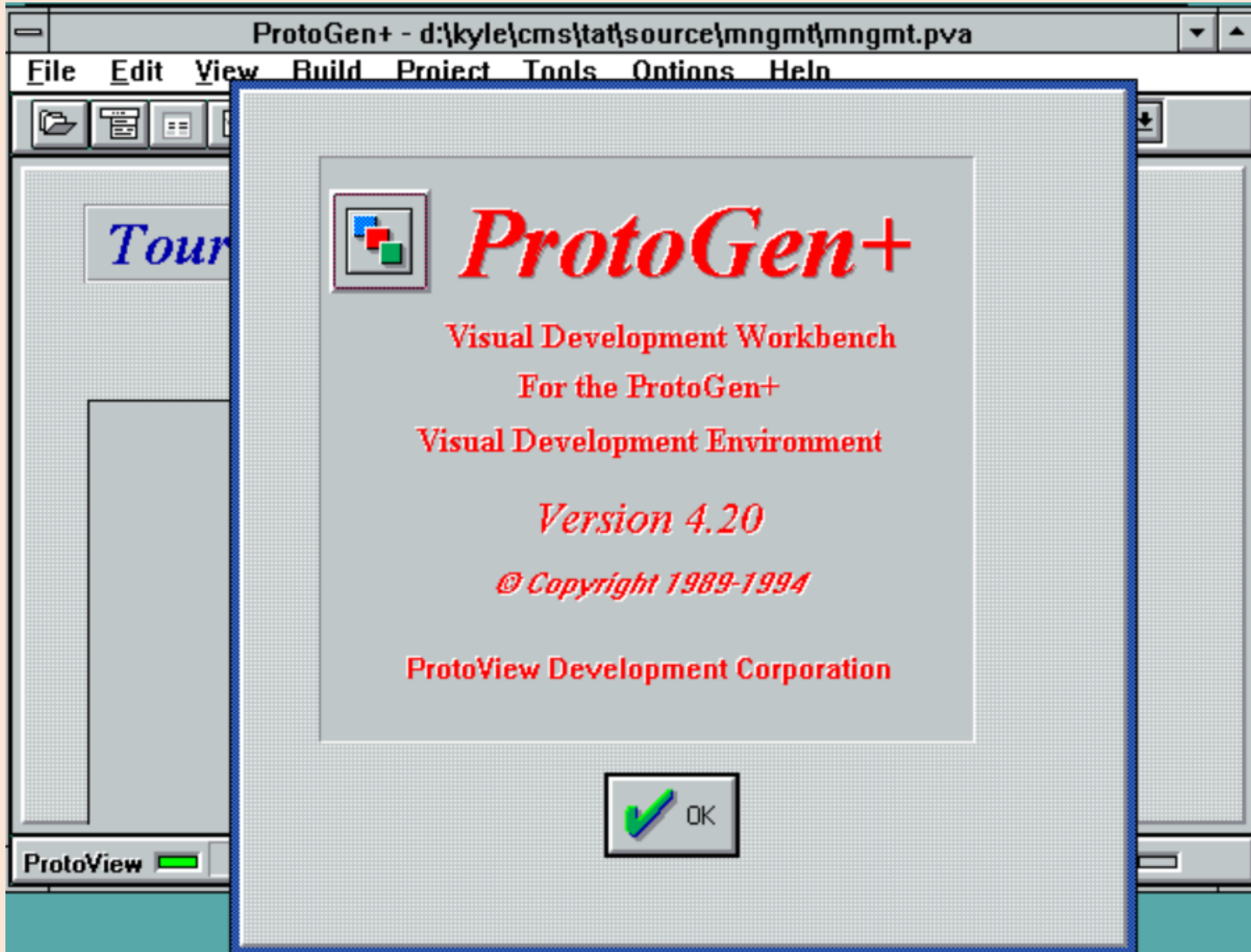
Visual Basic For DOS

- Released 1992
- Succeeded QuickBasic
- Mashup of prototype tool built by Alan Cooper and a coding language

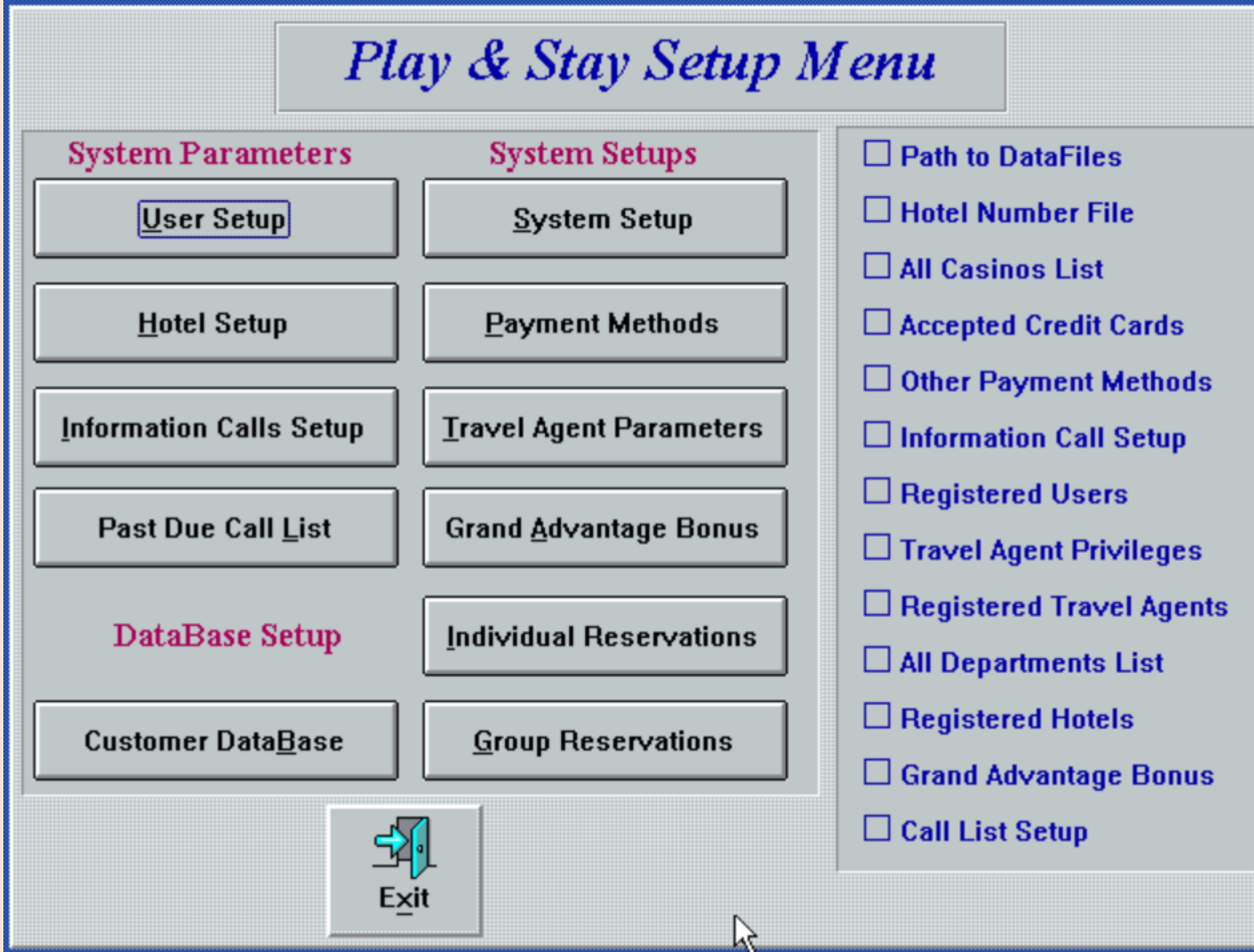




ISC
Durant, Oklahoma



- Modals (no MDI)
- Crazy Button Sizes
- Fonts...
- Icons...
- No Standards...



Confirmation #

Reservation Summary

Group Name:

Guest Last Name:

Guest First Name:

Hotel:

Arrival Date:

00-00-0000

Arrival Day:

Which Casino Will The
Guest Visit?



Add Rooms



Payments



Coupons



Cancel Res

Cost of Rooms:

\$0.00

Deposit Due Date

00-00-0000

+ Tax:

\$0.00

Payment Due Date

00-00-0000

- Coupons:

\$0.00

Last Date To Cancel

00-00-0000

= Room Cost:

\$0.00

Penalty Amount

\$0.00

- Deposit Due:

\$0.00

= Final Payment

\$0.00

Previous Balance:

\$0.00

+ Total Cost:

\$0.00

= New Balance:

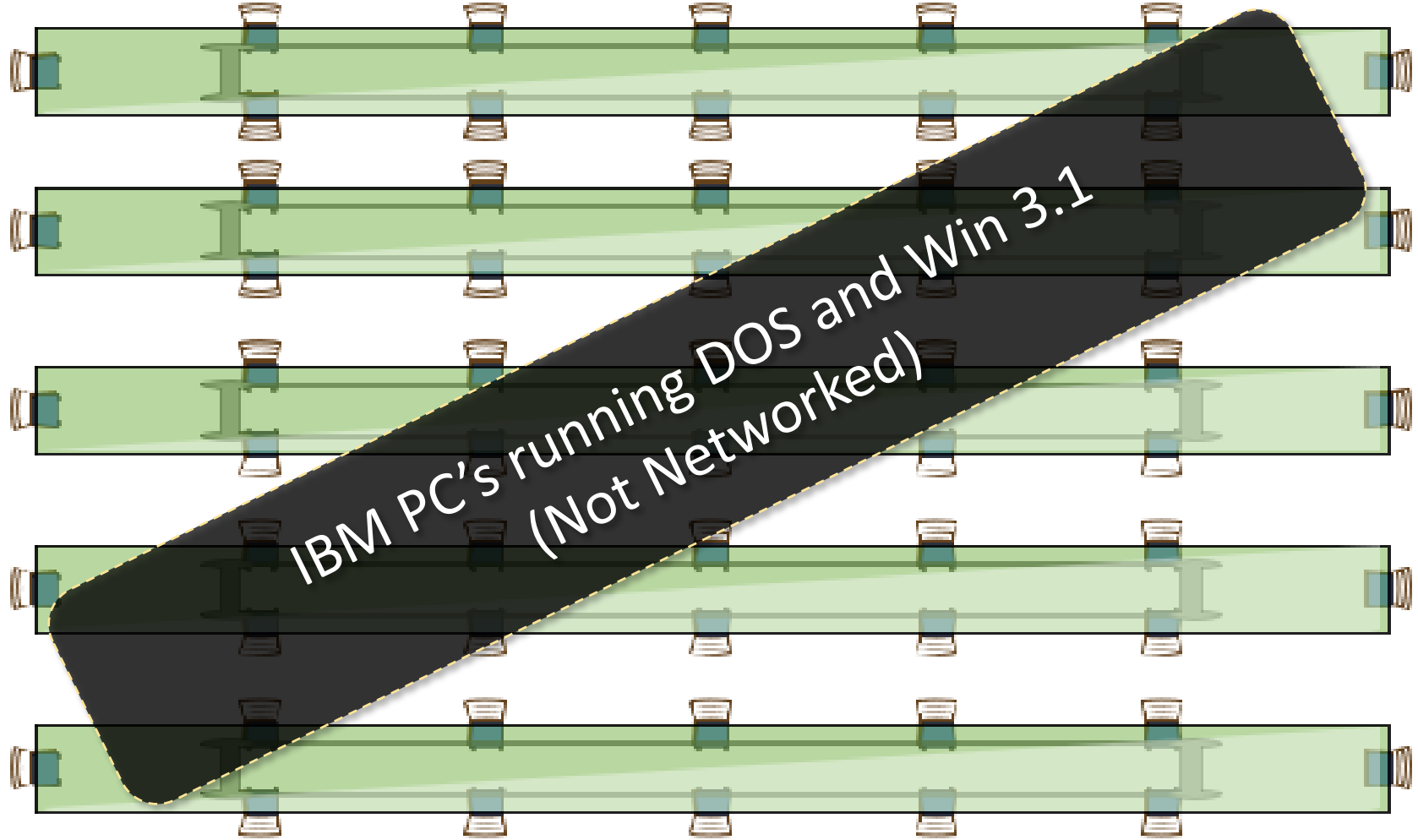
\$0.00

☐ Coupons Used

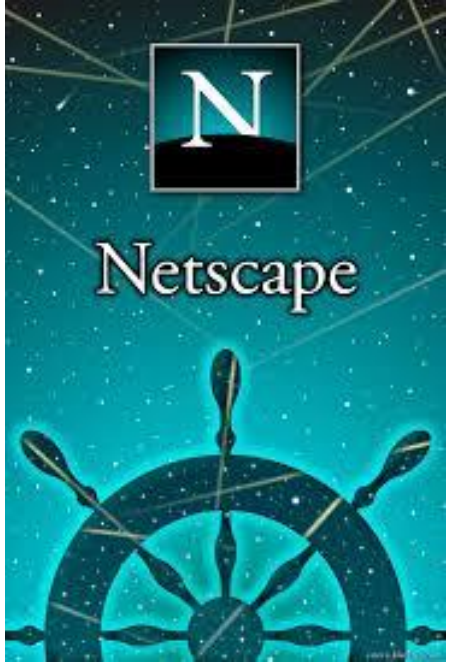
☐ Price Override

Lonely
VT320's

IBM PC's running DOS and Win 3.1
(Not Networked)

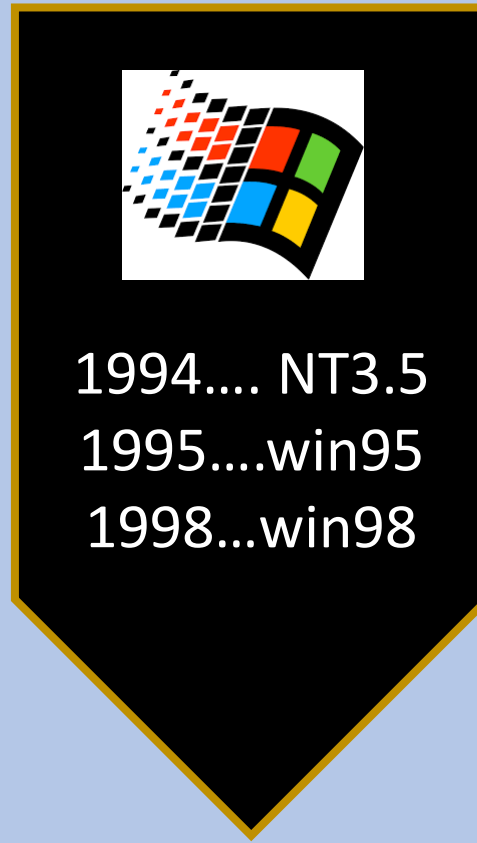


1994 – 1998 Notable World Events



- ✓ Oklahoma City Bombing
- ✓ Netscape Navigator and JavaScript introduced
- ✓ Deep Blue defeats Kasparov
- ✓ Mad Cow Disease
- ✓ Mars Pathfinder Rover
- ✓ Bird Flu in China
- ✓ Princess Diana death
- ✓ FDA approves Viagra
- ✓ Bill Clinton and Monica Lewinsky scandal

1994 – 1998 in PC Operating Systems





Grand Casinos, Inc. Plymouth, Minnesota

1991

Grand Casino Mille Lacs, MN

Grand Casino Hinkley, MN

1993

Grand Casino Gulfport, MS

Grand Casino Biloxi, MS

1994

Grand Casino Avoyelles, LA

1995

Grand Casino Coushatta, LA

1996

Grand Casino Tunica, MS

Guest Check Shift/Day Marker Report Void Exit

Date: 01/25/96 Time: 2:00:22 pm Marker Inquire Screen at CORP Office

GA Number: 14300

Name First: SUWATTANA Last: BROWN

Street: 4251 LAWRENCE STIENER Phone Number: (205) 973-0723

City: THEODORE State: AL Social Sec Number: - -

Zip: 36582- Country: USA

Driver Lic. Num: 23443 State Issued: MN

Credit Date:

Height: 0Ft. 0 In. Weight: 0 Date Active: 01/16/96

Sex: Unkno Glasses: N Last Active Date: 01/16/96

Hair Color: Eye Color: Last Id Check: 01/16/96

Date Rated: 05/27/93

Player Rating: NoRating

Comment:

Credit Requested: \$500.00 Deposit \$0.00

TTD Increase: \$0.00

Credit Limit: \$50,000.00

Credit Used CORP Office \$0.00

Credit Status: ACTIVE

Credit Avail: \$50,000.00

F9 to Exit

STRATOSPHERE HOTEL HIS

W01

Thu 03/28/96

UPDATE FOLIO

Folio Number: 8812 RESERVED

BALANCE DUE: .00

Arrival: 041696 Apr 16/96, Tue

Payment Code: 4P

Depart: 042196 Apr 21/96, Sun

Card Number:

of Adults: 2 Children:

Exp Date:

Room Type: WQ # Rms: 1

Credit Limit: .00

Room #: 30406

Deposit Amt: 59.40

Req By: 031796

Name: MILLER, CINDY MARY

Gtd: N Inc Folio: N

Company/Group:

VIP: N Tax Exempt: N

Address 1: 3820 HARRIET AVE SOUTH

Confirm: N

2: MINNEAPOLIS, MN

Specials:

3:

Postal Code: 55409

Phone: 612-827-7859

Repeat Guest: Y

Package Code: Amt: .00

Source: AP

Rate Code: G55 Amt: 55.00 Prt?: Y

Origin: ADA

Rate Chg Code: Amt: .00 On:

Track1:

Svc Charge: Discount:

2:

Remarks:

Cancellation #:

F1=Help F2=Avail F3=Room F4=Cancel F5=Tools F6=Links F7=Rates F8=Credit

NetWare v3.12 (100 user) - 8/12/93

NetWare 386 Loadable Module

Information For Server DUS-DEV-312

File Server Up Time:	2331 Days 10 Hours 33 Minutes 29 Seconds	
Utilization:	2	Packet Receive Buffers: 100
Original Cache Buffers:	7,569	Directory Cache Buffers: 82
Total Cache Buffers:	5,962	Service Processes: 2
Dirty Cache Buffers:	0	Connections In Use: 1
Current Disk Requests:	0	Open Files: 11

Available Options

- Connection Information
- Disk Information
- LAN/WAN Information
- System Module Information
- Lock File Server Console
- File Open / Lock Activity
- Resource Utilization
- Exit



Network Boot Protocol

BTRIEVE



Input Information - Select Second Screen

Casino	Date Booked	Generated By	Department	Origination Zip
	00/00/00			
Group Name	Group Contact	Contact Phone	Contact Fax	
		() -	() -	
Arrival Date	Arrival Day	Arrival Time	Departure Time	Pickup Time
		:	:	:
Passengers	Buses	Additional Requests		
Deposit Due By	Deposit Amount	Departure Address		
/ /	\$0			
Make Check Pay To	Promotions			
Mailing Address	City	State	Zip	

Next Screen

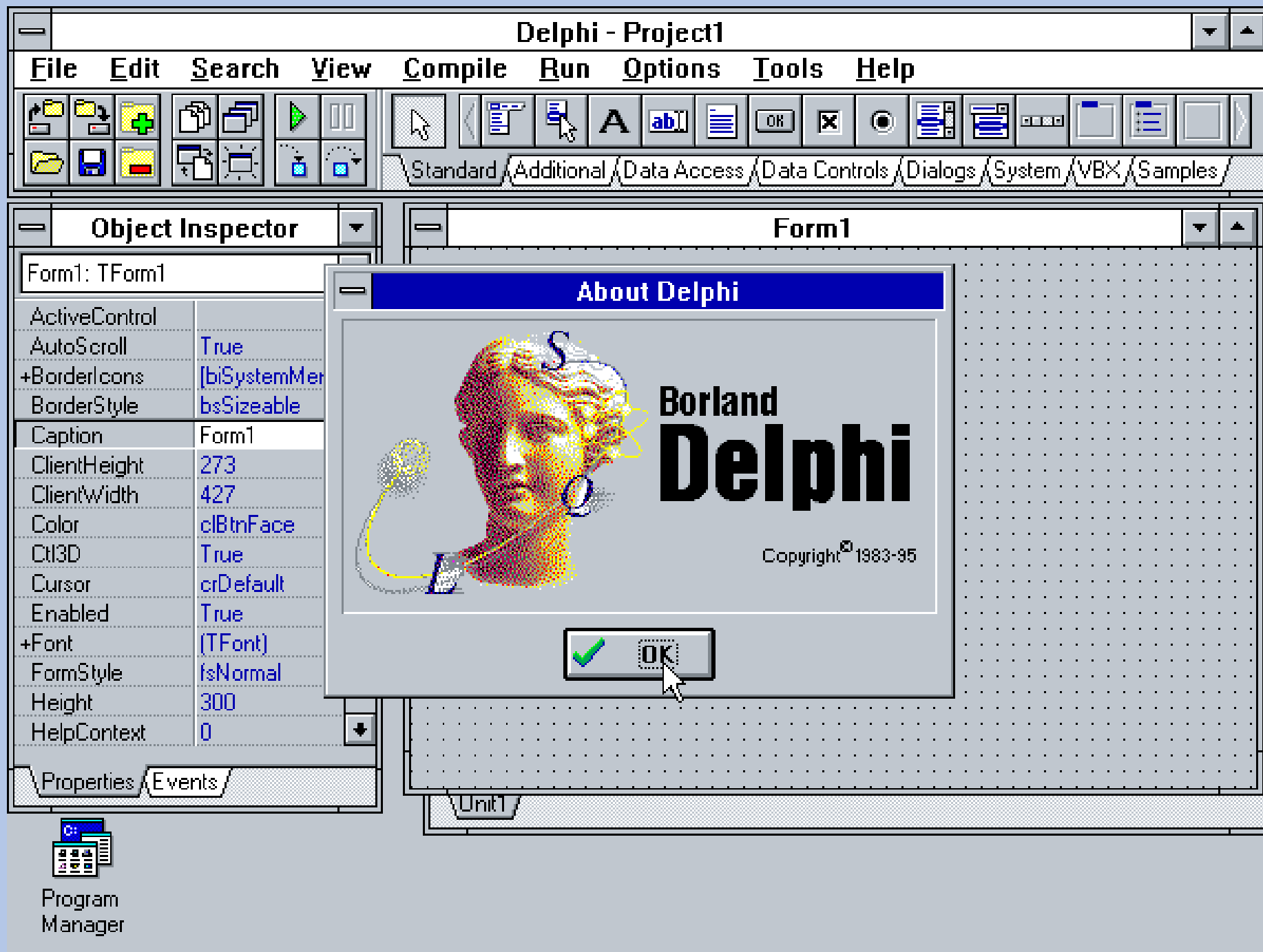
Print Conf. Form

Save & Exit

Hotel LookUp

Delete Tour







Grand Casino Software Research and Development

Systems Development Standards

10/11/95
(Revision 7 - 12/07/96)

Byron Stout
Manager of Software Research and Development

This document contains proprietary and confidential information about the Grand Casinos Systems Development Standards which is solely owned by Grand Casinos Inc and considered a private work which should not be released to companies or individuals who are not under disclosure with Grand Casinos.

Visual Design Guidelines

These design guidelines cover most situations for normal applications. Because of the myriad of application types, there may be specific situations that are not handled here. If an example or guideline is not available or does not cover the specific situation, the programmer should try to stay in the same spirit as the existing guidelines. In a case that differentiates greatly from the spirit of the guidelines, a group meeting should be held to discuss the proper appearance.

Placement of Controls

Forms should generally be laid out in order of functional operation, and then follow a left to right, up and down layout pattern. Controls and group boxes should be aligned to the left side of each other. In a properly designed form, the order of operation is apparent to the user based on the layout of the controls.

Controls on the forms (buttons, labels, edit boxes, list boxes, etc.) should be placed into functional groups and surrounded by group boxes so that the grouping is visually apparent to the user. However, you should only use group boxes when necessary and not waste resources when they are not necessary. Sets of Radio buttons should always be constructed using RadioGroup boxes. If check boxes relate to each other, they should be surrounded by a group box or placed on a panel.

The tab order of the form should follow the flow of the form and help accommodate the order in which data needs to be entered. When the form is first displayed, the focus should be placed on the first control that needs attention on the form. Usually either a button or an edit control, depending on the forms content.

The preferred format for labels and edit controls is a vertical placement aligned along the left sides. (This means that the label is placed above the edit control it is related to.) The label should not be more than 8 pixels above the edit control and not be closer than 3 pixels. It is acceptable to use 2 labels and break extremely long text onto the two lines when necessary.



Example of Edit Box Coloring

In certain situations it is acceptable to use alternative colors to bring the attention of specific data items to the users. These alternatives should be consistently applied throughout the application and radical alternations in the color patterns should be discussed with the group.

About Boxes and Splash Screens

Every application must have an about box that is selected by choosing the About menu item off of the Help menu. This dialog should display the name of the application, the version number, the version date, and the Grand Casinos copyright. The about box will not display the developers name directly on the screen, but 'easter eggs' may be programmed to display the developers names as long as the 'easter egg' is not extremely large, affects the application adversely, or displays derogatory statements.

If the application takes more than 6 seconds to load on a normal machine, then it must have a Splash Screen. The Splash Screen should be the standard splash screen dialog located in the SHARE directory.

Application Icons and Titles

Every application will have an application icon different from the default Delphi icon assigned to it. The icon should be descriptive of what the application does and should remain consistent for multiple versions. This means that cartoon and logo icons are not permitted. A library of icons is available in the SHARE directory.

Edit Tour Company



Company Name

Byron's Bus Company



OK



Cancel

Contact Person

Byron Stout

Address

somewhere

City

some state

State

MN

Zip

55446

Phone

557-6785

Fax

333

Email Address

Notes

This is
a note concerning Byron's
Bus Company.....

Insurance Information

Company Name

StateFarm

Contact Person

bob

Address

City

State

Zip

Phone

Fax

Email Address

Policy Number

333

Expiration Date

Policy Comments

no comment

Promotion Restrictions

Frequency Restrictions:

☐ One per customer per lifetime

One per customer per day(s)

Date Restrictions:

Setup Dates:

07-04-1995	Fourth of July	↑
11-23-1995	Thanksgiving Day	
12-25-1995	Christmas	
07-04-1996	fourth of july	
12-25-1996	Christmas	↓

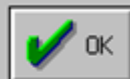
New

Add

Delete

Restricted Dates:

07-04-1996	fourth of july	↑
12-25-1996	Christmas	



Promotion Request Form

Promotion Name:

Department:

Contact Person:

Document Type:

Distribution Dates:

Start: 02-26-1996 15

End: 02-26-1996 15

Casinos

Casino

Account #

Add

Edit

Remove

Where Distributed:

Notes:

Definition:

Define

Link



Pact Voucher

Voucher Info

Additional Info

Program Info

Redeem/Cancel

Voucher Number

VY0AI0V90C43

Voucher Description

\$2 OFF BUFFET MEAL

Date Printed

2/27/96

Time Printed

10:37A

Voucher Cost

\$ 2.00

Expiration Date

2/28/96

Change Value

False



Close

Stratosphere Casino, Las Vegas, NV

April 29
1996



TICKETTRACKER

Stratosphere "Comp" Ticket
Tracking Software



A Grand Casinos Systems Group Application

Stratosphere Hotel and Casino

Version 1.01 November 1996

Reservations

File Reservation Setup

Last Name	First Name	Show Date	Show Time	Ticket Type	# Tics
SKORICH	GREGG	11/2/96	11:00:00 PM	Normal	2
DALY	JOHN	11/14/96	11:00:00 PM	Normal	4
STOUT	BYRON	11/20/96	11:00:00 PM	Normal	3
AARONSON	NEIL	11/20/96	12:00:00 PM	Special	4
ABBAS	ALI	11/21/96	10:00:00 PM	Normal	4
MORGAN	MATT	11/22/96	11:00:00 PM	Normal	2
ADREAS	SHANG	11/22/96	12:00:00 PM	Special	3
STUPAK	BOB	11/25/96	11:00:00 PM	Normal	2
BERMAN	LYLE	11/27/96	10:00:00 PM	Normal	5
RICHTER	JIM	11/28/96	10:00:00 PM	Normal	2
STACK	CLARITA	11/28/96			
O'BRYANT	MC	11/29/96			
RAAB	CHARLES	11/30/96			
DACANAY	ARACELI	11/30/96			
WILCOX	BILL	11/30/96			
QUACK	JULIE	12/18/96			

New Edit

Comp Ticket Tracker
Version 1.00 11/18/96

New Reservation

Guest Information

Last Name First Name

Folio # Room #

HIS...

OK Cancel

Ticket Information

Show Date Show Time Ticket Type # Tickets

Tics...

Payment Information

Method of Payment Comp Profile

Authorizer Name Authorizer # Dept Class

IDs...

Notes

Res Date By

11/25/1996

VCTicket

Vegas World Vacation Club
Ticket Package Database Software



Stratosphere Hotel and Casino

June 1996

Ticket Modification

Ticket #:

Package: Campaign: Mkt Ref #:

Name:
 Ord By:
 Address:
 City:
 State: ZIP:

Pkg Cost:
 Extra Rms:
 Misc:

Cash:
 Check: #:
 Credit: #:
 Credit: #:

Stays: of Nights: of

Arrive: Days:
 Notes:

Action:

Refund: Date:

Purchased: Status:

Buttons: Print... Here/Usage... OK Cancel

Operator:

Stratosphere Usage

Ticket Number: Pkg #: CSA Visit:

Guest Name: CSA Life:

Pkg Trips: # Trips Used: Used: Status:

Pkg Nites: # Nites Used: Pkg CSAL: Action Used:

Hotel Usage		
HDTE	HNITES	HMID
1/15/93	2	15716
10/14/94	3	51056

Action Usage	
NOTE1	NOTE2
Trouble	with a cap
Let's	Go down

Buttons: New... Delete

Byron's Roadside Stand

Welcome Travellers!!



Pull up a chair and have some Dr. Pepper, my Friend!



My name is Byron K. Stout

I grew up in Oklahoma, now I live in Minneapolis, Minnesota.

NEW So - What's New, Byron? **NEW**



Who is this Byron character??



Visit the Delphi Wizard!! Okay, would you believe *Thaumaturgist*??



What about Grand Casinos?? It's so much more than a job, it's an Adventure!!



See Disc Golf Stuff!! Discs, Frisbees, Pieplates, *whatever...*



Where To Go (favorite hangouts) You know, **Links!!**

Welcome to the bottom 1% of all visited webpages!

Byron & Frisbee Golf (aka Disc Golf)

The Twin Cities IS Disc Golf!!

I believe that the Twin Cities area is blessed with an abundance of quality Disc Golf courses. This is especially apparent in the NW Suburbs where you are simply surrounded with courses only minutes from anywhere!! The Winter months make it slightly more challenging to get out there on the courses, but when you gotta go you gotta throw!!!

- [Learn more about 13 Twin Cities Disc Golf Courses](#)
- [See the Twin Cities Weather Forecast](#)



[Visit Juliana Bower's Disc Golf Page](#)

NEW Juliana's link works again!!! Thanks to [Susan Anderson](#) for passing along the new address.

[Joseph Aaron Frost and Minnesota Disc Golf](#)

[Return to Byron's Home Page](#)

1999 – 2003 Notable World Events

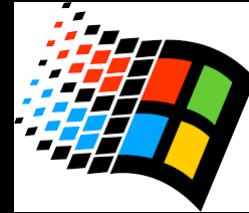


- ✓ Columbine massacre
- ✓ The Y2K Panic
- ✓ Euro currency introduced
- ✓ Play station 2 launch
- ✓ Hanging Chads / Bush v Gore
- ✓ 9/11 terrorist attacks
- ✓ Dot com bubble bursts
- ✓ Kmart files for bankruptcy

1999 – 2003 in PC Operating Systems

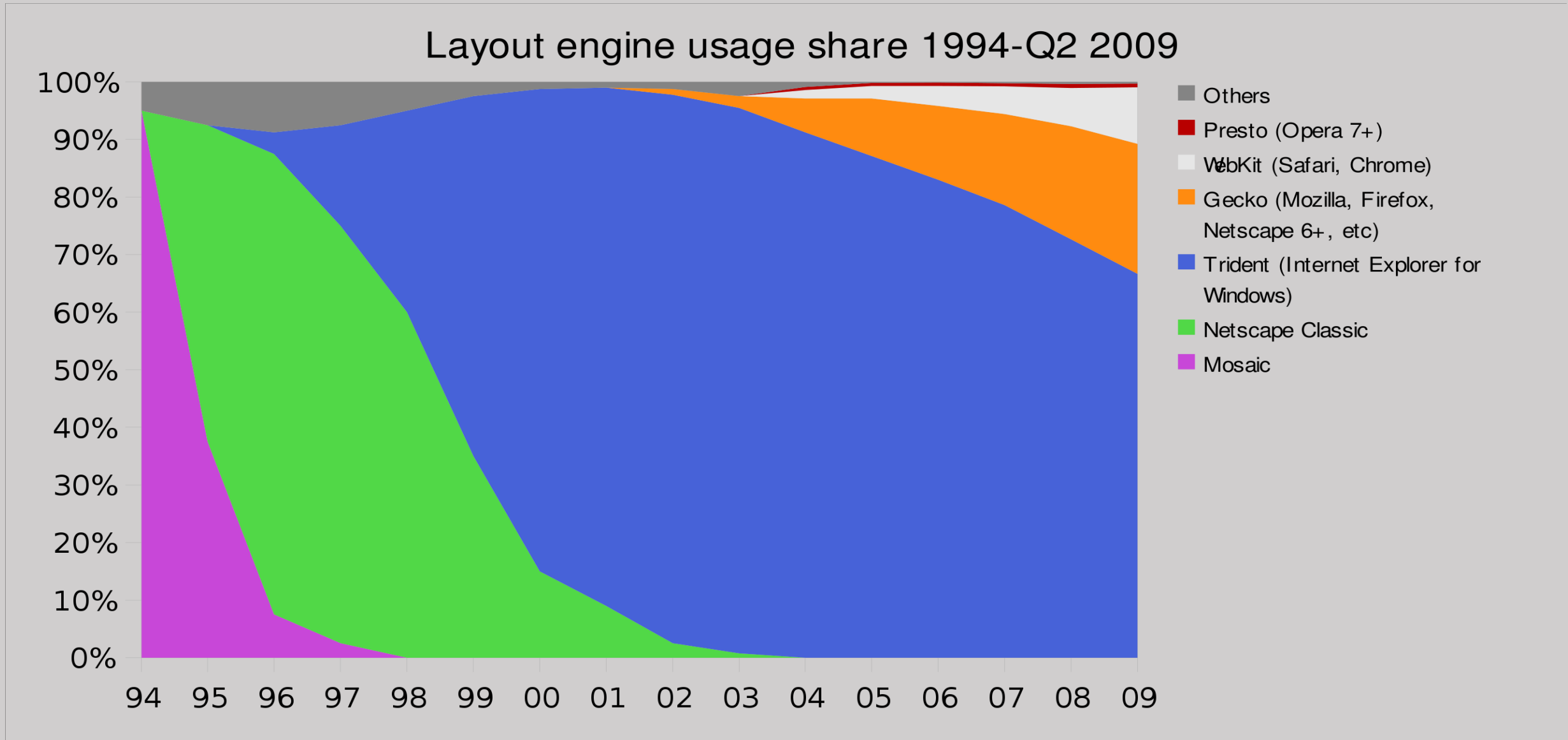


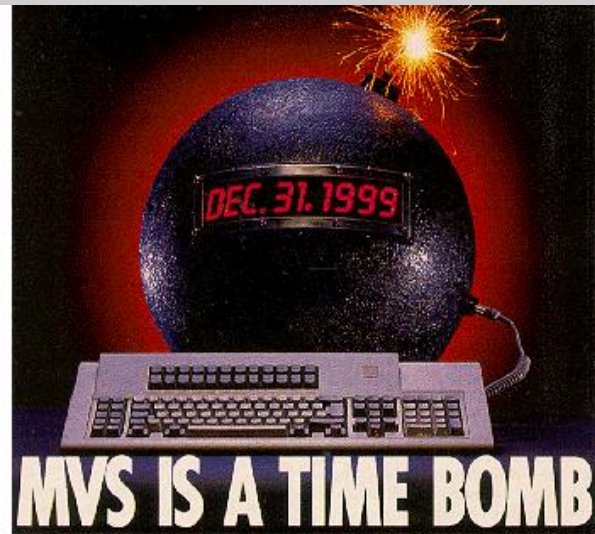
2001...OS X 10.0
2002...OS X 10.2



2000.... win2k
2000....winME
2001...winXP

1999 – 2003: The Browser War I





ASP Active Server Pages



ViatiCare

Brady & Co.

Vicom

Manhattan Toy

Call4Wireless

US Bank

IntelliMark

Edgewater Technology

Staffmark

Welcome, Carol Forde

[Change My User Preferences](#)

Find a Shipment (Simple Load Tracking Queries)

Trip Number/Pro Number:

Shipper Order Number: Bill of Lading Number:

Advanced Load Tracking Query

Pickup Location City: or Preferred Facility:
State: or Facility Code:

Delivery Location City: or Preferred Facility:
State: or Facility Code:

Shipment Status ☒ All Shipments ☐ Only Delivered Shipments ☐ Only In-Transit Shipments

Trailer Number Shipment Query

Trailer Number: Shipment Status:

ThromboticEvents.com

A Service of

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Physician Enrollment

Title:

*First Name: *Last Name: Suffix:

*Address:

*City: *State: *Zip:

*Country: Province:

*Office Phone: Extension:

Fax Number: Mobile Phone:

*Email:

Please Note: Fields denoted with an * must be completed.

Objix Corp.

Tax ID 41-1805689

3705 Archer Lane North

Plymouth, MN 55446

(763) 557-6785

INVOICE

INVOICE NO: GC0207

DATE: July 12, 2002

QUANTITY	DESCRIPTION	UNIT PRICE	AMOUNT
57	Tour and Travel System Development – Hourly Rate	\$85.00	\$4,845.00
	-- END OF ITEMS --		

Grand Casino Coshatta Tour and Travel Reservations

System Setups

Log Out



[Home](#)

[New Tour](#)

[Find A Tour](#)

[Groups Database](#)

[Bus Companies Database](#)

[Reports](#)

Party Bus Reservations



New

Modify

Day Tour Reservations



New

Modify

Overnight Group Reservations



New

Modify

Group Coordinator Database



Lookup

Bus Company Database



Lookup

Reports Menu



View

Web 1.0

"The mostly read-only web"

250,000 sites

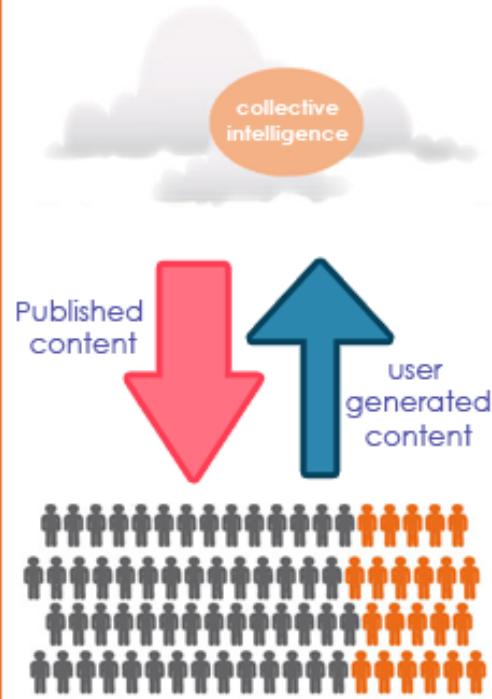


45 million global users
1996

Web 2.0

"The widely read-write web"

80,000,000 sites



1 billion+ global users
2006



Project name Home About Contact

Hello, world!

This is an example to show the potential of an offcanvas layout pattern in Bootstrap. Try some responsive-range viewport sizes to see it in action.

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget

Heading

Donec id elit non mi porta gravida at eget metus. Fusce dapibus, tellus ac cursus commodo, tortor mauris condimentum nibh, ut fermentum massa justo sit amet risus. Etiam porta sem malesuada magna mollis euismod. Donec sed odio dui.

[View details »](#)

Heading

Donec id elit non mi porta gravida at eget

Link

Link

Link

Link

Link

Link

Link

Link

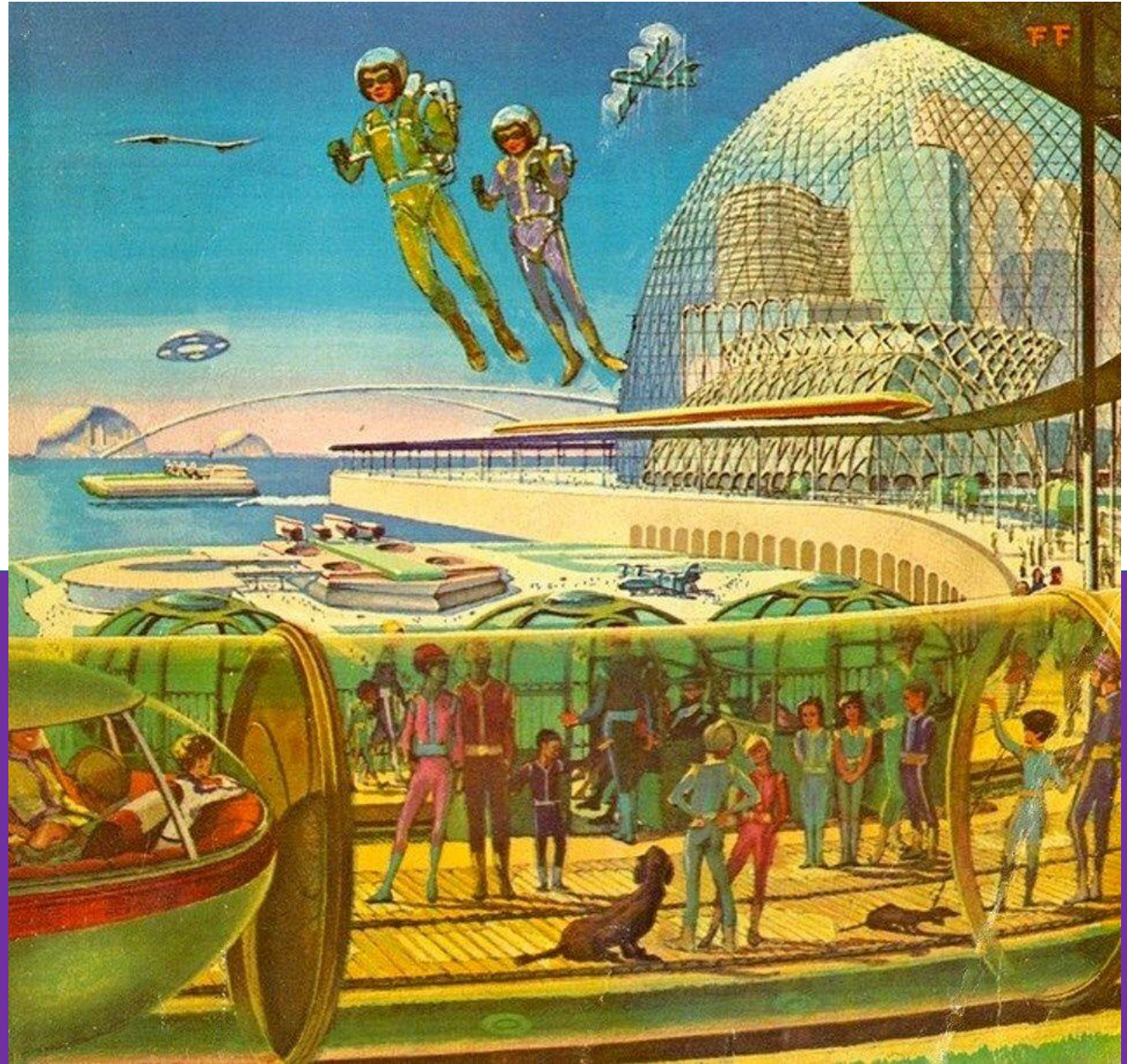
Link

Link

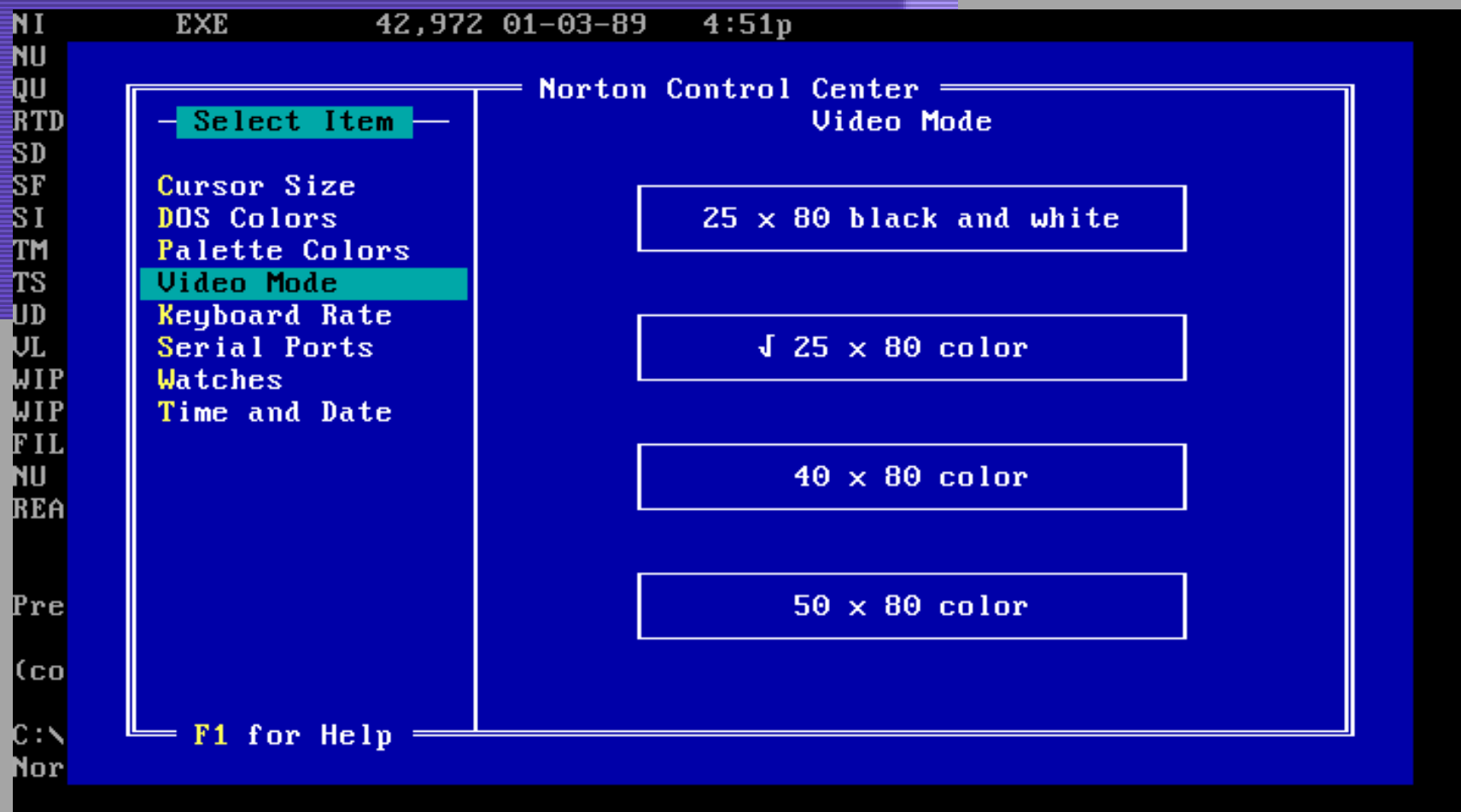
Since we Live in the Future

Paradigms of the Past

- TEXT
- TUI
- GUI
- WEB



OPEN 15,8,15,"N0:MYDISK,01":CLOSE 15



C:\		C:\NC	
C:\↓ Name	Name	C:\↓ Name	Name
DOS		123view exe	datex p nc ini
NC		4372ansi set	dbview exe nc msg
autoexec bat		8502ansi set	dir2dir exe nc_exit com
command com		8632ansi set	draw2wmf exe nc_exit doc
config sys		8652ansi set	drw2wmf exe ncclean exe
Io sys		8662ansi set	evileye nss ncclean ini
Msdos sys		ansi2437 set	faces nss ncdd exe
wina20 386		ansi2850 set	fish nss ncdd msg
		ansi2863 set	flip nss ncedit exe
		ansi2865 set	genie scx ncedit msg
		ansi2866 set	ico2dib exe ncff exe
		arcview exe	mouse nss ncff hlp
		bitmap exe	mvp2dib exe ncff msg
		bug nss	nc cfg nclabel exe
		bungee nss	nc exe ncmain exe
		clp2dib exe	nc fil ncnet exe
		cmpsrv scx	nc hlp ncnet msg
			nc ico ncpscrip hdr
wina20.386	9349 5-31-94 6:22a	..	►UP--DIR◀ 7-21-17 3:31p

C:\NC>

1Help 2Menu 3View 4Edit 5Copy 6RenMov 7Mkdir 8Delete 9PullDn 10Quit

File Edit View Tools Options Window Help

Property: [Caption 1 Value: [Form1 1 15,3 63x17

Tools
Move/Size
Check Box
Combo Box
Command Btn
Dir List
Drive List
File List
Frame
HScrollBar
Label
List Box
Option Btn
Picture Box
Text Box
Timer
VScrollBar

Form1

[] Check1 [Combo1 1]

[] Check2

Command1

Color Palette

() ForeColor (•) BackColor

Delphi - Project1

File Edit Search View Compile Run Options Tools Help

Standard Additional Data Access Data Controls Dialogs System VBX Samples

Object Inspector

Form1: TForm1

ActiveControl	
AutoScroll	True
+BorderIcons	[biSystemMe
BorderStyle	bsSizeable
Caption	Form1
ClientHeight	273
ClientWidth	427
Color	clBtnFace
Ctl3D	True
Cursor	crDefault
Enabled	True
+Font	(TFont)
FormStyle	fsNormal
Height	300
HelpContext	0

Properties Events

About Delphi

Borland
Delphi

Copyright © 1983-95

OK

Input Information - Select Second Screen

Casino Date Booked Generated By Department Origination Zip

Group Name Group Contact Contact Phone Contact Fax

Arrival Date Arrival Day Arrival Time Departure Time Pickup Time

Passengers Buses Additional Requests

Deposit Due By Deposit Amount Departure Address

Make Check Pay To Promotions

Mailing Address City State Zip

Next Screen

Print Conf. Form

Save & Exit

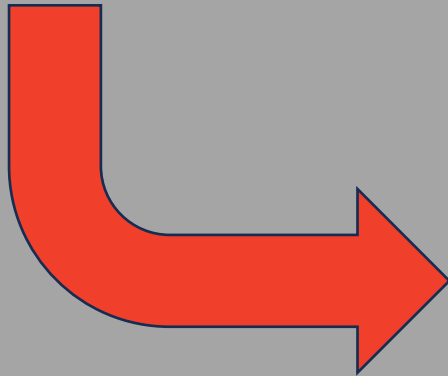
Hotel LookUp

Delete Tour



Cancel

Ticket Modification	
Ticket #: WQ225629	
Package: 3024 Campaign: WQ Mkt Ref #:	
Name: ABALOSE, ARTURO Ord By: Address: 1401 7TH PL City: DELANO State: CA ZIP: 93215 3019	Pkg Cost: 1985 Extra Rms: 585 Misc: Operator: laura
Stays: 2 of 5 Nights: of	Cash: Check: #: ***** Credit: 585 #: 5398600010021299 Credit: #: *****
Arrive: 10/14/94 Days: 2 Notes: MW & LW 11ST WATCH 7-25-92 VE king bed, no smoking***** *****	Refund: Date:
Action: 1000 CASINO ACTION PER VISIT	Purchased: 6/28/92 Confirmed: S Status: B Used: N Posted: 1245



Marten Transport Internet Load Tracking Main Page	
Welcome, Carol Forde Log Out Change My User Preferences	
Find a Shipment (Simple Load Tracking Queries) Trip Number/Pro Number: Find Shipper Order Number: Find Bill of Lading Number: Find	
Advanced Load Tracking Query Pickup Location City: State: or Preferred Facility: NONE or Facility Code: Delivery Location City: State: or Preferred Facility: NONE or Facility Code: Shipment Status ☒ All Shipments ☐ Only Delivered Shipments ☐ Only In-Transit Shipments Query Shipments Reset Fields	
Trailer Number Shipment Query Trailer Number: Shipment Status: ☒ All Shipments ☐ Only Delivered Shipments ☐ Only In-Transit Shipments Query Trailers Reset Fields	

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Physician Enrollment

Title:			
*First Name:		*Last Name:	
		Suffix:	
*Address:			
*City:		*State:	
*Country:		*Zip:	
		Province:	
*Office Phone:		Extension:	
Fax Number:		Mobile Phone:	
*Email:			

Please Note: Fields denoted with an * must be completed.

[Continue](#)

A graphic for 'Overnight Group Reservations'. It features a white van with a green checkmark on its side. Above the van is a green speech bubble containing the text 'Overnight Group Reservations'. To the right of the van are two green buttons: 'New' and 'Modify'.



Reports Menu

View

Project name

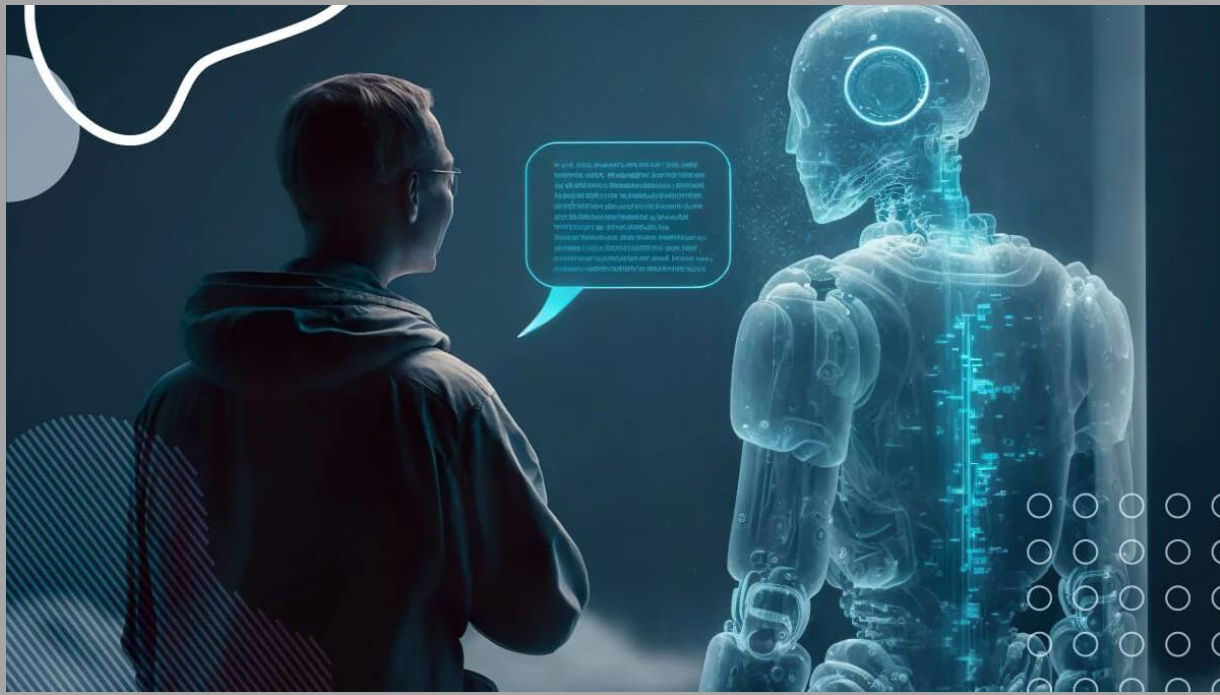
This is an example to show the potential of an offcanvas layout pattern in Bootstrap. Try some responsive-range viewport sizes to see it in action.

[illegible][View details »](#)[View details »](#)[View details »](#)

Donec id elit non mi porta gravida at eget



ChatGPT



**Please do not continue
making WEB Applications
in a GenAI World**

Thank You for Listening

Byron Stout

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