

QBITS SuperBASIC Progs

GAMES Two

QBITS Warehouse

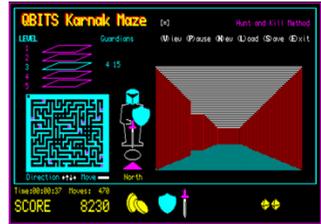
The Warehouse Prog started out as Storeman Sam the Guy driving the pickup. It then expanded to a larger store with two lorry bays and multi levels. The Printers show Sales Invoices and requested Stock Deliveries. The PC keeps Track of all held Stocks. The Sales are generated by departing Lorries loaded with Goods. Includes, hazards Stock loss etc. and Progress Chart of Sales/Stock.



QBITS Karnak Maze

This utilises a 3-Dimensional view around a Maze over five levels. Discover coins and other artifacts to collect while avoiding the Phantom Guardians.

Your gained Wealth is used in solving a puzzle to unlock a Time Portal, but before this you have to defeat all the Phantom Guardians.



QBITS Trader

Here you take charge of a Trader's Portfolio. Buy and Sell Company Shares on the Stock Market over a three-year period. Hazards include Stock Market fluctuations in Share values and changes to Company Dividends.

Your achievements are assessed at the end.



QBITS Pandemic

An outbreak of a deadly virus and you are in charge of a group of Specialists deployed to find a Cure and Eradicate the Infection from all Cities.

The number of turns, random Virus outbreaks and choices made, affects any successful outcome.

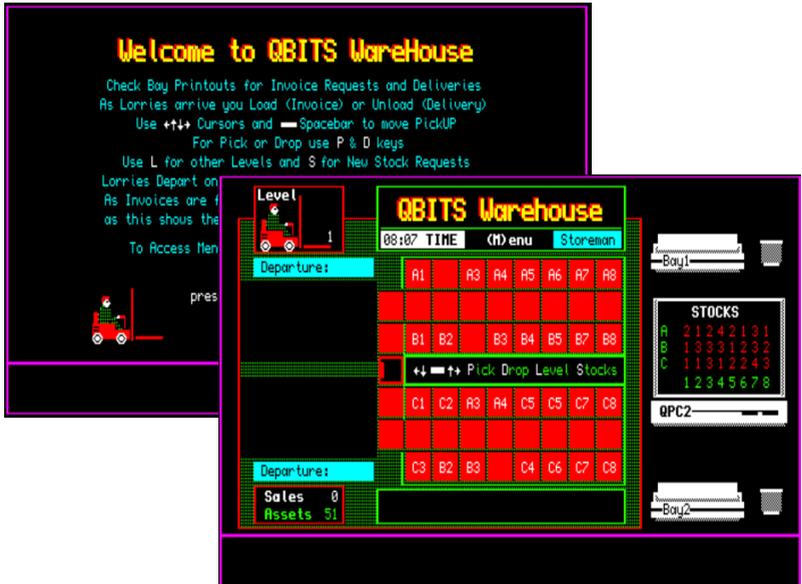


QBITS GALAXY AD2375

Play as Alliance or Republic. Take over the Galaxy, Star system by Star system by Acquisition or Military Force. Expect some Twists of Fortune along the way and encounters with enemy Fighters.

DEMO: Start New Game: Press F1 for Simulation Mode, then sit back and watch as things unfold.





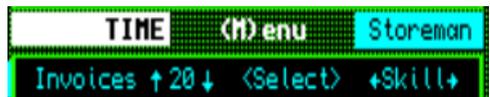
Introduction

Amongst old documentation of QL Programs, sketches and notes, I came across a two-sided sheet of graph paper headed ASRS. In the mid-eighties the company I work for at the time invested in a new innovation a computer controlled Automated Storage and Retrieval System (ASRS) This was quite a Project and I guess a starting point for writing my QBITS Game.

QBITS WareHouse Game

The aim is to fulfil Invoices of requested goods from the Warehouse Stocks that leads to an overall **Profit**. To achieve this **Sales** credits will need to overtake **Assets cost**. To accomplish this the Game can be set to run between 10 and 40 Invoices. The Store holds 128 bins and 24 different types of goods. The maximum held for each item is 8, this allows the Store Computer to display available stock in three rows A/B/C and eight columns 1-8, the Stock items number shown as between 0 to 8. Lorries are loaded / unloaded within a set time frame, each Lorry Departs on time. The Invoices and Deliveries are identified by printer outputs.

A Game requires actions that randomly upset the flow, the hazards chosen here are for a Store **Computer glitch** which is just annoying, losses due to **Missing Stock** which reduces the **Asset** and various others such as **Tax Revenues**, **Energy Bills**, and **Stolen Goods**, each of which deducts credits from the accrued **Sales**.



At the start of a **New Game** select **Skill** (Forman Storeman Trainee) and number of **Invoices**. These are chosen in multiples of 5 from 10 to 40. As an Invoice is called, the count is incremented for the next. Upon each Lorry Departure or Hazzard, **Assets** and **Sales** are checked and the corresponding results are displayed.

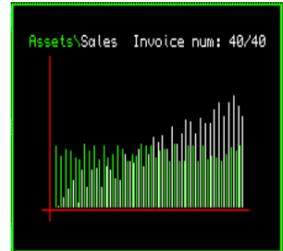
QBITS WareHouse Sales & Assets

As **Sales** are fulfilled the Store Stocks (**Assets**) are reduced. To replenish diminishing stock, the (**S**)tock Request brings in new Goods Deliveries to provide a means of restocking (**Assets**). It uses the Store Computer display to highlight the Stock item for selection.



You cannot make a Stock Request if you have less than 12 Sales credits, or a delivery is already being processed.

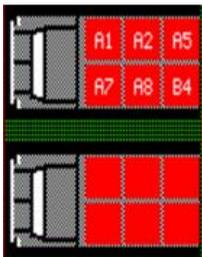
Lorry Departures with loaded Invoices generate **Sales**. Each unit of Stock (**Assets**) is valued as 1credit. If an Invoice is fulfilled and Lorry loaded as shown on the Printout each unit is worth 2 credits. If incorrectly loaded the items only counts as one credit.



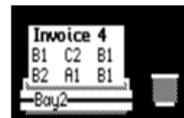
The Score is shown as **Sales/Assets**, press (**M**) for Menu and the window is opened to present an Audit Report Chart displaying the status of Profitability of completed transactions.

Variables keep track of Truck movement, storage Level, the Pick and Drop of Stock and to keep tab of changes to Stock (**Assets**) following a Delivery and/or move to fulfil an Invoice (**Sales**). These are processed to update the Store Computer Stocks (**Assets**) and the Score (**Sales**).

QBITS WareHouse Printers and Lorries



The printers are presented in line with their respective loading bay. Printouts have to cater for **Invoices** and **Deliveries** (Stock Requests) and as such, the top of each show whether they are an Invoice or a Delivery. The six spaces of an empty Lorry are to be filled as shown by the Invoice. For a Delivery, the six spaces display the Stock items Requested. As a lorry departs, the displayed printout is screwed up into a ball then further reduced to finally drop into the wastepaper basket.



Bay1& **Bay2** =0 when empty =1 for an Invoice or =2 for a Delivery. For deliveries, **Del=0/1/2** identifies if a Delivery is pending and which loading bay it will be delivered to. **Din=0** or **1** active, when a Delivery comes in.



The Pickup Truck is moved by the cursor keys along track ways to access Stocks. Direction for Pick or Drop is cycled around with the Spacebar. Warehouse location, levels and loading bays are identified as part of an array by row (**r**), column (**c**) and level (**l**), **Stock(r, c, l)**. Having four levels of storage added more gaming difficulties and introduced the graphics of Sam seated on his Pick-Up Truck to indicate which level was being accessed and is identified by (**lev**).

QBITS Warehouse Stock Movement

The basic graphics for the Warehouse display began with the Storage bays and Truck gangways. This is an Array of 7 rows with 15 columns. Truck movement was restricted to cells holding a 0. Cells containing Stock would be Set 1 to 24 (a1-8 b1-8 c1-8) or for the storage bays and if empty set to 32. All other cells are set to 255. As for the six cells for a Lorry if empty they would be set as 0 for Truck movement or if the bay was empty set to 255.

QBITS Warehouse Timing

Key to all is the Warehouse Clock against which the **Arrival** and **Departure** of Lorries are checked. The clock start time is created using the QL Date (**ClkOld=DATE**). The clock (**Clk**) updates are by reading the QL clock and deducting the **ClkOld** to give a time span. Divided by a clock multiple (**cm**) in this case 60 to change seconds into minutes on the Warehouse Clock.

The two loading bay's Departure Times are held by (**Dtime1 & Dtime2**)

QBITS Warehouse Channels/Windows

For the movement of Lorries and Printer outputs the graphic displays presented a number of choices. Open a large number of new channels (windows) or simply resize a window according to the action to take place. I chose the latter.

Channel / Window defined by - w-width, d-depth, x, y-coordinates

Intro and Menu WINDOW#1 Clear for Opening Introduction and resize for options Menu.

Store Layout ch=3:OPEN #ch,sqr_356x194a16x30:PAPER #ch,32:CLS #ch:BORDER #ch1,2
Game Title ch=3:WINDOW#ch,216,26,13,x10:PAPER #ch,24:CLS #ch:BORDER #ch1,2
Pick-Up Truck ch=4:OPEN #ch,sqr_80x40a32,12:PAPER #ch,0:CLS #ch :BORDER #ch1,2
ch=4:WINDOW #ch,20,30,70,13
(Reduce Window area for graphics to show Storage Bin Level)
Print/Lorries ch=5:OPEN #ch,sqr_10x10a10,10
(Open Window #5 reconfigure for Printer & Lorry Bays)
Bay1 Print ch=5:WINDOW #ch,116,24,380,40
Bay2 Print ch=5:WINDOW #ch,116,24,380,195
Bay1 Lorry ch=5:WINDOW #ch,120,40,18,75
Bay2 Lorry ch=5:WINDOW #ch,120,40,18,135
Store Score ch=6:OPEN #ch,sqr_80x22a32,198:PAPER #ch,0:CLS #ch :BORDER #ch1,2
QL2K Display ch=7:OPEN #ch,sqr_120x806a380,80:PAPER #ch,2:CLS #ch
Stock Request ch=8:OPEN #ch,sqr_216x22a136,198:PAPER #ch,2:CLS #ch:BORDER #ch1,2
Keyboard Input ch=9:OPEN #ch,con_20x10a10x10 [Consul for k\$=INKEY\$:k=COD\$(k)]

Note: BLOCK, BORDER, CURSOR, INK, PRINT, OVER, STRIP etc.
the - x, y coordinates are specific to Channel / Window.

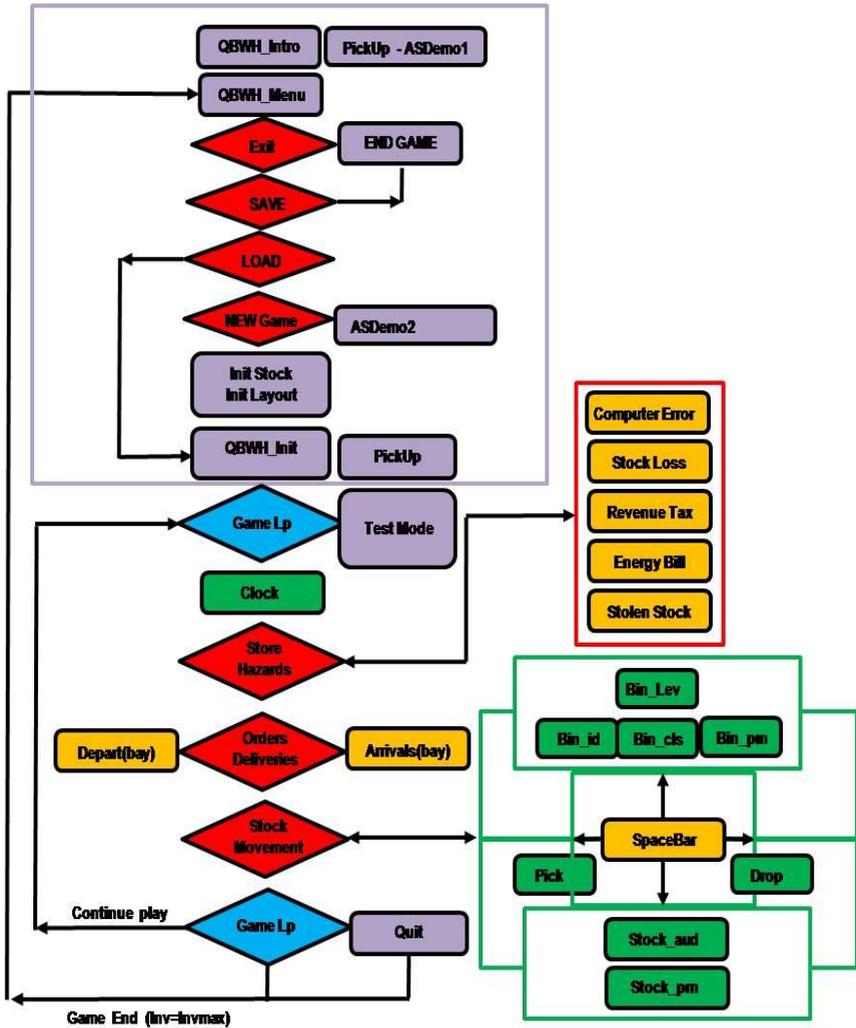
QBITS WareHouse Procedures

QBWH_Intro	Main instruction on Game
QBWH_Menu	(1)New (2)Load (3)Save (4)Exit options Menu
New_Game	Set up Select New Skill Foreman Storeman Trainee and number of Invoices
Sel_Path	Selects drive & Audit file
FCheck	Checks Drive & Audit File is available
Save_Audit	SAVE Game in progress for re- LOAD at later date
Load_Audit	LOAD previously saved Game
QBWH_Game	The main repeat loop for Game play until Inv=Invmax (Completed Total Orders).
Init_clk	Displays a digital counter hour : minutes
QBWH_Init	Graphics – Stock bins, Lorry bays, Clocks, Title, Truck, Score, Stock Request, Stock Display, Printers & Baskets.
Init_stock	Loads Data Array of Warehouse stock
Init_Layout	Displays Stock in Bin locations
PickUP	Graphics for Truck
Bin_lev	Use L level-key to change Bin Level in store
Bin_id	Convert Bin Stock number (1 to 24) to string (a1- c 8).
Bin_cls	Clear Bin
Bin_prn	Print Bin Stock number
Stock_aud	Checks Stock held in Store
Stock_prn	Print Stock numbers in QL2K Stock Display Screen.
Truck_pos(n)	Use Arrow-keys and Spacebar to move and show direction of Pick-Up truck.
Truck_Pick	Pick selected Bin Stock
Truck_Drop	Drop selected Bin Stock
Arrival(bay)	Bay 1 or 2: Generates Random Order or loads Delivery from Stock Request.
Prn_in	Prints Order or Delivery details to bay Printer
Lorry_in	PANS Lorry graphic into appropriate bay - Delivery stock shown loaded .
Depart(bay)	Bay 1 or 2: Graphics for Lorry Departure.+ Updates - Score / Assets.
Prn_out	Throws away paper to Basket.
Lorry_out	PANS Graphics for Lorry Departure
Stock_Request	Stock requested for next Delivery (maintain Stocks in Warehouse).
Stock_loss	Randomly deletes Warehouse Stock
Stock_er	Computer crash – Warehouse QL2K screen shows all stocks at zero.
Asset_Tax	? paid. Random amount taken from sales credits
Energy_Bill	? paid. Random amount taken from sales credits
Stolen_Stock	? lost. Random amount taken from sales credits
ASReport	Generates Asset /Sales Graph of Players progress
AS_Demo1	Asset/Sales graph for QBWH_Intro page
As_Demo2	Asset/Sales graph for QBWH_Menu page

QBWH Flowchart

In working out various actions and how they relate to each in a Program it helps to create a Flowchart as shown below.

Pickup and bin movement see Green Section. Hazards are highlighted by a Red box.
 The Menu - New Load Save Exit in Mauve box below.



QBITS Warehouse Program Code

1000 REMark QBITS_WHQPC2_bas [QBITS WareHouse SE 2023 Review - QPC2]

:
1002 dev\$='dos7_'.MODE 4:gx=0:gy=0 :REMark Basic Settings

1004 **WHEN ERROR:ec=1:CONTINUE:END WHEN**

1006 REMark **Import QBITSConfig Settings - QPC2**

1007 OPEN_IN#9,dev\$&QBITSConfig:INPUT#9,gx\gy\dn\$\dev\$\dn%\dm%

1008 DIM drv\$(dm%,5):FOR d=0 TO dm%:INPUT#9,drv\$(d):END FOR d:CLOSE#9

1010 REMark **Store Variables**

1011 ClkOld=DATE:Tim=3600 :REMark ClkOld=Start Time Tim=1hr Increment

1012 Clk=0:cm=60:Skill=6 :REMark Clk=Clock cm=60 Skill 3/6/9 Timings

1013 Asset=0:Sales=0 :REMark Asset=Stock Sales=Orders fulfilled

1014 Invmax=10:Inv=1:Ino=1 :REMark Invmax=Max Orders Inv=Current Ino Chk Sales

1015 stk=32:stk\$=' ' :REMark Stocks (1-24;32=Empty)Stk\$='a1 to c8'

1016 r=4:c=5:l=1:lev=1 :REMark Warehouse row,column,level & Bin Level

1017 p=192:box=0:box\$=' ' :REMark Truck Moves/Pick/Drop Status

1018 Dtime1=0:Dtime2=0 :REMark Scheduled Lorry Departure Times Bay 1&2

1019 bay1=0:bay2=0 :REMark Bay 0=empty 1=Order 2=Delivery

1020 Del=0:Din=0:Gs=0 :REMark Delivery Del/Din 0/1/2 Game Status Gs 0/1/2/3

1021 SD\$=QBWAudit_':fnum=0 :REMark Audit Data Files 0 - 9

1023 REMark **Arrays**

1024 DIM Aud(24),InB(2,6),Stock(7,14,4),SReq(6),ASRep(40,2),Mes\$(10,60)

1025 DIM Sk\$(3,8) :**RESTORE 1026**:FOR sk=1 TO 3:**READ Sk\$(sk)**

1026 DATA 'Foreman','Storeman','Trainee '

1028 **QBWH_Intro:QBWH_Init:QBWH_Menu**

1030 **DEFine PROCEDURE QBWH_Menu**

1031 ch=1:WINDOW#ch,220,144,gx+138,gy+49:CSIZE#1,0,0:INK#ch,0

1032 FOR i=1 TO 20:FILL#ch,1:CIRCLE#ch,60,50,*3:FILL#ch,0:PAUSE 1

1033 BORDER#ch,1,4:PAPER#ch,0:CLS#ch:dn=5:af=1

1034 IF demo=2:AS_Demo2:demo=0:ELSE ASReport

1035 IF Gs=1:ch=8:CLS#ch:INK#ch,4:CORSOR#ch,50,4:PRINT#ch,'Spacebar to Return'

1036 IF Gs=4:ch=8:CLS#ch:INK#ch,4:CORSOR#ch,84,4:PRINT#ch,'GAME END'

1037 ch=1:INK#ch,7:CORSOR#ch,28,130:PRINT#ch,'(N)ew (L)oad (S)ave (E)xit'

1038 **REPEAT lp**

1039 k=CODE(INKEY\$(-1))

1040 **SElect ON k**

1041 =32:IF Gs=1:CLS#8 :**Init_Layout:QBWH_Game** :REMark continue

1042 =78,110:**New_Game :QBWH_Game** :REMark (N)ew Game

1043 =76,108:**Load_Audit** :IF Gs=2:**QBWH_Game** :REMark (L)oad Game

1044 =83,115:**Save_Audit** :REMark (S)ave Game

1045 =69,101:CLS#8 :**GExit**:CLS#8 :REMark (E)xit Game

1046 **END SElect**

1047 **END REPEAT lp**

1048 **END DEFine**



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(N)ew (L)oad (S)ave (E)xit
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1050 **DEFine PROCEDURE GExit**

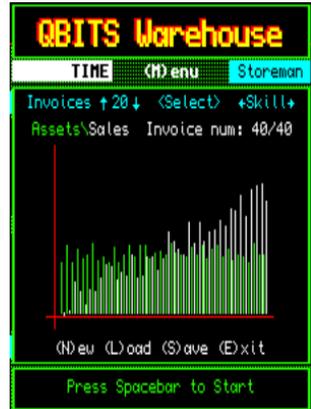
1051 CURSOR#8,84,4:PRINT#8,'Exit Y/N':PAUSE:IF KEYROW(5)=64:L:RUN dn\$

1052 **END DEFine**

```

1054 DEFine PROCEDURE New_Game
1055 IF bay1>0:Depart 1:bay1=0
1056 IF bay2>0:Depart 2:bay2=0
1057 ch=1:sk=2:iv=3:CLS#8:INK#8,4:CURSOR#8,38,4:PRINT#8,'Press Spacebar to Start'
1058 INK#ch,5:CURSOR#ch,8,2:PRINT#ch,'Invoices ↑ ↓ <Select> ←Skill →'
1059 REPEAT Choice
1060 ch=3:BLOCK#ch,60,11,276,7,5:QBold 0,0,276,8,Sk$(sk)
1061 ch=1:CURSOR#ch,71,2:PRINT#ch,FILL$( ' ',2-LEN(5+iv*5))&5+iv*5
1062 k=CODE(INKEY$(#ch,20))
1063 SElect ON k
1064 =192:sk=sk-1:IF sk<1:sk=3
1065 =200:sk=sk+1:IF sk>3:sk=1
1066 =208:iv=iv+1:BLOCK#1,12,10,71,2,0:IF iv>7:iv=7
1067 =216:iv=iv-1:BLOCK#1,12,10,71,2,0:IF iv<1:iv=1
1068 =69,101:LRUN dn$
1069 = 32:Skill=(sk*3):Invmax=5+(iv*5):CLS#8:EXIT Choice
1070 END SElect
1071 END REPEAT Choice
1072 Inv=1:Ino=1:Sales=0:FOR i=1 TO 40:ASRep(i,1)=0:ASRep(i,2)=0
1073 Init_Stock:Init_Layout:Gs=1
1074 END DEFine

```



```

1076 DEFine PROCEDURE QBWH_Game
1077 Bin_lev:Stock_aud:Score:Gs=1:r=4:c=5
1078 REPEAT Game_1p
1079 Store_Clk:Truck_Pos p
1080 IF Inv>7 AND Sales>24 AND Del=0
1081 num=RND(1 TO 99)
1082 IF num= 3:Store_err
1083 IF num= 7:Stock_loss
1084 IF num=13:Asset_Tax
1085 IF num=21:Energy_Bill
1086 IF num=29:Stolen_Stock
1087 END IF
1088 IF Inv>Invmax:Gs=4:QBWH_Menu
1089 IF bay1=0 AND Inv<=Invmax AND RND(1 TO 24)=7:bay1=1:Arrival(1)
1090 IF bay1>0 AND Clk>=Dtime1:Depart 1:bay1=0
1091 IF bay2=0 AND Inv<=Invmax AND RND(1 TO 24)=7:bay2=1:Arrival(2)
1092 IF bay2>0 AND Clk>=Dtime2:Depart 2:bay2=0
1093 k=CODE(INKEY$(#1,20))
1094 SElect ON k
1095 = 32:p=p+8:Bin_cls:IF p>216:p=192
1096 =192:p=192:Bin_cls:IF Stock(r,c-1,1)=0:c=c-1:IF c<6:lev=1:Bin_lev
1097 =200:p=200:Bin_cls:IF Stock(r,c+1,1)=0:c=c+1
1098 =208:p=208:Bin_cls:IF Stock(r-1,c,1)=0:r=r-1
1099 =216:p=216:Bin_cls:IF Stock(r+1,c,1)=0:r=r+1
1100 =68,100:IF box<>0 :Truck_Drop :REMark (D)rop
1101 =80,112:IF box= 0 :Truck_Pick :REMark (P)ick
1102 =76,108:lev=lev+1 :Bin_lev :REMark (L)evel
1103 =83,115 :Stock_Request :REMark (S)tock
1104 =77,109:Gs=1 :QBWH_Menu :REMark (M)enu
1105 =232 :Test_Mode :REMark F1
1106 END SElect
1107 END REPEAT Game_1p
1108 END DEFine

```

```

1110 DEFine PROCEDURE Store_Clk
1111 Clk=Tim+25200+((DATE-ClkOld)*cm):clock$=DATE$(Clk)
1112 ch=3:BLOCK#ch,30,10,124,8,7:STRIP#ch,7:INK#ch,0
1113 CURSOR#ch,126,8:PRINT#ch,clock$(13 TO 17)
1114 END DEFine

```



```

1116 DEFine PROCEDURE Bin_lev
1117 LOCAL r,c:IF lev>4:lev=1
1118 ch=4:CLS#ch:INK#ch,7:BLOCK#ch,24,2,0,44-(8*lev),2
1119 IF box>=1 AND box<=24 :BLOCK#ch,12,6,4,36-(8*lev),248
1120 CURSOR#ch,20,34-(8*lev):PRINT#ch,lev
1121 FOR r=1 TO 7 STEP 2
1122   FOR c=6 TO 13:stk=Stock(r,c,lev):Bin_id:Bin_cls:Bin_prn
1123 END FOR r
1124 END DEFine

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```

1126 DEFine PROCEDURE Bin_id
1127 stk$=' '
1128 SELEct ON stk
1129 = 1 TO 8:stk$='A'&stk
1130 = 9 TO 16:stk$='B'&(stk-8)
1131 =17 TO 24:stk$='C'&(stk-16)
1132 END SELEct
1133 END DEFine

```

```

1135 DEFine PROCEDURE Bin_cls
1136 ch=3:BLOCK#ch,22,18,2+c*24,5+r*20,2:1137 IF c<=5 AND lev>1:lev=1:Bin_lev
1137 END DEFine

```

```

1139 DEFine PROCEDURE Bin_prn
1140 ch=3:INK#ch,7:PAPER#ch,2:CURSOR#ch,7+c*24,10+r*20:PRINT#ch,stk$:stk$=' '
1141 END DEFine

```

```

1143 DEFine PROCEDURE Stock_aud
1144 LOCAL r,c:I:Asset=0
1145 FOR i=1 TO 24:Aud(i)=0
1146 FOR I=1 TO 4
1147   FOR r=1 TO 7 STEP 2
1148     FOR c=6 TO 13
1149       IF Stock(r,c,I)>=1 AND Stock(r,c,I)<=24
1150         Aud(Stock(r,c,I))=Aud(Stock(r,c,I))+1
1151       IF Aud(Stock(r,c,I))>8:Stock(r,c,I)=32:ELSE Asset=Asset+1
1152     END IF
1153   END FOR c
1154 END FOR r
1155 END FOR I
1156 FOR stk=1 TO 24:Stock_prn stk
1157 END DEFine

```

```

1159 DEFine PROCEDURE Score
1160 ch=6:INK#ch,7
1161 CURSOR#ch,54, 1:PRINT#ch,FILL$(' ',3-LEN(Sales))&Sales:INK#ch,4
1162 CURSOR#ch,54,12:PRINT#ch,FILL$(' ',3-LEN(Asset))&Asset
1163 END DEFine

```



```

1165 DEFine PROCEDURE Stock_prn(stk)
1166 ch=7:INK#ch,2
1167 SElect ON stk
1168 = 1 TO 8:CURSOR #ch,(stk*10)+ 10,12:PRINT #ch,Aud(stk)
1169 = 9 TO 16:CURSOR #ch,(stk*10)- 70,22:PRINT #ch,Aud(stk)
1170 =17 TO 24:CURSOR #ch,(stk*10)-150,32:PRINT #ch,Aud(stk)
1171 END SElect
1172 END DEFine

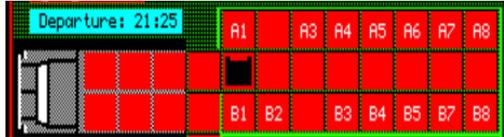
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1174 DEFine PROCEDURE Truck_Pos(p)
1175 ch=3:BLOCK#ch,18,14,4+c*24,7+r*20,0
1176 SElect ON p
1177 =192:BLOCK#ch,4,10,4+c*24,9+r*20,2
1178 =200:BLOCK#ch,4,10,18+c*24,9+r*20,2
1179 =208:BLOCK#ch,12,4,7+c*24,6+r*20,2
1180 =216:BLOCK#ch,12,4,7+c*24,18+r*20,2
1181 END SElect
1182 INK#ch,7:STRIP#ch,0:CURSOR #ch,7+c*24,9+r*20:PRINT#ch,box$
1183 END DEFine

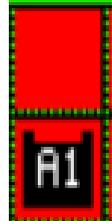
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1185 DEFine PROCEDURE Truck_Pick
1186 rt=r:ct=c:l=lev :REMark rt,ct,l,t temp hold of r,c,lev
1187 IF p=208:r=r-1 :REMark Pick Up
1188 IF p=216:r=r+1 :REM Pick Down
1189 IF c>5 AND c<14 AND Stock(r,c,l)>=1 AND Stock(r,c,l)<=24
1190 Aud(Stock(r,c,l))=Aud(Stock(r,c,l))-1
1191 stk=Stock(r,c,l):Stock(r,c,l)=32:Stock_prn stk:pick=1
1192 Bin_cls:Bin_prn:Bin_id:box=stk:box$=stk$
1193 END IF
1194 IF p=192:c=c-1 :REMark Pick Left
1195 IF p=200:c=c+1 :REMark Pick Right
1196 IF c<5 AND Stock(r,c,1)<25
1197 stk=Stock(r,c,1):Stock(r,c,1)=0:Bin_cls:Bin_prn:Bin_id:box=stk:box$=stk$
1198 END IF
1199 r=rt:c=ct:Bin_prn:IF box<>0:Bin_lev
1200 END DEFine

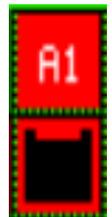
```



```

1202 DEFine PROCEDURE Truck_Drop
1203 rt=r:ct=c:l=lev
1204 IF p=208:r=r-1 :REMark Drop Up
1205 IF p=216:r=r+1 :REMark Drop Down
1206 IF c>5 AND c<14 AND Stock(r,c,l)=32
1207 Stock(r,c,l)=box
1208 Aud(Stock(r,c,l))=Aud(Stock(r,c,l))+1:Stock_prn box
1209 stk$=box$:Bin_prn:box=0:box$=' ':pick=0
1210 END IF
1211 IF p=192:c=c-1 :REMark Drop Left
1212 IF p=200:c=c+1 :REMark IDrop Right
1213 IF c<5 AND Stock(r,c,1)=0
1214 Stock(r,c,1)=box:box=0:stk$=box$:Bin_prn:box$=' '
1215 END IF
1216 r=rt:c=ct:IF box=0:ch=4:BLOCK#ch,12,6,4,36-(8*lev),0
1217 END DEFine

```



```

1219 DEFine PROCEDURE Arrival(bay)
1220 IF bay=1:py=16:ly=71:rl=2:ELSE py=171:ly=131:rl=5
1221 ar=r:ac=c:Pmn_in:Lorry_in:n=0:ch=5:WINDOW#ch,352,192,gx+18,gy+31
1222 FOR r=rl TO rl+1
1223 FOR c=2 TO 4
1224 Stock(r,c,1)=0:Bin_cls
1225 IF Del=bay
1226 n=n+1:stk=SReq(n):Stock(r,c,1)=stk:Bin_id:Bin_pmn
1227 END IF
1228 END FOR c
1229 END FOR r
1230 r=ar:c=ac:IF Del=bay:Din=1
1231 IF bay=1 AND bay2=1:dlay=300*Skill:ELSE dlay=0
1232 IF bay=1:ty=25 :Dtime1=dlay+Clk+(1200*Skill):Dept$=DATE$(Dtime1)
1233 IF bay=2 AND bay1=1:dlay=300*Skill:ELSE dlay=0
1234 IF bay=2:ty=152:Dtime2=dlay+Clk+(1200*Skill):Dept$=DATE$(Dtime2)
1235 STRIP#ch,5:INK#ch,0:CURLSOR#ch,84,ty:PRINT#ch,Dept$(13 TO 17)
1236 END DEFine

```

```

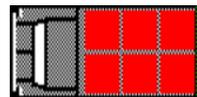
1238 DEFine PROCEDURE Pmn_in
1239 ch=5:WINDOW#ch,70,30,gx+386,gy+py:PAPER#ch,0:CLS#ch
1240 n=0:PAPER#ch,7:INK#ch,0:OVER#ch,1:SCROLL#ch,-10
1241 IF Del=bay
1242 String$='Delivery':CLS#8 :REMark clear Stock Request Window
1243 ELSE
1244 String$='Invoice '&Inv:Inv=Inv+1
1245 END IF
1246 FOR i=0 TO 1:CURLSOR#ch,2+i,20:PRINT#ch,String$
1247 FOR d=1 TO 2
1248 PAUSE 2:SCROLL #ch,-10
1249 FOR a=1 TO 3
1250 n=n+1:IF Del=bay:stk=SReq(n):ELSE stk=RND(1 TO 24):lnB(bay,n)=stk
1251 Bin_id:CURLSOR#ch,-22+a*24,20:PRINT#ch,stk$:stk$=' '
1252 END FOR a
1253 END FOR d
1254 END DEFine

```

```

1256 DEFine PROCEDURE Lorry_in
1257 ch=5:WINDOW#ch,120,40,gx+18,gy+ly:PAPER#ch,248
1258 FOR i=1 TO 19:PAN#ch,4:PAUSE 2
1259 BLOCK#ch,2,40,0,0,0
1260 FOR i=1 TO 5
1261 PAN#ch,4:BLOCK#ch,4,40,0,0,248:BLOCK#ch,4,2,0,4,0:BLOCK#ch,4,2,0,36,0
1262 END FOR i
1263 BLOCK#ch,2,32,0,4,0
1264 FOR i=1 TO 2
1265 PAN#ch,4:BLOCK#ch,4,2,0,4+i,0:BLOCK#ch,4,29-i,0,6+i,7:BLOCK#ch,4,2,0,36-i,0
1266 END FOR i
1267 BLOCK#ch,2,28,0,6,0
1268 FOR i=1 TO 3
1269 PAN#ch,4:BLOCK #ch,4,2,0,6,0:BLOCK#ch,4,2,0,19,0:BLOCK#ch,4,2,0,32,0
1270 END FOR i
1271 BLOCK#ch,6,4,0,0,7 :BLOCK#ch,4,4,0,0,0 :BLOCK#ch,6,4,0,36,7
1272 BLOCK#ch,4,4,0,36,0:BLOCK#ch,2,36,0,2,7:PAPER#ch,0:PAN#ch,4
1273 END DEFine

```



1275 **DEFine PROCedure Depart(bay)**

```

1276 IF bay=1:lr=2:py=16:ly=71:ty=21:ELSE lr=5:py=171:ly=131:ty=148
1277 dr=r:dc=c:n=0
1278 FOR r=lr TO lr+1
1279 FOR c=2 TO 4
1280 IF Del=bay
1281 IF Stock(r,c,1)=0:Sales=Sales-1:END IF
1282 ELSE
1283 n=n+1:IF Stock(r,c,1)=lnB(bay,n):Sales=Sales+2:END IF
1284 IF Stock(r,c,1)>=1 AND Stock(r,c,1)<=24:Sales=Sales+1:END IF
1285 END IF
1286 Stock(r,c,1)=255
1287 END FOR c
1288 END FOR r
1289 IF Del=bay AND Din=1
1290 Del=0:Din=0
1291 ELSE
1292 Stock_aud:Score:ASRep(lno,1)=Asset:ASRep(lno,2)=Sales:lno=lno+1
1293 END IF
1294 ch=5:WINDOW#ch,352,192,gx+18,gy+31:BLOCK#ch,30,10,84,ty,5 :REMark Cir DTime
1295 r=dr:c=dc:Lorry_out:Pm_out:Stock_aud:Score
1296 END DEFine

```

1298 **DEFine PROCedure Pm_out**

```

1299 ch=5:WINDOW#ch,70,30,gx+386,gy+py:PAPER#ch,0:CLS#ch:INK#ch,7:FILL#ch,1
1300 LINE#ch,10,90 TO 170,90 TO 150,60 TO 170,15 TO 10,20 TO 25,50 TO 10,90
1301 PAUSE 8:CLS#ch:FILL#ch,1
1302 LINE#ch,30,80 TO 150,80 TO 130,60 TO 145,25 TO 30,30 TO 40,50 TO 20,80
1303 PAUSE 5:CLS#ch:INK#ch,248
1304 FILL#ch,1:CIRCLE#ch,70,60,40,8,PI/2:PAUSE 5:CLS#ch
1305 FILL#ch,1:CIRCLE#ch,150,70,20:PAUSE 10:CLS#ch:BLOCK#ch,70,10,0,20,7
1306 ch=5:WINDOW#ch,20,30,gx+476,gy+py-6:PAPER#ch,0:CLS#ch:INK#ch,248
1307 FILL#ch,1:CIRCLE#ch,20,70,15:PAUSE 5:FOR i=1 TO 6:SCROLL#ch,5:PAUSE 3
1308 END DEFine

```

1310 **DEFine PROCedure Lorry_out**

```

1311 ch=5:WINDOW#ch,120,40,gx+18,gy+ly:PAPER#ch,0:BLOCK#ch,72,40,48,0,248
1312 FOR i=1 TO 30:PAN#ch,-4:PAUSE 1
1313 IF c<5
1314 IF bay=1 AND r<4:c=5:r=4:Bin_cls:Truck_Pos 192
1315 IF bay=2 AND r>4:c=5:r=4:Bin_cls:Truck_Pos 192
1316 END IF
1317 END DEFine

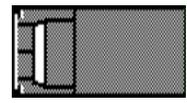
```

1319 **DEFine PROCedure Stock_loss**

```

1320 IF Asset<36:RETurn::ch=8:CLS#ch:INK#ch,7:OVER#ch,1
1321 CURSOR#ch,48,5:PRINT#ch,'Attention Stock LOSS!':att=RND(1 TO 7)
1322 IF att=1:FOR i=8 TO RND(9 TO 11):Stock(1,i,1)=32:Stock(7,i,1)=32
1323 IF att=3:FOR i=1 TO RND(2 TO 3):Stock(3,i,3)=32:Stock(5,i,3)=32
1324 IF att=5:FOR i=7 TO RND(8 TO 10):Stock(1,i,1)=32:Stock(7,i,1)=32
1325 IF att=7:FOR i=4 TO RND(5 TO 7):Stock(3,i,3)=32:Stock(5,i,3)=32
1326 Stock_aud:Score:FOR stk=1 TO 24:Stock_prn stk
1327 END DEFine

```



```

1329 DEFine PROCEDURE Store_err
1330 ch=8:CLS#ch:INK#ch,7: CURSOR#ch,36,5:PRINT#ch,'Store Computer Error!';
1331 FOR stk=1 TO 24:Aud(stk)=0:Stock_prn(stk)
1332 FOR t=1 TO 5:PAUSE 30:Store_Clk:ch=8:PRINT#ch,'!';
1333 CLS#ch:Stock_aud:FOR stk=1 TO 24:Stock_prn stk
1334 END DEFine

```

Store Computer Error!!



```

1336 DEFine PROCEDURE Asset_Tax
1337 IF Sales<42:RETurn
1338 ch=8:CLS#ch:INK#ch,7:Tr=INT(Sales/10):Sales=Sales-Tr
1339 CURSOR#ch,20,5:PRINT#ch,'Revenue Tax ',Tr,' credits paid':Score
1340 END DEFine

```

Revenue Tax 5 Credits Paid

```

1342 DEFine PROCEDURE Energy_Bill
1343 IF Sales<36:RETurn
1344 ch=8:CLS#ch:INK#ch,7:Ec=INT(Asset/20):Sales=Sales-Ec
1345 CURSOR#ch,20,5:PRINT#ch,'Energy Bill ',Ec,' credits paid':Score
1346 END DEFine

```

Energy Bill 2 Credits Paid

```

1348 DEFine PROCEDURE Stolen_Stock
1349 IF Sales<24:RETurn
1350 ch=8:CLS#ch:INK#ch,7:Ls=RND(2 TO 6):Sales=Sales-Ls
1351 CURSOR#ch,20,5:PRINT#ch,'Lorry Theft ',Ls,' credits lost':Score
1352 END DEFine

```

Lorry Theft 4 Credits Lost

```

1354 DEFine PROCEDURE Stock_Request
1355 IF Del>0 OR Sales<12:RETurn
1356 ch=8:CLS #ch:x=1:y=0:n=1:s=0
1357 INK #ch,7:CURSOR #ch,4,0 :PRINT #ch,'Stock Request'
1358 INK #ch,4:CURSOR #ch,36,10:PRINT #ch,'Select 6 Items ← → ↑ ↓'
1359 BLOCK #ch,20,4,140,14,4 :REMark SpaceBar
1360 Stock_aud:FOR stk=1 TO 24:Stock_prn stk
1361 REPEAT Stock_lp
1362 Store_Clk : IF n>6:Del=RND(1 TO 2):RETurn
1363 ch=7:STRIP #ch,4:INK #ch,0:Stock_prn x+8*y
1364 k$=INKEY$(#1,20):k=CODE(k$)
1365 ch=7:STRIP #ch,0:INK #ch,2:Stock_prn x+8*y
1366 SElect ON k
1367 =192:IF x>1:x=x-1:ELSE x=1
1368 =200:IF x<8:x=x+1:ELSE x=8
1369 =208:IF y>0:y=y-1:ELSE y=0
1370 =216:IF y<2:y=y+1:ELSE y=2
1371 =32:IF n<=6
1372 ch=8:Ink#ch,7:stk=x+y*8:SReq(n)=stk:Bin_id
1373 CURSOR #ch,80+(n*18),1:PRINT#ch,stk$,n=n+1:str$=' '
1374 END IF
1375 END SElect
1376 END REPEAT Stock_lp
1377 END DEFine

```

Stock Request a2 b6 b7 b8 c2
Select 6 Items ++ ← ↓



```
Select:↑↓dos1_QBWAudit_1 ↔ ← →
```

1379 **DEFine PROCEDURE SelPath**

```
1380 INK#ch,5:CURSOR#ch,8,6:PRINT#ch,'Select:↑↓ 'SD$;'← →←'  
1381 BLOCK#ch,12,3,186,10,5:BLOCK#ch,2,4,206,8,5:OVER#ch,0:INK#ch,7  
1382 REPeat Path_lp  
1383 CURSOR#ch,68,6:PRINT#ch,drv$(dn%):CURSOR#ch,156,6:PRINT#ch,fnum  
1384 k=CODE(INKEY$(-1))  
1385 SELEct ON k  
1386 =216:dn%=dn%-1 :IF dn%<0:dn%=dm%  
1387 =208:dn%=dn%+1 :IF dn%>dm%:dn%=0  
1388 =200:fnum=fnum+1:IF fnum>9:fnum=9  
1389 =192:fnum=fnum-1:IF fnum<0:fnum=0  
1390 = 10:pck=1:EXIT Path_lp  
1391 = 32:pck=0:EXIT Path_lp  
1392 END SELEct  
1393 END REPeat Path_lp  
1394 END DEFine
```

1396 **DEFine PROCEDURE FCheck**

```
1397 CLS#ch:CURSOR#ch,56,6:PRINT#ch,'Searching...'  
1398 PAUSE 20:DELETE drv$(dn%)&'FList'  
1399 OPEN_NEW#99,drv$(dn%)&'FList':DIR#99,drv$(dn%):CLOSE#99  
1400 OPEN_IN#99,drv$(dn%)&'FList'  
1401 REPeat Dir_lp  
1402 IF EOF(#99):CLOSE#99:CLS#ch:pck=0:EXIT Dir_lp  
1403 INPUT#99,Fchk$:IF Fchk$==SD$&fnum:CLOSE#99:pck=1:EXIT Dir_lp  
1404 END REPeat Dir_lp  
1405 END DEFine
```

1407 **DEFine PROCEDURE Load_Audit**

```
1408 ch=8:CLS#ch:SelPath:IF pck=0:CLS#ch:RETurn :ELSE FCheck  
1409 IF pck=0 OR eck=1  
1410 CLS#ch:eck=0:CURSOR#ch,56,6:PRINT#ch,'File Not Found...'  
1411 PAUSE 50:CLS#ch:RETurn  
1412 END IF  
1413 IF bay1>0:Depart 1:bay1=0  
1414 IF bay2>0:Depart 2:bay2=0  
1415 ch=8:CLS#ch:CURSOR#ch,56,6:PRINT#ch,'Loading...';  
1416 OPEN_IN#99,drv$(dn%)&SD$&fnum  
1417 FOR l=1 TO 4  
1418 FOR r=1 TO 7  
1419 FOR c=1 TO 14:INPUT#99,Stock(r,c,)  
1420 CURSOR#ch,104+r*6,6:PRINT#ch,'.':PAUSE 2  
1421 END FOR r  
1422 END FOR l  
1423 FOR n=1 TO 40:INPUT#99,ASRep(n,1)\ASRep(n,2)  
1424 INPUT#99,Inv\Ino\Invmax\Sales\Sk$(sk):CLOSE#99:CLS#ch  
1425 Init_Layout:Gs=2:BLOCK#3,60,11,276,7,5:QBold 0,0,276,8,Sk$(sk)  
1426 END DEFine
```

1428 **DEFine PROCedure Save_Audit**

```
1429 ch=8:CLS#ch:SelPath:IF pck=0:CLS#ch:RETurn :ELSE FCheck
1430 IF eck=1
1431   eck=0:CLS#ch:CURSOR#ch,56,6:PRINT#ch,'DEVICE ERROR'
1432   PAUSE 50:CLS#ch:RETurn
1433 END IF
1434 IF pck=1
1435   CLS#ch:CURSOR#ch,56,6:PRINT#ch,'Overwrite y/n':PAUSE
1436   IF KEYROW(5)<>64:CLS#ch:RETurn
1437 END IF
1438 FOR r=2 TO 3:FOR c=2 TO 4:Stock(r,c,1)=255:END FOR c:END FOR r
1439 FOR r=5 TO 6:FOR c=2 TO 4:Stock(r,c,1)=255:END FOR c:END FOR r
1440 DELETE drv$(dn%)&SD$&fnum:OPEN_NEW#99,drv$(dn%)&SD$&fnum
1441 CLS#ch:CURSOR#ch,56,6:PRINT#ch,'Saving...!':CLS#ch,2
1442 FOR l=1 TO 4
1443   FOR r=1 TO 7
1444     FOR c=1 TO 14:PRINT#99,Stock(r,c,l)
1445     CURSOR#ch,104+r*6,6:PRINT#ch,',':PAUSE 2
1446   END FOR r
1447 END FOR l
1448 FOR n=1 TO 40:PRINT#99,ASRep(n,1)\ASRep(n,2)
1449 Inv=Ino:PRINT#99,Inv\Ino\Invmax\Sales\Sk$(sk):CLOSE#99:CLS#
1450 END DEFine
```

1452 **DEFine PROCedure ASReport**

```
1453 INK#ch,2:LINE#ch,12,16 TO 100,16:LINE#ch,15,12 TO 15,80
1454 INK#ch,4:CURSOR#ch,12,16:PRINT#ch,'Assets!';
1455 INK#ch,7:PRINT#ch,'Sales Invoice num: ',Ino-1:'/':Invmax
1456 x=16:y=18:z=2:IF Asset>120 OR Sales>120:z=4
1457 FOR n=2 TO 80 STEP 2
1458   INK#ch,4:LINE#ch,x+n,y TO x+n,y+ASRep(n/2,1)/z
1459   INK#ch,7:LINE#ch,x+n+1,y TO x+n+1,y+ASRep(n/2,2)/z
1460 END FOR n
1461 END DEFine
```

1463 **DEFine PROCedure Init_Stock**

```
1464 RESTORE 1474
1465 FOR r=1 TO 7
1466   FOR c=1 TO 14
1467     READ Stock(r,c,1)
1468     IF c>=6 AND c<=13
1469       n=RND(1 TO 32):IF n>24:n=32
1470       Stock(r,c,3)=n:Stock(r,c,2)=32:Stock(r,c,4)=32
1471     END IF
1472   END FOR c
1473 END FOR r
1474 DATA 225,225,225,225,255,1,32,3,4,5,6,7,8,255
1475 DATA 225,225,225,225,0,0,0,0,0,0,0,0,0,255
1476 DATA 225,225,225,225,0,9,10,32,11,12,13,15,16,255
1477 DATA 225,225,225,225,0,255,255,255,255,255,255,255,255,255
1478 DATA 225,225,225,225,0,17,18,3,4,21,21,23,24,255
1479 DATA 225,225,225,225,0,0,0,0,0,0,0,0,0,255
1480 DATA 225,225,225,255,19,10,11,32,20,22,23,24,255
1481 END DEFine
```



```

1483 DEFine PROCedure QBWH_Init
1484 CLS#2:F1=0:stk=0:r=4:c=5:l=1:p=192:bay1=0:bay2=0
1485 REMark ** Store Layout **
1486 ch=3:OPEN#ch,scl:_WINDOW#ch,356,194,gx+16,gy+26
1487 BORDER#ch,1,2:PAPER#ch,32:CLS#ch
1488 BLOCK#ch,120,50,0,38,0:BLOCK#ch,120,50,0,98,0 :REMark Drive Bay 1&2
1489 REMark ** QBITS Title **
1490 ch=3:WINDOW#ch,220,41,gx+138,gy+6:BORDER#ch,1,4:PAPER#ch,0:CLS#ch
1491 OVER#ch,1:CSIZE#ch,2,1
1492 INK#ch,2:FOR i=0 TO 3:CORSOR#ch,14+i,4:PRINT#ch,'QBITS Warehouse'
1493 INK#ch,6:FOR i=0 TO 1:CORSOR#ch,16+i,5:PRINT#ch,'QBITS Warehouse'
1494 OVER#ch,0:BLOCK#ch,212,1,2,25,4
1495 REMark ** Headings **
1496 ch=3:WINDOW#ch,352,192,gx+18,gy+27:CSIZE#ch,0,0
1497 BLOCK#ch,74,11,124 ,7,7:QBold 0,1,156,8,'TIME'
1498 BLOCK#ch,60,11,276, 7,5:QBold 7,1,208,8,'(M)enu'
1499 BLOCK#ch,106,12,12,24,5:QBold 0,0,12,25,'Departure:'
1500 BLOCK#ch,106,12,12,151,5:QBold 0,0,12,152,'Departure:'
1501 REMark ** Pickup **
1502 ch=4:OPEN#ch,scl:_WINDOW#ch,80,42,gx+30,gy+6:BORDER#ch,1,2:PAPER#ch,0
1503 CLS#ch:init_PickUp:QBold 7,1,-6,0,'Level':WINDOW#ch,30,40,gx+74,gy+7
1504 REMark ** Printers Bay 1 & 2 **
1505 ch=5:OPEN#ch,scl:_
1506 FOR b=1 TO 2
1507 IF b=1:y=36:ELSE y=191
1508 WINDOW#ch,82,24,gx+380,gy+y :REMark Printer
1509 BLOCK#ch,78,16,2,6,7:BLOCK#ch,74,16,4,8,248:BLOCK#ch,82,10,0,12,7
1510 BLOCK#ch,82,2,0,16,0:BLOCK#ch,70,10,6,0,7
1511 STRIP#ch,7:INK#ch,0 :CORSOR#ch,10,12:PRINT#ch,'Bay'&b
1512 WINDOW#ch,20,16,gx+476,gy+y+4 :REMark Waste basket
1513 BLOCK#ch,20,2,0,0,7 :BLOCK#ch,14,2,3,14,7:BLOCK#ch,18,12,1,2,248
1514 END FOR b
1515 REMark ** Score **
1516 ch=6:OPEN#ch,scl:_WINDOW#ch,80,24,gx+30,gy+193:BORDER#ch,1,2:PAPER#ch,0
1517 CLS#ch:QBold 7,1,0,1,'Sales':QBold 4,1,0,12,'Assets'
1518 REMark ** QL2K PC **
1519 ch=7:OPEN#ch,scl:_WINDOW#ch,120,80,gx+380,gy+76:PAPER#ch,0:CLS#ch
1520 BLOCK#ch,116,62,2,0,7 :BLOCK#ch,114,60,3,1,248:BLOCK#ch,110,60,5,1,7
1521 BLOCK#ch,108,58,6,2,0 :BLOCK#ch,120,14,0,64,7 :BLOCK#ch,76,1,36,70,0
1522 BLOCK#ch,14,2,80,71,0 :BLOCK#ch,14,2,98,71,0 :BLOCK#ch,116,2,2,78,248
1523 QBold 0,1,0,66,'QPC2' :WINDOW#ch,100,56,gx+388,gy+80:PAPER#ch,0:CLS#ch
1524 QBold 7,1,20,0,'STOCKS':INK#ch,4:CORSOR#ch,0,12:PRINT#ch,'A'\B'\C'
1525 FOR i=1 TO 8:CORSOR#ch,10+(i*10),44:PRINT#ch,i
1526 REMark ** Requests & Messages **
1527 ch=8:OPEN#ch,scl:_WINDOW#ch,220,22,gx+138,gy+195:BORDER#ch,1,4:PAPER#ch,0
1528 END DEFine

1530 DEFine PROCedure QBold(col,cs,cx,cy,str$)
1531 INK#ch,col:OVER#ch,1
1532 FOR a=1 TO LEN(str$)
1533 FOR b=0 TO cs:CORSOR#ch,cx+b+a*(cs+6),cy:PRINT#ch,str$(a)
1534 END FOR a:OVER#ch,0
1535 END DEFine

```

1537 DEFine PROCEDURE Init_Layout

```

1538 ch=3:WINDOW#ch,352,192,gx+18,gy+27:BLOCK#ch,222,148,120,20,32
1539 BLOCK#ch,196,1,142,23,4:BLOCK#ch,2,143,338,23,4:BLOCK#ch,1,60,144,65,4
1540 BLOCK#ch,196,1,142,165,4:BLOCK#ch,2,20,142,23,4:BLOCK#ch,2,20,142,145,4
1541 BLOCK#ch,196,20,144,84,4 :BLOCK#ch,192,16,146,86,0:INK#ch,7:OVER#ch,1
1542 CURSOR#ch,152,89:PRINT#ch,'← ↑ ↓ →':BLOCK#ch,12,4,168,92,7
1543 CURSOR#ch,200,89:PRINT#ch,'P D L S':INK#ch,4
1544 CURSOR#ch,200,89:PRINT#ch,' ick rop evel tocks':OVER#ch,0
1545 FOR d=1 TO 7
1546 FOR a=1 TO 14:IF Stock(d,a,1)<200:BLOCK#ch,22,18,2+a*24,5+d*20,2
1547 END FOR d
1548 END DEFine

```

1550 DEFine PROCEDURE Init_PickUp

```

1551 INK#ch,32:FILL#ch,1:CIRCLE#ch,46,32,5,3,-8:FILL#ch,0 :REMark Legs
1552 INK#ch,32:FILL#ch,1:CIRCLE#ch,28,44,18,.6:PI:FILL#ch,0 :REMark Body
1553 INK#ch,7:FILL#ch,1:CIRCLE#ch,30,65,5:FILL#ch,0 :REMark Head
1554 BLOCK#ch,2,1,16,13,0:BLOCK#ch,2,3,12,11,2:BLOCK#ch,6,2,13,10,2 :REMark Hair
1555 INK#ch,7:FILL#ch,1:CIRCLE#ch,50,42,4,5,PI/2:FILL#ch,0 :REMark Hand
1556 BLOCK#ch,1,8,32,22,2 :BLOCK#ch,4,2,28,22,2: FILL#ch,1:INK#ch,2
1557 LINE#ch,8,8 TO 68,8 TO 68,20 TO 44,20 TO 44,30 TO 16,30 :REMark PickUp
1558 LINE#ch TO 16,50 TO 9,50 TO 9,30 TO 8,30 TO 8,8:FILL#ch,0
1559 INK#ch,0:LINE#ch,9,21 TO 18,21:LINE#ch,9,26 TO 18,26 :REMark Vents
1560 INK#ch,2:LINE#ch,72,4 TO 72,90:LINE#ch,74,4 TO 74,90 :REMark Lift bar
1561 INK#ch,7:FILL#ch,1:CIRCLE#ch,16,7,8:FILL#ch,0 :REMark Left Wheel
1562 INK#ch,7:FILL#ch,1:CIRCLE#ch,55,7,8:FILL#ch,0 :REMark Right Wheel
1563 INK#ch,0:CIRCLE#ch,16,7,5:CIRCLE#ch,55,7,5 :REMark Wheel Hubs
1564 END DEFine

```

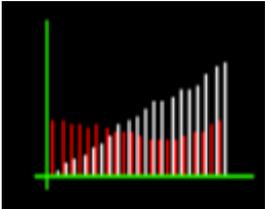


1566 DEFine PROCEDURE AS_Demo1

```

1567 INK#ch,4:LINE#ch,10,20 TO 110,20:LINE#ch,15,15 TO 15,90
1568 a=50:s=0:x=16:y=22:demo=2
1569 FOR n=2 TO 80 STEP 4
1570 o=INT(RND(1 TO 24))/RND(4 TO 8)):d=RND(5 TO 6)
1571 IF a>RND(8 TO 24):s=s+o*3:a=a-o
1572 IF s>28 AND RND(1 TO 24)=7:a=a+d:s=s-d
1573 IF n>40 AND RND(1 TO 3)=3:a=a+6
1574 INK#ch,2:LINE#ch,x+n,y TO x+n,y+a/2
1575 INK#ch,7:LINE#ch,x+n+2,y TO x+n+2,y+s/2
1576 END FOR n
1577 END DEFine

```



1579 DEFine PROCEDURE AS_Demo2

```

1580 FOR n=1 TO 40
1581 ASRep(n,1)=(50+RND(-12 TO 2)):ASRep(n,2)=(n*2+RND(-6 TO 18))
1582 END FOR n
1583 Ino=41:Invmax=40:ASReport
1584 Ino=1:Invmax=20:FOR n=1 TO 40:ASRep(n,1)=0:ASRep(n,2)=0
1585 END DEFine

```



```

1587 DEFINE PROCEDURE QBWH_Intro
1588 WINDOW#2,512,224,gx,gy :PAPER#2,0:BORDER#2,1,3:CLS#2
1589 WINDOW#0,512,32,gx,gy+224:PAPER#0,0:BORDER#0,1,3:CLS#0
1590 CSIZE#2,2,1:OVER#2,1:str$='Welcome to QBITS Warehouse'
1591 INK#2,2:FOR i=0 TO 1 :CURSOR#2,94+i,17:PRINT#2,str$
1592 INK#2,6:FOR i=0 TO 1 :CURSOR#2,96+i,18:PRINT#2,str$
1593 CSIZE#2,0,0:OVER#2,0 :INK#2,5:RESTORE 1596

1595 FOR i=1 TO 9:READ x,y,str$:CURSOR#2,x,y:PRINT#2,str$
1596 DATA 86,44,'Check Bay Printouts for Invoice Requests and Deliveries'
1597 DATA 80,56,'As Lorries Arrive you Load (Invoice) or UnLoad (Delivery)'
1598 DATA 82,68,'Use Cursors to Move PickUP and Spacebar to Rotate'
1599 DATA 156,80,'Use for Pick and for Drop'
1600 DATA 98,92,'Use for other Levels and for New Stock Requests'
1601 DATA 82,104,'Lorries Depart on Time Irrespective of Load/UnLoad Status'
1602 DATA 82,116,'Check PC Stock as this shows the Assets currently held in'
1603 DATA 86,128,'the Warehouse. As Invoices are Fulfilled Sales Increase'
1604 DATA 106,146,'Press Key to Access Menu [ew oad ave uit]'

1606 INK#2,7:FOR i=1 TO 9:READ x,y,str$:CURSOR#2,x+i,y:PRINT#2,str$
1607 DATA 180,80,'P',270,80,'D',122,92,'L',258,92,'S'
1608 DATA 138,146,'M',268,146,'N',292,146,'L',320,146,'S',348,146,'Q'
1609 CURSOR#2,160,176:PRINT#2,'press any key to continue...'
1610 INK#2,7:CURSOR#2,136,68:PRINT#2,' ← ↑ ↓ → ':BLOCK#2,14,3,240,72,7
1611 WINDOW#1,80,40,gx+72,gy+172:ch=1:Init_PickUp:BLOCK#2,24,2,112,206,2
1612 WINDOW#1,100,60,gx+360,gy+160 :AS_Demo1 :PAUSE
1613 END DEFINE

```



QBITS Warehouse Test Mode

To review QBITS Warehouse code Test Mode checks various Procedures, Invoices, Delivery, Printouts, Lorry movements, Store Clock, Stock Request, Game End and Hazards, Stock Loss, Computer Error and Sales credit deducted for Tax Revenues, Energy Bill payments and Stolen Lorry Stock. F1 key halts other actions of the main program to return press F1 key again after completing test selected.

```

1615 DEFINE PROCEDURE Test_Mode
1616 F1=1:ATemp=Asset:STemp=Sales:Sales=50
1617 REPEAT Test
1618 ch=8:CLS#ch:PRINT#ch,'Test Mode':Score=tk=CODE(INKEY$(-1))
1619 SELECT ON tk
1620 =49:Bay1=1:Arrival 1 :REMark (1)Bay1_in Print & Lorry
1621 =50:Depart 1:Bay1=0 :REMark (2)Bay1_out Print & Lorry
1622 =51:Bay2=1:Arrival 2 :REMark (3)Bay2_in Print & Lorry
1623 =52:Depart 2:Bay2=0 :REMark (4)Bay2_out Print & Lorry
1624 =53:Store_err :REMark (5)Compute Crash
1625 =54:Stock_loss :PAUSE :REMark (6)Assets Lost
1626 =55:Asset_Tax :PAUSE :REMark (7)Loss of Sales credits
1627 =56:Energy_Bill :PAUSE :REMark (8)Loss of Sales credits
1628 =57:Stolen_Stock:PAUSE :REMark (9)loss of Sales credits
1629 =97:Sales=Sales+6:Stock_aud :REMark (a)Increase Sales
1630 =65:Sales=Sales-6:Stock_aud :REMark (A)Decrease Sales
1631 =67:Tim=Tim+3600 :Store_Clk :REMark (C)Clock 1hr increments
1632 =71:Gs=4:QBWH_Menu :REMark (G)Game End
1633 =83:Stock_Request :REMark (S s) Note:Sales +12
1634 =232:F1=0:CLS#8:Asset=ATemp:Sales=STemp:Score:EXIT Test
1635 END SELECT
1636 END REPEAT Test
1637 END DEFINE

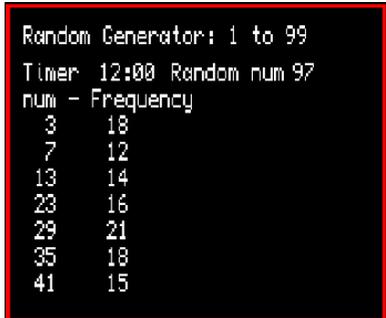
```

QBITS Warehouse Random Numbers

A program of this nature uses Random numbers from selecting which Lorry bay to be used and their Departure Times, to generating the stock items on Invoices and when to deploy any Store hazards, Computer clichés, Revenue Tax, Energy Bills to Lost or Stolen Stock etc.

I therefore found it useful to write a short program to check the frequency of numbers used in such a program. To begin with, it has a range within which the Random numbers are to be Generated (RGen). Then Specific numbers to check for their frequency within a Time Period (Timer) and an imposed Frame Delay (FDelay) waiting for any Keyboard Input.

```
100 REMark RanGen
101 WINDOW 492,220,10,0:PAPER 0:CLS
102 FDelay=20:RGen=99:RanGen
103 :
104 DEFine PROCedure RanGen
105 ch=1:WINDOW#ch,200,120,16,12:BORDER#ch,1,2:INK#ch,7
106 CURSOR#ch,0,6:PRINT#ch,' Random Generator: 1 to ';RGen;
107 CURSOR#ch,0,20:PRINT#ch,' Timer Random num';
108 clkold=DATE:a=0:b=0:c=0:d=0:e=0:f=0:g=0
109 PRINT#ch,'\ num - Frequency'\ 3'\ 7'\ 13'\ 23'\ 29'\ 35'\ 41'
110 REPEAT lp
111 clk=(DATE)-clkold:clock$=DATE$(clk*60)
112 CURSOR#ch,46,20:PRINT#ch,clock$(13 TO 17)
113 k=CODE(INKEY$(FDelay))
114 IF k=32:EXIT lp
115 num=RND(1 TO RGen):CURSOR#ch,148,20:PRINT#ch,num;' '
116 SElect ON num
117 = 3:a=a+1:CURSOR#ch,50,40:PRINT#ch,a;' '
118 = 7:b=b+1:CURSOR#ch,50,50:PRINT#ch,b;' '
119 =13:c=c+1:CURSOR#ch,50,60:PRINT#ch,c;' '
120 =21:d=d+1:CURSOR#ch,50,70:PRINT#ch,d;' '
121 =29:e=e+1:CURSOR#ch,50,80:PRINT#ch,e;' '
122 =35:f=f+1:CURSOR#ch,50,90:PRINT#ch,f;' '
123 =41:g=g+1:CURSOR#ch,50,100:PRINT#ch,g;' '
124 END SElect
125 END REPEAT lp
126 WINDOW 492,200,10,0
127 END DEFine
```



```
Random Generator: 1 to 99
Timer 12:00 Random num 97
num - Frequency
 3 18
 7 12
13 14
23 16
29 21
35 18
41 15
```

Note: The Random Generator in this example ran for 12 minutes. With eight numbers the frequency of occurrence is an average of 14 time for each within the 720 seconds ie. once every 50 seconds. The QBITA Warehouse Game applies these random choices with other restrains such as minimum Sales credits or Stock Assets before deductions are made.