

Thank you for using

LIFTSIM

- 1) Download QBB4 from www.QBB4.net
- 2) Download LiftSim files
- 3) Watch tutorials on YouTube...

www.youtube.com/watch?v=Av-0C7SHFEw
www.youtube.com/watch?v=2-dV89k2J40
www.youtube.com/watch?v=2-dV89k2J40
www.youtube.com/watch?v=VCZDS0wgfZk

- 4) Make a people database
- 5) Start using LiftSim

LIFTSIM

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A bit of LIFTSIM history for you

I started programming Lift Simulators on the ZX Spectrum (I must have done about 6 of them!). Nothing compares to this one though, although one of them did have simulated “bulb failures” which was quite cool!

LiftSim for QBasic was written when I was about 15 or 16 (1989). I added and added and added new features to it for the next 6 years.

I only resurrected it when I thought other people would be interested to see it. After this, I had requests to upload it, but it wasn't really understandable to anyone other than me, as I wrote it “for me”!!!

Over the past 2 years (is it THAT long?!) on and off, I've been making it understandable for other people to use it, although it was still in a DOS platform which can be a nightmare if you are using Vista (DOSBOX required).

LiftSim also had no sound, as cannot pass WAVs through DOS to Windows.

Just recently, I made it compatible with QB64 and added WAV coding.

Yes, the graphics are typical DOS graphics and this will never improve (and I don't have time to rewrite LiftSim into another platform (maybe when I retire...?! LOL!)), but I've tried to make it as real to life as possible. People movement, building situations, call logic, lift operating modes, echos from lift chimes on nearby floors...can anyone think of some more? :)

Anyway, hope you enjoy using LiftSim! I've enjoyed updating it over the past few years. It's a bit like 'Sudoku' to keep my programming mind active also :D

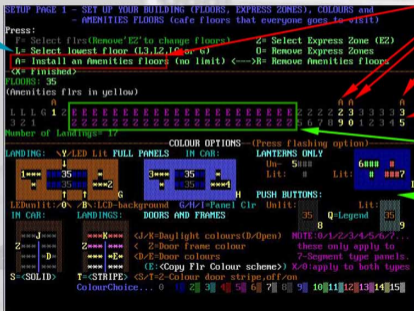
Matt

SETUP PAGE 1

Press SHIFT "A" to get back to here from the main program

Lower floor options:

L3, L2, L1 & G
or
L2, L1 & G
or
LG & G
or
G



Amenities floors (cafe floors) that everyone visits randomly, or when mode set to "Lunch Time". Some people leave the building for lunch.

- Up to 35 floors(+L3,L2,L1 & G)

Selectable Express Zones

Choose your own colours
for almost everything.

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SET UP PAGE 2

Press SHIFT "S" to get back here from the main program

The "wall paper colour" shows here.

Shows you the type of floor display that will appear on each floor.

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Panel Examples:
A=Amenities floor

SETUP PAGE 2. Select option, or 'X' to exit
DISPLAYS: D=Select display type:1<?>Seg LED & lamps>
L=Landing panels:1<?>Full display on G, w/d only elsewhere>
E=Direction arrow:1<?>On only on G, others only when car arrives>
SPEED DELAYS: MORE OPTIONS: '1'=Time Warp mode
M=Accelerate: 45 U=Car2 serves Amenities flrs only:<YES>
N=Car speed: 11 1=Cancel above during busy times:<YES>
O=Decelerate: 70 P=Amenities flrs have full panels:<YES>
H=Door hold: 82 A=Amenities flrs show as A1,A2,etc:<NO>
E=Default above C=In-Car arrows:<Show intended directn>
M=Car pos.'On-Off-On' effect: 3 <LONG>

DC-GENERATOR SETUP
Q=Lifts have DC-Generators? <YES> 1=Gen.run-up tme: 5 sec
2=FirstRun:<all lifts in Srv> 3=Shutdn if inactive: 10 min
FLOOR WALLPAPER COLOUR OPTIONS <See preview->('W'Wallpaper)<44>
U=Wallpaper <COLOUR:Normal darker colours>
Q864 OPTIONS (See DES. sec... P=Option1, Y=...
F=FULL SCREEN MODE <(1/3) Full screen(Option1):Stretch>
Y=SOUND FILE <WAV files starting with 'H'>
STATUS SCREENS S=Car&CallInfo:<ON-FULL display/18 flr max>
T=Diagnostic screens:<(3/3) Car Positions>
Z=Show building on mode:<YES>...Q Show FULL details:<NO>
Q=PEOPLE JOURNEY TIME FUNCTIONS:<Show when moving floor>
1=Only when always show? 2=Show: <Option & time>
<X> Finished>
Flr=WallPaper ~ (arrows)OnF=Light only when car on floor,ALW=always active
```

Option to make Car 2 serve Amenities floors ONLY. Car 2 will pick up calls only on these floors. This is designed to empty the Amenities floors quickly.

You can also choose to cancel Car 2 Amenities service if things get busy. It will turn back on when the busy period is over.

Instead of the floor number, Amenities levels can show as "A1", "A2", etc. The first Amenities level will get "A1" label, the next will get "A2". This does not reflect the floor number, it is simply the next Amenities floor from G upwards.

As default, the internal car arrow only lights when the lift is confirmed to be travelling to a destination (usually when the doors close). You can choose to have the arrow show the 'collective state' of the lift on arrival to a floor (collective state=if serving UP or DOWN calls)

The floor position will blink ON-OFF-ON when lift is moving – try it!

When people are moving (i.e. push call button, travel to a floor or out of the building) a time starts. Depending how long it takes a person to get to their destination depends on "how happy they are". A smilee appears at the end part of their name together with the current "travel time" (options to show smilee only, or time only, or both). When people come out of a lift, it's interesting to see just how long it took them to arrive.

Want to see how LiftSim is working? There are many Diagnostic screens to choose from here. These all appear at the top of the screen.

This is the car&call status screen that appears on the right of the screen. There are 2 options – FULL or MINI. Full can only show 18 floors (not inc ExpressZones). If you have lots of floors and they do not all show, use the MINI-Display option. You don't have as much info, but you'll be able to see all the floor calls.

This shows the "people flow mode" on the main screen (eg – "Mode: AM Peak") "Show all details" shows you the % of people in the building and how many people LiftSim is bring in/out depending on the "people flow mode". When "Lunch time" is active, extra details are shown like how many people are on amenities floors, etc.

(before LiftSim runs)

[YouTube](#)

```
Floor:   1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35  
flr_nm E2:L L L L L L L L L L L M M M M M M M M M M M U U U U U U U U U U U U U U U U U U U U U U  
L/M/U?  L M EZEZEZEZEZEZEZEZEZEZEZEZEZEZEZEZEZEZEZ U U U U U U U U U U U U U U U U U U U U U U  
#See blv: 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2  
Anyone with RESIDENT FLR within express zones, gets moved to flr stated above
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```

32y BEL :-D 182 38y ENG Fat 183 31y ENG Fat 184 38y ENG :-/ 185 38y
30y USA Bnd 186 35y POL :-p 187 31y ENG Nce 188 31y GER :-(- 189 38y
34y ENG Fat 190 30y FRA Fat 191 40y ENG :-D 192 36y ENG Nnl 193 38y
31y ENG :-S 194 37y FRA :-D 195 37y GER :-(- 196 38y ENG :-) 197 38y
31y ENG :-/ 198 30y POL :-/ 199 34y GER :-p 200 40y FIL B/D 201 38y
33y BEL :-D 202 31y CHN :-D 203 36y USA :-(- 204 36y ENG :-) 205 38y
34y POL Bnd 206 33y ENG Tal 207 30y ENG :-(- 208 35y IRE B/D 209 38y
31y ENG :-D 210 42y ENG :-(- 211 42y ENG :-(- 212 48y ENG Sml 213 38y
61y ENG Tal 214 49y ENG Sml 215 86y ITA Sml 216 87y ENG :-D 217 38y
68y ENG Tal 218 99y CHN Bnd 219 93y ENG Fat 220 96y IRE :-D 221 38y
92y ENG :-D 222 4y JPN :-D
LSpeople loaded! Press any key...

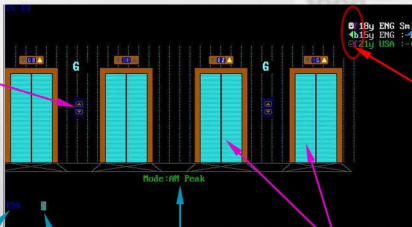
```

People have settings. You can allocate Resident Floors or "Floor regions" to everyone. There are three "Regions" – LOWER, MID & UPPER floors. If you place an Express Zone through these areas, then LiftSim has to move people to the nearest floor. For Example – "Matt, Resident floor=floor 20". On the example above, floor 20 is a EZ, so I cannot have this floor. LiftSim will move my resident floor to floor 25.

The dark blue line shows you the "regions" if there was no Express Zone.

BASIC KEYBOARD COMMANDS

Press the up/down arrow keys to call a lift



“People” (represented as text) on your floor.

The icon on the left lets you know what they are doing. (more details later)

Program running speed (always tries for 54 times per second)

Call waiting times
Green=OK
Yellow=Busy
Red=V.Busy

People flow mode
This only shows if selected ‘on’ in Setup screen 2–“Show building Op. mode”).
SHIFT ‘O’ to change your building mode.

To get in a lift (when the doors are open of course) press ‘z’ for lift 1, ‘x’ for lift 2, ‘c’ for lift 3 and ‘v’ for lift 4.

Don’t forget SHIFT ‘K’ gives you a reminder of all the rest of the key

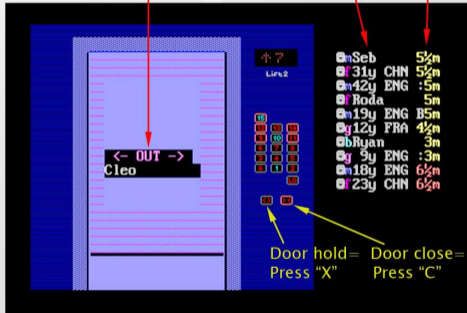
BASIC KEYBOARD COMMANDS

Inside a lift...

Shows people entering
and leaving lift car

People inside your lift car

(Shown here with "People
Journey timers" turned on)



To select a floor, just press the number
on the keyboard...

"1" then "5" for floor 15.

Just "9" for floor 9

If your building is above 10 floors, then
to select floor "1" press...

"1" then ENTER, OR "0" then "1".
(same if above 20 for floor 2)

If you start typing and decide to quit,
press ESC to cancel

You can cancel a car call by typing it in
again (although you cannot cancel the
"highest" or "lowest" car call)

To get inside a lift, press Z - X - C - V (Z=car 1, X=car 2, C= car 3, V=car4)

To get out of a lift, press the SPACE BAR, when the doors are open of course :D

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PEOPLE AND ACTIVITY ICONS

Person is walking AWAY from lift lobby and is now out of the building

Person is walking TOWARDS lift lobby

Person is walking AWAY from lift lobby

Person is arriving at building doors, but is not yet inside

PERSON IN LIFT LOBBY (waiting for lift)

(Amenities floors only -)

Person in Amenities (having coffee!)

Blue bars - going to Amenities floor in X minutes (3, 2, then 1 blue bar)

Brown bars - moving floor in X minutes (3, 2, then 1 brown bar)

No icon = people that are on your floor but not in lift lobby or doing anything!

Person going home soon

Gender

Red/Grn: Entering or leaving building

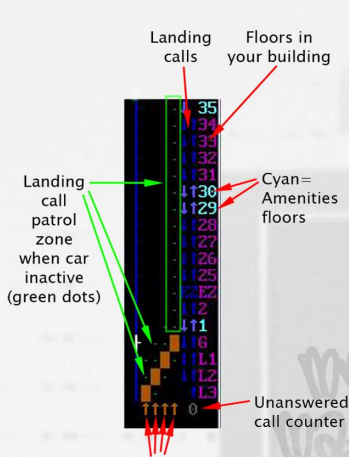
m28y	ENG	:-C
m18y	ENG	:-p
m19y	ENG	:-D
f20y	ENG	B/O
m19y	ENG	:-p
bTravis		
f31y	ENG	Nce
m28y	ENG	D0m
f26y	ENG	Bnd
f18y	ENG	Bnd
m18y	ENG	Bnd
fRosemarie		
m28y	SWE	:-C
b9y	GER	Tal
m19y	ENG	:-/
f28y	ENG	:-D
g8y	FRA	Tal



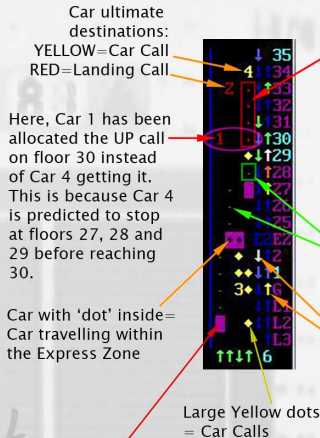
People can have “travelling time emoticons”. From the time of pushing the call button to arriving at their destination, their expression changes. This is activated from SETUP PAGE 2 = “People journey time emoticons”. Several options available for ‘when to show’ and ‘what’ to show.

CAR AND CALL INFO SCREEN

Selected from Setup page 2 – “S”



A "~" symbol means that at least one lift is inactive and there are still unanswered landing calls. Inactive lifts are offered all unanswered landing calls, but they don't always accept them if it's more efficient for another lift to answer instead. The lift that 'will' answer the landing call is shown with this symbol alongside relevant floor.



Red dots:
When a lift is traveling, it counts up all of the stops ahead of it. Landing calls that cannot reach within a reasonable amount of time show with red dots. Other lifts (if available) are then allocated to these landing calls.

Green dots:
The car 'can' handle any landing calls on the relevant floors shown.

CAR ICON MEANINGS:
BROWN=Inactive PURPLE=Active
RED=Non-stop to destination as answering a call in the opposite direction of travel
"["=Doors open
"X"]=Service mode (doors open)
"X"]=Service mode (doors closed)
"?"-Lift Asleep and considering starting up.
"G/:/D/g"]=DC Generator startup seq...
G=Generator Start, :=Ready, D=Shutdown
g=Generator Running down
The "lowercase=doors open", "uppercase=doors closed", applies to all modes listed below:
"F"]=Lift Full & not stopping for landing calls.
"Z"]=Lift Asleep (DC Generator Shutdown)
"A"]=Car2 Amenities Service active
"C"]=TBA (cannot remember!!) Something to do with, car is in Service mode and responding to a call :)

Did you know...

Did you know the coding of LiftSim can make the following decisions for your “people” ...?

- *Choose a random floor**
- *Choose person's resident floor**
- *Choose person's "Lower-Resident floor"**
- *Choose person's "Mid-Resident floor"**
- *Choose person's "Upper-Resident floor"**
- *Go to Amenities floor**
- *Leave by random floor**
- *Leave by person's usual floor**
- *Choose - Leave by Ground floor**
- *Choose - Return to original floor after amenities visit**
- *Choose - Return to different floor after amenities visit**
- *Choose - Return to different floor (general)**
- *Person's arrival has been delayed**
- *Person's arrival has been expedited**
- *Person's departure has been expedited**
- *Amenities visit expedited - 'lunch mode' activated**
- *Amenities - choose "going 'home' for lunch"**
- *Returning from lunch (went home)**
- *Returning from lunch (from amenities floor)**
- *Out at Lunch**
- *Lunch finished - returning to original floor**
- *Was at lunch - not returning now**
- *Staying in building for longer (building mode changed)**
- *Was leaving building, not now (building mode changed)**
- *Arrival delayed as building % is too high**

Future plans for LIFTsim

- *Add a fifth lift? There's JUST room....
- *Doors open & close within LiftSim main program (LiftSim doesn't have to pause when doors open&close)
- *Real positioning for each car, using a POSITION NUMBER rather than timers to time lift movement
- *More WAV sound options
- *'Find a Person'page rewrite
- *More DIAGNOSTIC screens to see people journey times and call waiting
- *FIRE ALARM activation-people leave immediately
- *Suggestions...?



LIFTsim

mrmattandmrchay
@YouTube