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# **ADSIMULO, AN EXPERT SYSTEM FOR ELEVATOR DESIGN**

**An acronym for what we do as consultants, finding solutions:**

**S** “Space Take”  
**P** “Performance”  
**A** “Architectural Fit”  
**C** “Capital Cost”  
**E** “Ease of Use”



CMA Tower, Riyadh

**Is “elevating”  
always a  
compromise...?**

the answer is “yes”



**Burj Khalifa, Dubai**

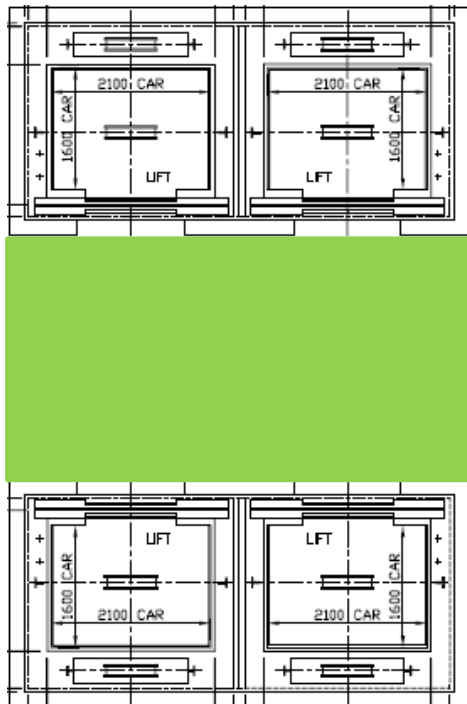
Not usually a big compromise  
but... lift traffic analysis  
programs only focus on one  
zone at a time

This inherently leads to  
inefficiencies that can only be  
overcome with large numbers  
of manual simulations varying  
floors served, speed, capacity  
etc. and/or experience

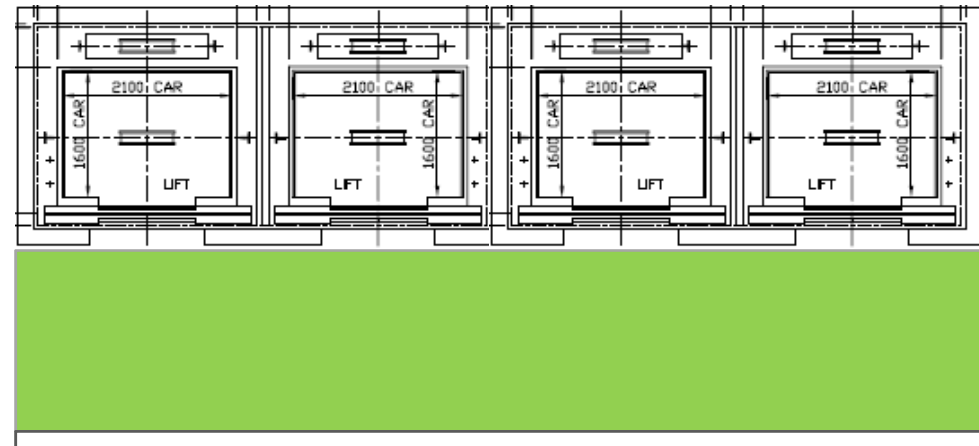


Taipei 101, Taiwan

# Minimising “Space Take”



OR



**54 sq m**

**64 sq m**

10 floors @ 10 sq m per floor = 100 sq m @ €15,000 per sq m = **€ 1,500,000**

# What is “Optimal Elevating”?

“Optimal Elevating” is a building elevator solution that minimises both the “space take” and “capital cost” of the elevators whilst ensuring that the specified traffic performance design criteria are met



CCTV HQ, Beijing



# Vision

In 2006 started project with Kingston University to design “all-in-one” web-based application to obtain “Optimum Elevating” via simulation including;

- Expert System
- Graphical Output Reports
- 3-D Visualisation of Passenger Use
- Architectural BIM File Output



The Shard, London



# The “Adsimulo” Application

- A revolutionary Lift Design Application accessible over the internet
  - Expert System to identify “Optimal Elevatoring”
- New Simulation Engine with Input Data Screens and Output Reports
- Multi-Group Visualisation Software
  - BIM with IFC file Output



Russia Tower, Moscow



# The Next 12 Months....

- BIM output with structural, electrical and heat loads etc.
- Expert System includes sky lobby options with local and shuttle elevators
- BIM and visualisation of escalators and service elevators



Gazprom, St Petersburg



# Demonstration of Adsimulo

- 30 floor single tenant HQ office tower
  - 140 persons per floor with 4m floor to floor distance
  - Capital value of one square metre of space is €10,000
  - Assume “Destination Control” lifts with machine rooms
    - Assume car capacities all to be 1600kg single deck
      - Assume lift speeds 2.5 to 6.0m/s
      - Assume group sizes 4 to 8 lifts
- Assume groups with opposite entrances and 3m lobby width
  - Target 15% 5-minute HC in “up peak”, 12% lunchtime
- Target 25s max average waiting time in “up peak”, 40s lunchtime



AdSimulo v3.7 Log in



Username demo

Password .....

Log in

Forgotten your details? [Contact your administrator.](#)

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# Thank You!

