

**LIEM TRUONG**  
**SOFTWARE PROJECTS PORTFOLIO**

### Personal Project: Sultans of Wings (game)

- Built a shoot em up aircraft game using C++ and Simple and Fast Multimedia Library(SFML)
- The game has more than 35 enemy airplanes and the player is in control of F22 and F35

The main menu



The controls menu where the user can set the keys of functionalities





Dog fight with missiles and shooting at enemies



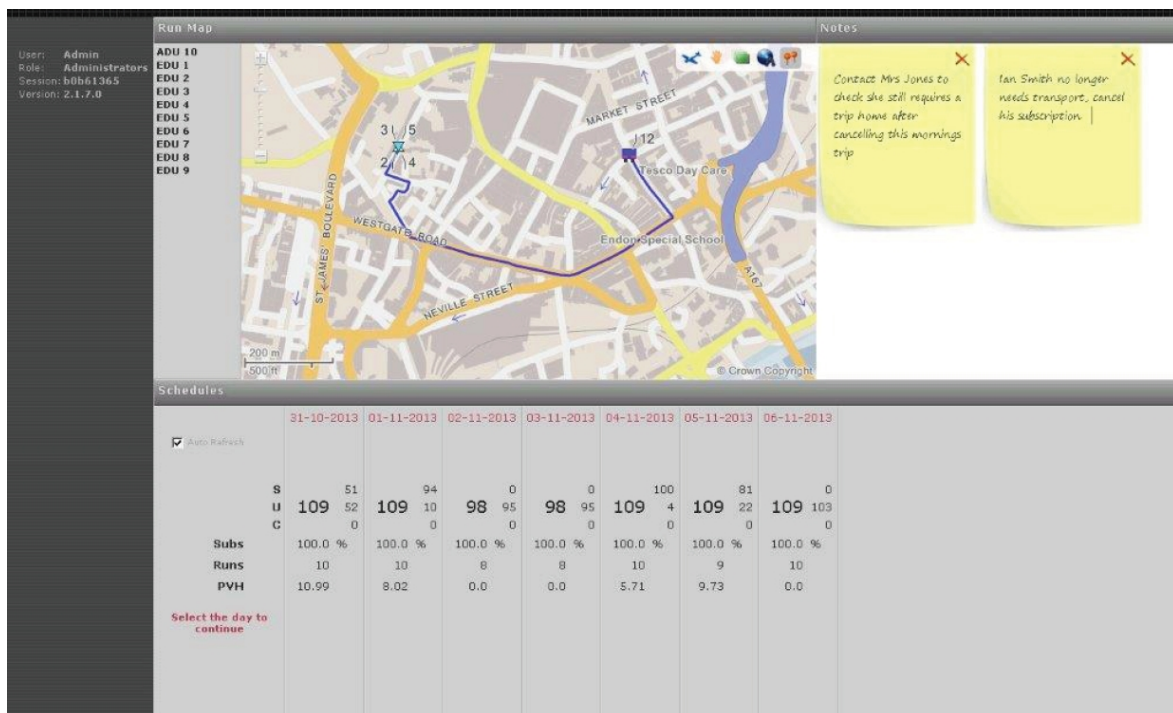
Another game. Zombie Area where the user can shoot the zombies.



## Programmer Analyst/Developer Trapeze Group

- Implemented SQL queries for school bus application
- Architect and built graphic user interface and services to load data into application using C++, SQL, HTML and JavaScript
- Design and implemented data migration feature to transfer data from other databases into bus application
- Implemented algorithm to schedule students on a bus and student scheduling user interface using Javascript
- Extended web application framework using C++, STL, SQL, Javascript and HTML and provided various solutions to defect fixes in GUI, business logic and communication layer of school bus application
- The project is an school bus application, it contains students, maps, routes and schedules. It is a web application using HTML, javascript and Visual C++ on Windows. I work on implementation of rework on broken features, most of the features are broken. I also fix defects and write sql (SQL Server) queries.

## Routes Map





## Schedule Booking

**Schedule Editor**

Admin: 10/30/2013 9:07:37 PM

Current Schedule: 04-11-2013

- EDU 10
- Run Map
- Unscheduled
- Willcall

### Runs - 10

Run Name	Passenger C.	Vehicle ID	Violations	Status	Pilot Name	Run ID
EDU 10	17	10	0			13161
EDU 8	14	8	0			13162
EDU 9	12	9	0			13163
EDU 7	14	7	0			13164
EDU 6	14	6	0			13165
EDU 5	14	5	0			13166
EDU 4	0	4	0			13167
EDU 3	0	3	0			13168
EDU 2	0	2	0			13169
EDU 1	15	1 CAP	0			13170

ClientName	Origins	FromPolygon	Requested TI	Destination	ToPoly	Requested TI pro
Chloe Dahl 34 OTTERS!			Chase Spec			08:55
MR. JOHN A BATH LANE			Chase Spec			08:50

2 records, 1 page

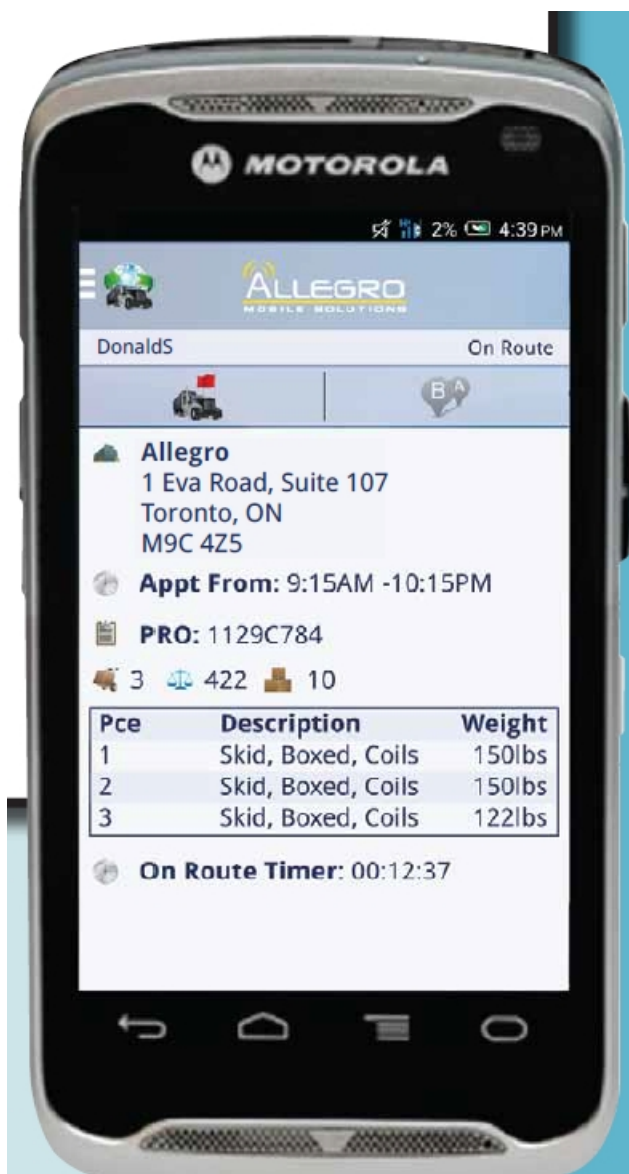
Pages: 1

The screenshot displays the 'Schedule Editor' interface. On the left, a sidebar shows 'XP1-1' and 'Runs'. The main window is divided into a list of stops on the left and a map of San Francisco on the right. The stop list, titled 'XP1-1 - A101 - M2105', contains 35 entries with columns for 'Time', 'Act', and 'Ad'. The stops are numbered 1 through 35, with times ranging from 7:43a to 2:56p. The map shows a route starting in the north (near Sausalito/Oakland) and ending in the south (near San Francisco), passing through various streets like BAY ST, PINE ST, TURK ST, and BROADWAY. A scale bar at the bottom left indicates 1 km and 5000 ft. The bottom center has a 'Schedule Editor' button, and the bottom right shows the copyright '© 2012 Trapeze Group'.

Time	Act	Ad
7:43a	WFO, BRYANT ST 94105	
8:00a	1423 19th Ave Oakland CA 94606	
8:03a	1831 8th Ave Oakland CA 94606	
8:09a	HOLY LAND KOGHER FOOD, 677 R	
8:13a	BRADFORD PHARMACY, 445 6TH S	
8:40a	3681 Glen Park Rd Oakland CA 946	
9:04a	ORRICO-ROMANA PIZZA CAPP, 25	
9:16a	65 Arana Cir Sausalito CA 94965	
9:45a	1012 47th St Emeryville CA 94608	
9:50a	4133 Terrace St Oakland CA 94611	
10:01a	2812 Lincoln Ave Alameda CA 94530	
10:24a	LA POSTA RESTAURANT, 2891 24th	
10:29a	MANDARIN VILLA RESTAURANT, 1	
10:34a	1774 Beach St San Francisco CA 94	
10:54a	OLIVIA, 1453 DWIGHT WAY SAN F	
11:11a	74 De Bevoise St San Francisco CA 94	
11:27a	DRAGON LOUNGE, 1335 TARKENT	
11:39a	SHOW GARDEN, 712 GRANT AVE S	
11:45a	741 Montgomery St San Francisco C	
11:46a	MECHANICS BANK, 343 SANSOME	
12:00p	295 Grant Ave San Francisco CA 94	
12:02p	BIG CITY WRAPS, 2 EMBARCADERO	
12:18p	FILIPPO'S EURO-CAFE, 5400 COLL	
12:35p	645 El Dorado Ave Oakland CA 946	
12:45p	4401 Jensen St Oakland CA 94601	
12:53p	GROCERY OUTLET, 2900 BROADW	
1:02p	2102 Clement Ave Alameda CA 945	
1:23p	OCEAN BEACH, GREAT HWY SAN F	
1:43p	9 Eagle St San Francisco CA 94114	
1:49p	2310 Fillmore St San Francisco 9411	
1:54p	NOR HILL LAMBOURNE, 725 PENE	
1:58p	TOWER HOTEL, 1527 GRANT AVE	
2:13p	CEBELLE'S PIZZA, 3763 PIEDMON	
2:30p	CHINA HOUSE, 2328 SANTA CLAR	
2:56p	398 Ellington Ave San Francisco C	

- It is an application for mobile devices used in nursing and parcel deliveries. It keeps track of data on the mobile device and communicate with the server for data updates. It is a C# application on Windows. I worked on transferring the application to a new code platform developed in-house by another team.

## Parcel Delivery



**Software Analyst** Alcatel ATS Canada

- It is a real-time windows application with client (MFC) and server to control automated driverless trains. It's an MFC C++ application with clients and servers. It uses graphics to draw and SQL Server to store information collected such as headway. I worked on implementing new features such as user authority and fixing defects.

Train Management Control System showing trains, tracks and platforms

