

dev408



Handheld mapping and data connectivity for NYC Dept of Finance

The context

- Long-term plan to upgrade technology applications at DOF
- CUR and DOF had been meeting to discuss collaborative projects; decided to seek funding through NYS Office of Real Property Services grant program
- Applied to ORPS for handheld pilot project:
 - Received approval mid-2006;
 - Focus on new construction properties;
 - Overall goals: develop proof-of-concept application; improve data efficiencies; facilitate research on changing neighborhood characteristics with access to better & more timely property data;
 - Dev408 developed actual application; and
 - DOF assessment team and CUR currently reviewing feedback and planning for next steps re: potential for larger-scale deployment with DOF.
- NOTE: application still in pilot-project stage. DOF is evaluating the results of the project for potential expansion to its entire field assessment team.

The device

- Top priority: needed to be ruggedized
- Other criteria: Windows-based; integrated with wireless and/or cellular connectivity; acceptable by DOF assessors; battery life
- Intermec CN3 was picked (though other similar devices have since come out on the market)



The application

The application is organized around the areas of:

1. **Task Lists** – Allows assessors to complete and track tasks.
2. **Parcel, Block and Building outline maps** – Users can see properties on a map, change their view and click on the map to access other information
3. **Data entry forms** – Users can see all aspects of a parcel including building information, valuation, etc. Assessors can update selected information and have it uploaded to central computers.
4. **Contextual access to the nyc.gov DOB website** – The application will access the DOB Building information database to check for construction permit and other information.

The application

- Screens generally match flow of CAMA mainframe interface, but greatly improve on user interface and navigation
- Property and buildings information:

Parcel	
PARCEL ID:	1/1405/51
LCI	C
Building Class	D4 - Elev Apts. - Coo
Prim. Use Code	A01 - High-Rise Apar
Total Buildings	1
Parcel Status	<undefined>
Street #	975
Street Name	LEXINGTON AVENUE
Apartment #	

Parcel	Parcel - contd	Activity
--------	----------------	----------

Menu Forms	OK	X	Home	Back	Forward	Search	Print
------------	----	---	------	------	---------	--------	-------

Building	
PARCEL ID	1/1405/51
BUILDING #	1
Improve Indicator	B - Dwelling Exists
Units Residential	42
Units Commercial	18
Building Status	<undefined>
Yr Built Start/End	1927 0
OBV Description	
Total Other	< 0

General	Measurements	Alterations
---------	--------------	-------------

Menu Forms	OK	X	Home	Back	Forward	Search	Print
------------	----	---	------	------	---------	--------	-------

Building	
Frontage	84
Depth	111
Perimeter	462
# of Stories	11
Extension	<undefined>
Proximity	2 - One-Side Abut
% Complete	0

General	Measurements	Alterations
---------	--------------	-------------

Menu Forms	OK	X	Home	Back	Forward	Search	Print
------------	----	---	------	------	---------	--------	-------








The application (continued)

- Land, neighborhood, and valuation information:

Land	
PARCEL ID	1/1405/51
Lot Type	3 - Corner
Irregular Lot	R - Regular lot
Primary Frontage	84
Depth	111.25
Perimeter	391
2nd Frontage	111
# Frontages	2

General	Sq Foot Data
Menu Forms       	

Property	
PARCEL ID	1/1405/51
Nbrhood Type	3 - Major Strip
Area Rating	1 - Excellent
Adj. Influence	3 - Normal/None
Compat	<undefined>
Street Type	<undefined>
Street Rating	<undefined>

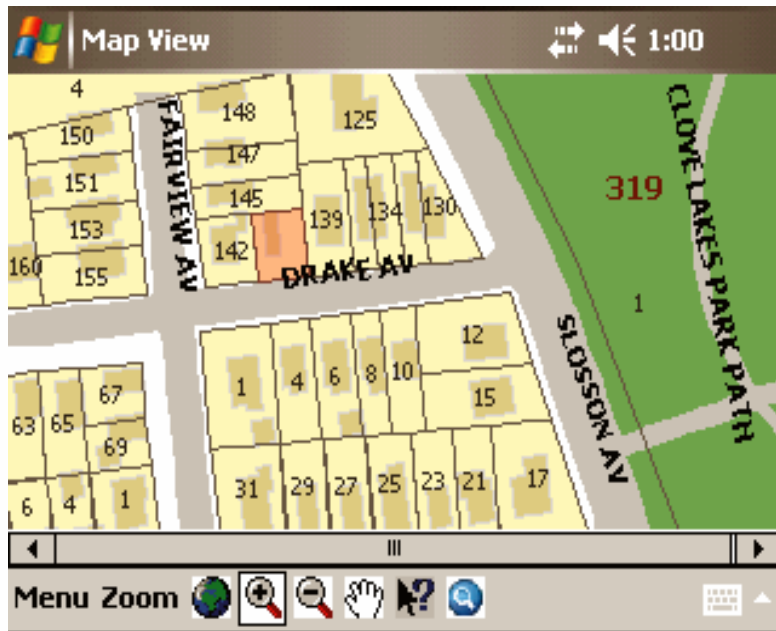
General	General - contd.
Menu Forms       	

Valuation	
Summary	
E - Equalization during tentative change	
Reason	E - Equalization during t
Land Value	<undef> 0
Impr. Value	+ 1400000

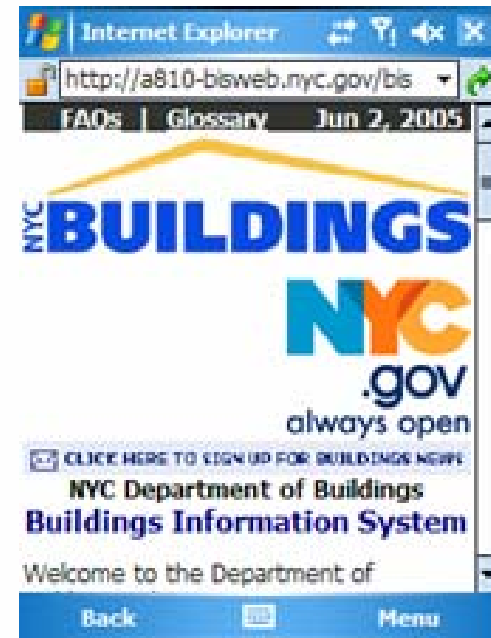
General	Record Value	VCD1	VCD2
Menu Forms       			

Maps

- Bytes of Big Apple parcel boundaries plus DoITT NYC MAP layers
- Parcels linked with underlying CAMA data loaded on device and/or accessible via wireless connection



- Direct link with NYC Dept of Buildings BISWEB site



Software

- All map-related functions developed through ESRI's ArcGIS Server 9.2
 - o Mobile ADF Framework for .NET
 - o Web services created from ArcMap MXD files
 - o ArcCatalog manages data (did not need SDE for pilot project)
- Other software:
 - o Microsoft .net Compact Framework
 - o SQL Server Mobile
 - o c# programming language



Handheld mapping and data connectivity for NYC Dept of Finance

Michael Uffer

dev408

718- 802-0272

917-673-1036

michael@dev408.com

www.dev408.com

Steven Romalewski

CUNY Mapping Service

The Graduate Center, CUNY

212-817-2033

sromalewski@gc.cuny.edu

www.oasisnyc.net

Herb Stratton

Technology Solutions Group

NYC Department of Finance

strattona@finance.nyc.gov