VanMap Integration at the City of Vancouver

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Presentation Objectives

- ▶ Describe GIS approach at Vancouver
- Describe VanMap integration approaches
- ▶ Describe existing specific integration examples
- Describe future integration plans

Vancouver has an Enterprise Implementation

Organizations acting as a whole, moving with common purpose in a defined direction to implement an application



- ▶ Implies sharing of core set of data across an organization
- More common in context of umbrella organization (local government or large utility)

The City's Objectives

More and Better information

More people

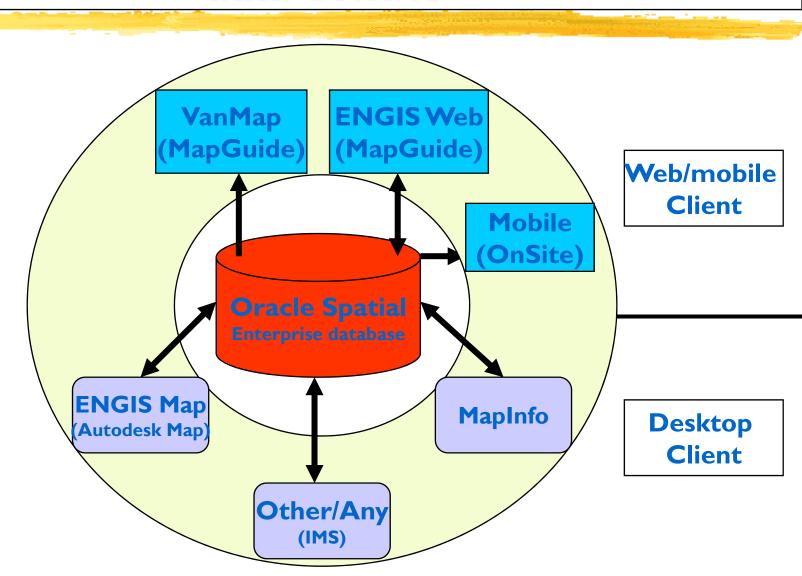
More easily

The City's Objectives

integrate data
with the business process

and GIS with the design process

GIS Environment: open, interoperable and data-centric



Integration Business Drivers

- Business processes cross business unit boundaries
- ▶ People often take a broad view where map and tabular views are complementary and even more powerful when integrated
 - People need to be able to visualize tabular information
 - Graphics users need to access more attributes and information from tabular systems
- ▶ Data verification and reconciliation
- ► Planning and analysis
- ▶ Do more with less by reducing duplication

Integration Approaches

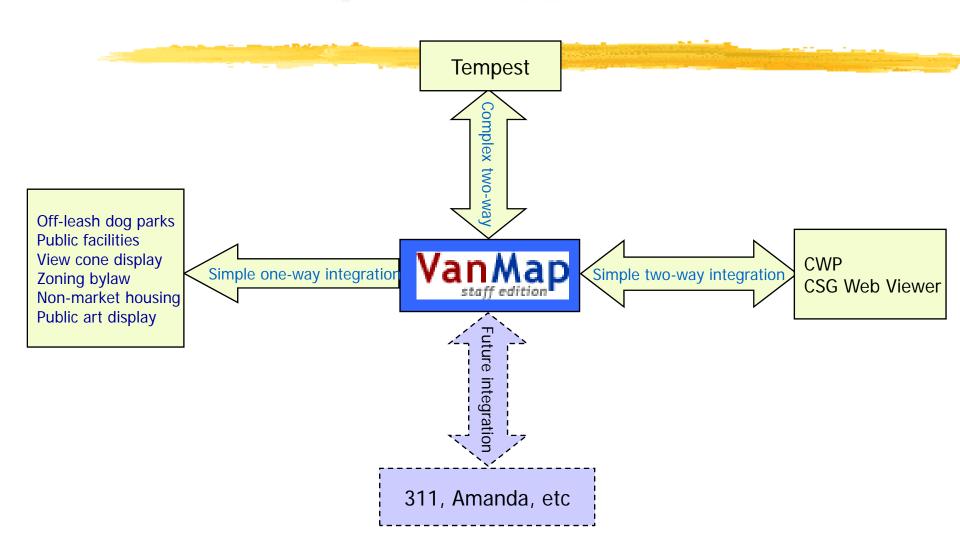
► Simple one-way integration

► Simple two-way integration

► Complex two-way integration

► VanMap is an integrating tool

Integration Approaches



Simple One-Way Integration

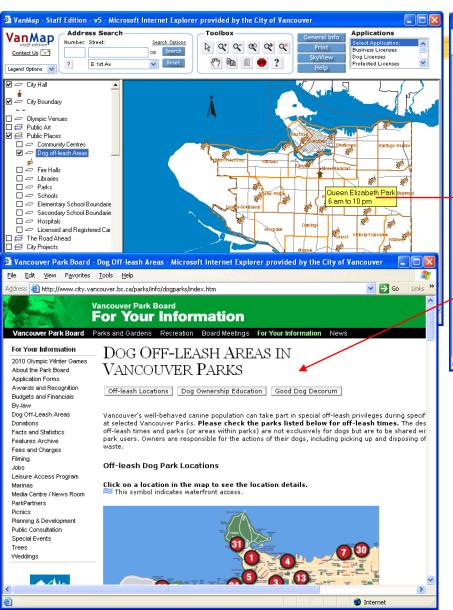
- Click on a feature in VanMap and something happens
 - Single parameter is passed
 - Result could be a display or an application
- Examples include
 - Off-leash dog parks
 - Public facilities
 - View cone display
 - Zoning bylaw
 - Non-market housing
 - Public art display

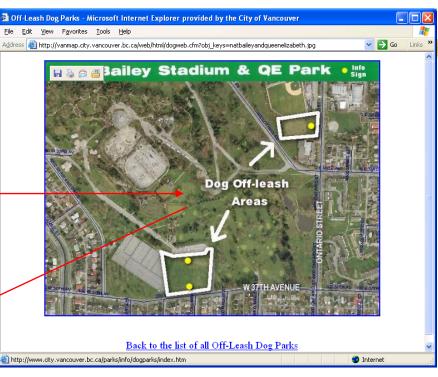
Simple One-Way Integration: Methods

From a VanMap feature to bring up a static or dynamic Web page of another system

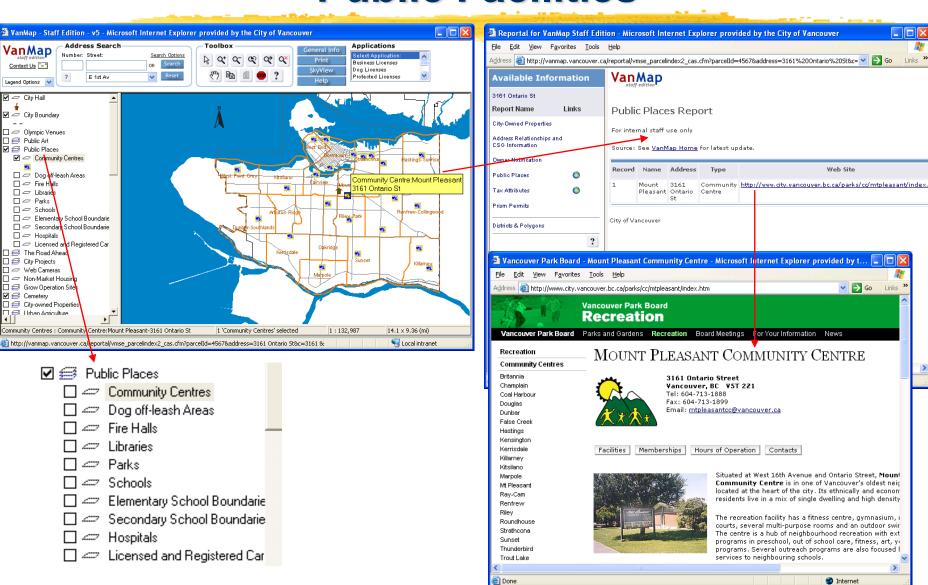
A business object from a VanMap layer is referenced to an existing Web page or application

Off-Leash Dog Parks

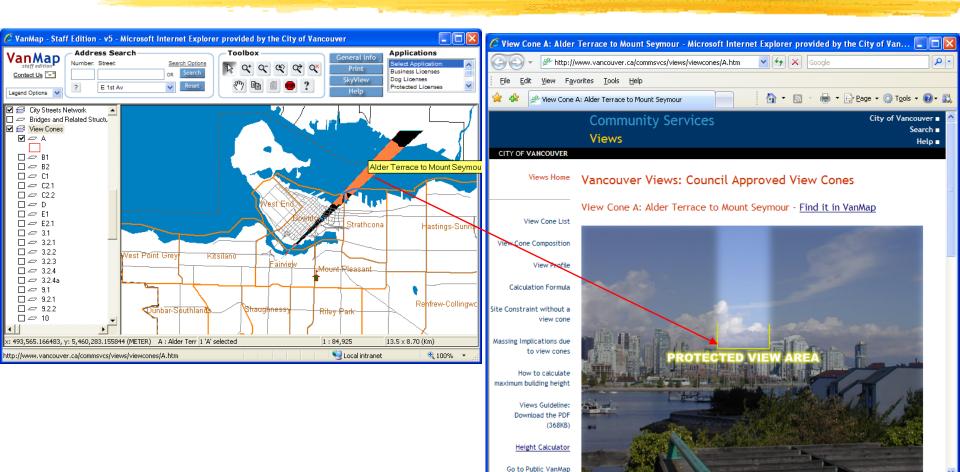




Public Facilities



View Cone Display

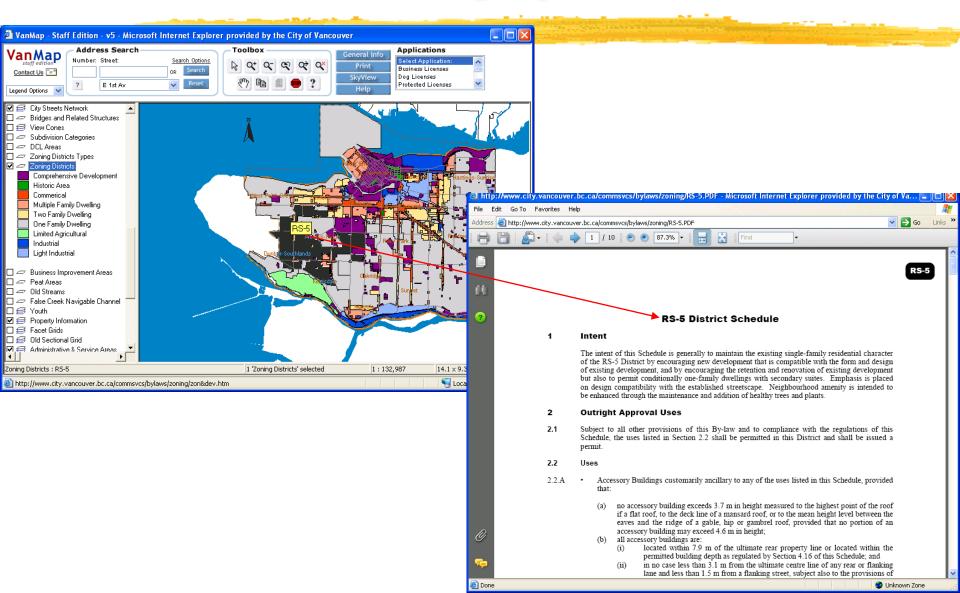


http://www.vancouver.ca/commsvcs/views/viewcones/A.htm#

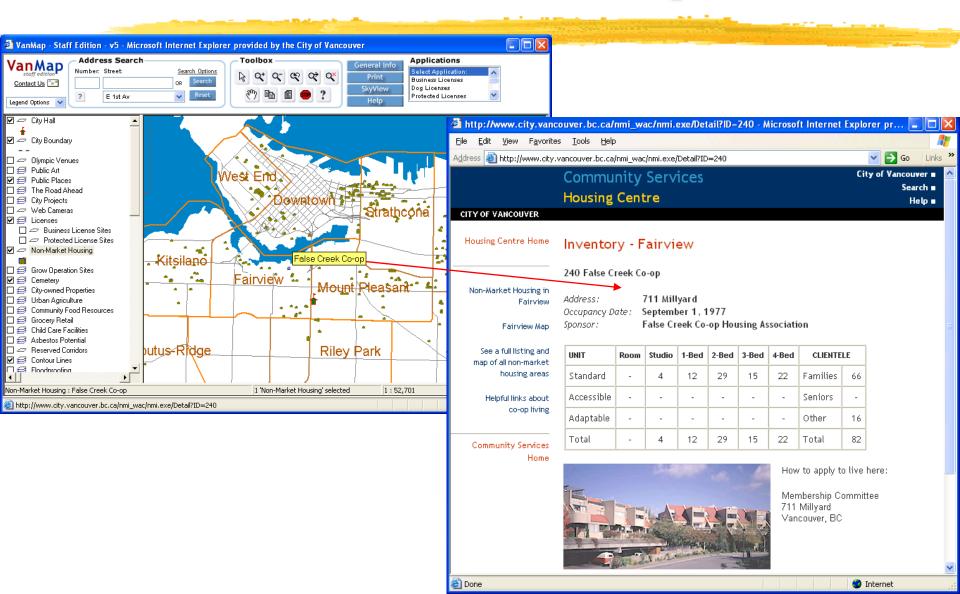
Internet

100%

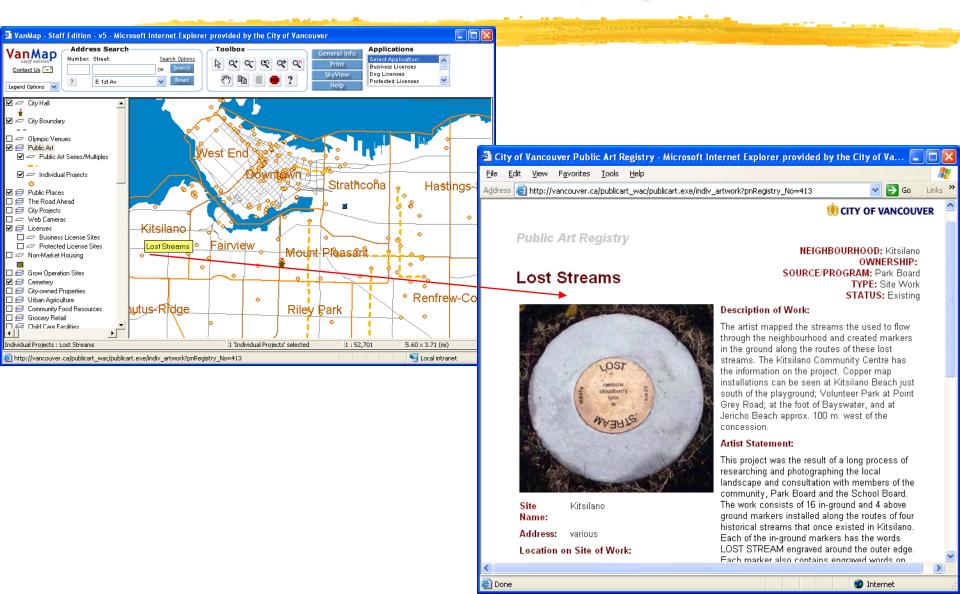
Zoning Bylaw



Non-Market Housing



Public Art Display



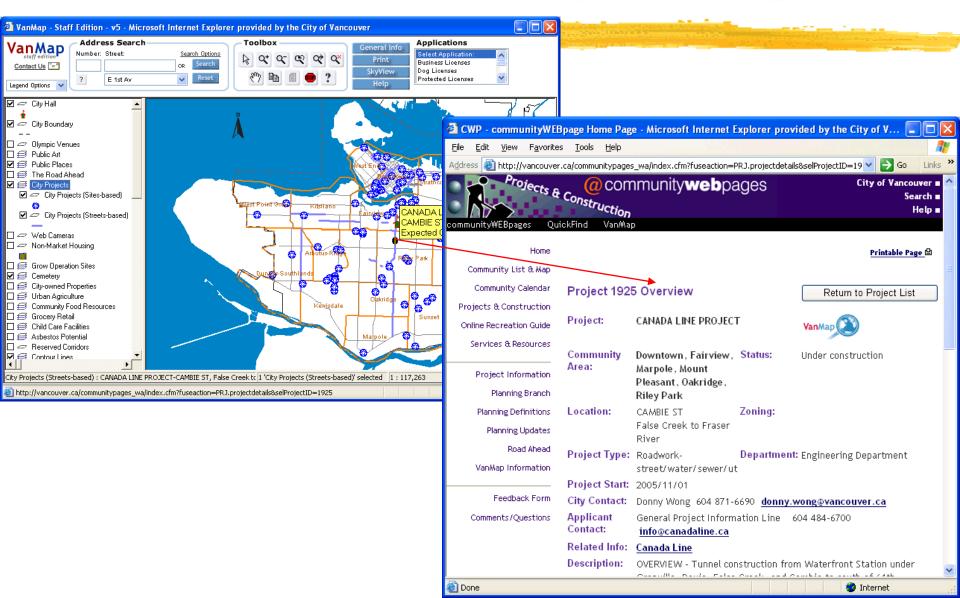
Simple Two-Way Integration

- Click on a feature in VanMap and something happens
- Click on a link in another application and VanMap appears
- Examples include
 - Community Web Pages
 - Community Services Web Viewer

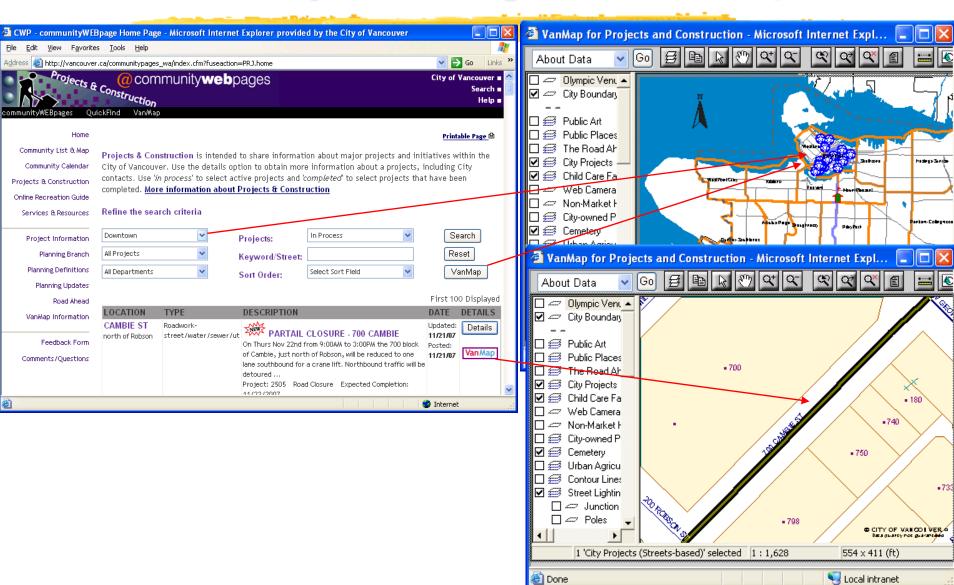
Simple Two-Way Integration: Methods

- Method for VanMap and CWP integration:
 - The projects and construction in CWP are recorded and georeferenced with an address, an intersection or a street segment, which are common keys used in our GIS database;
 - The project ID is used as a passing parameter for the two-way integration at the project level, and the query filters from CWP are applied as a tabular result as well as a filtered map layer in VanMap.
- Method for VanMap and CSG Web Viewer integration:
 - COV standard addresses are used in both systems;
 - The address (civic number and std street) is a common key and a passed parameter in the system URL for the two-way integration.

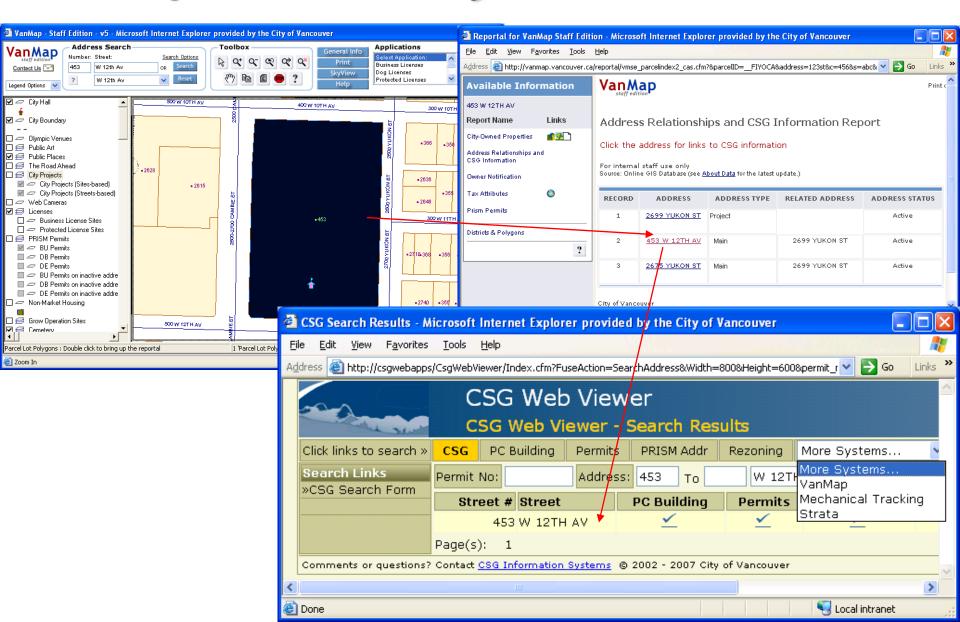
VanMap to Community Web Pages



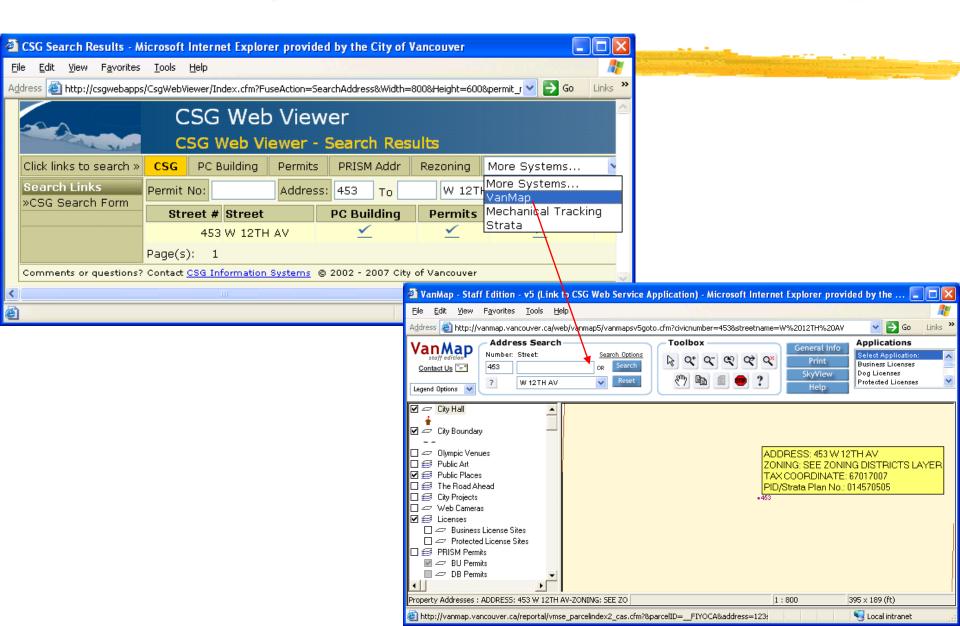
Community Web Pages to VanMap



VanMap to Community Services Web Viewer



Community Services Web Viewer to VanMap

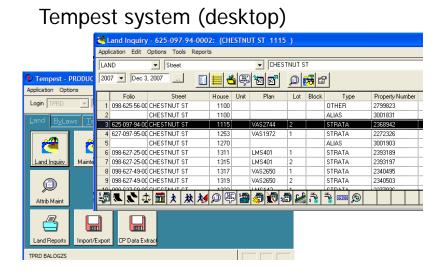


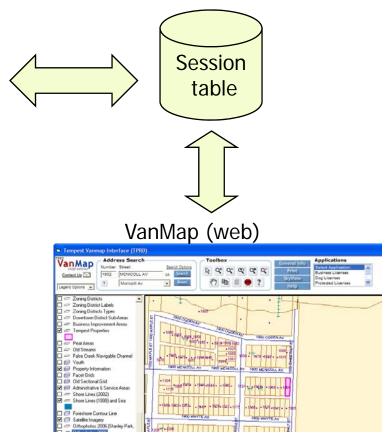
Complex Two-Way Integration

Complete integration of two systems allowing two-way communication.

- Example: Tempest integration with VanMap
 - Tempest folio records displayable in VanMap
 - VanMap parcel records importable by Tempest

How the two systems communicate

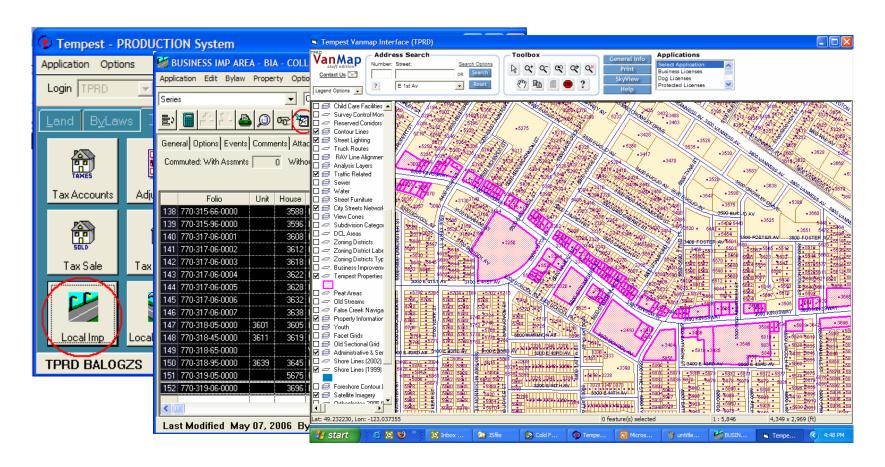




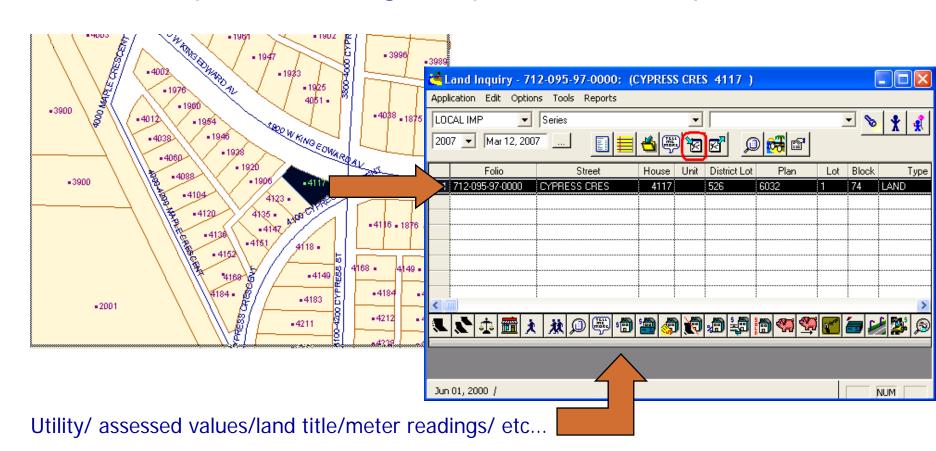
Key Benefits of Tempest-VanMap Integration:

- ✓ Display Tempest folio records in map
- ✓ Retrieve Tempest data from map selections
- ✓ Create / Edit Tempest business objects visually
- ✓ Perform spatial analysis with Tempest data
- ✓ Adding perspective to Tempest data

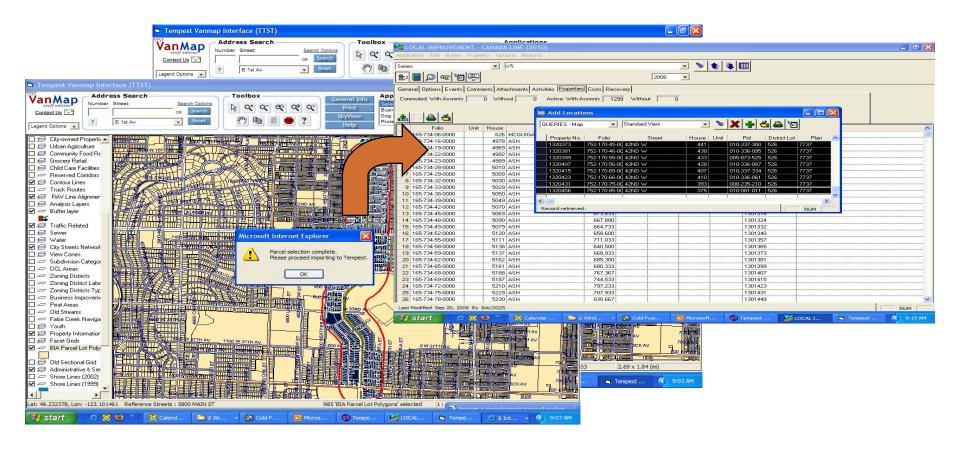
Example: Mapping of Tempest folio records



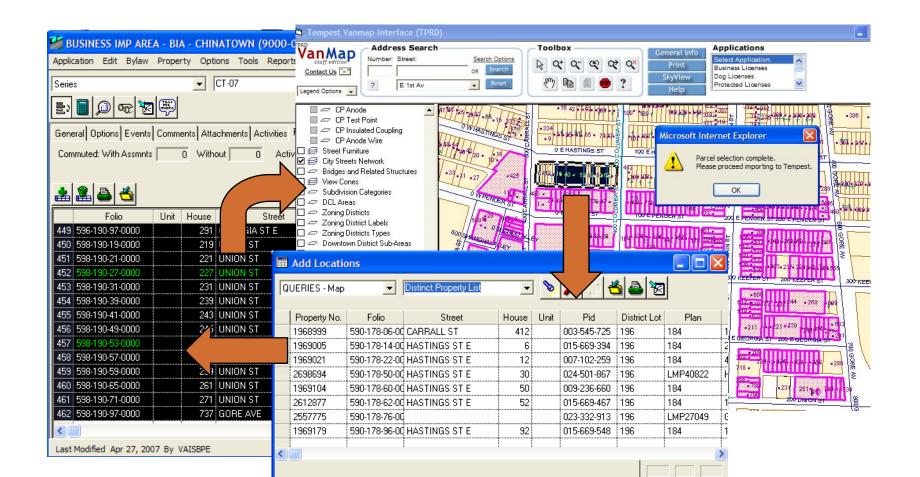
Example: Retrieving Tempest data of map selections



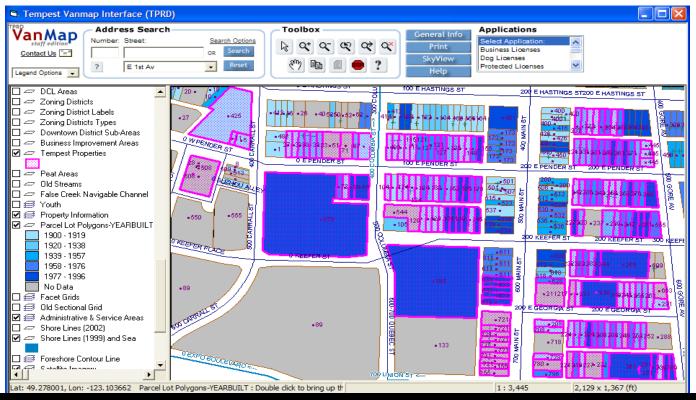
Example: Creating a Tempest business object visually



Example: Editing Tempest business object visually

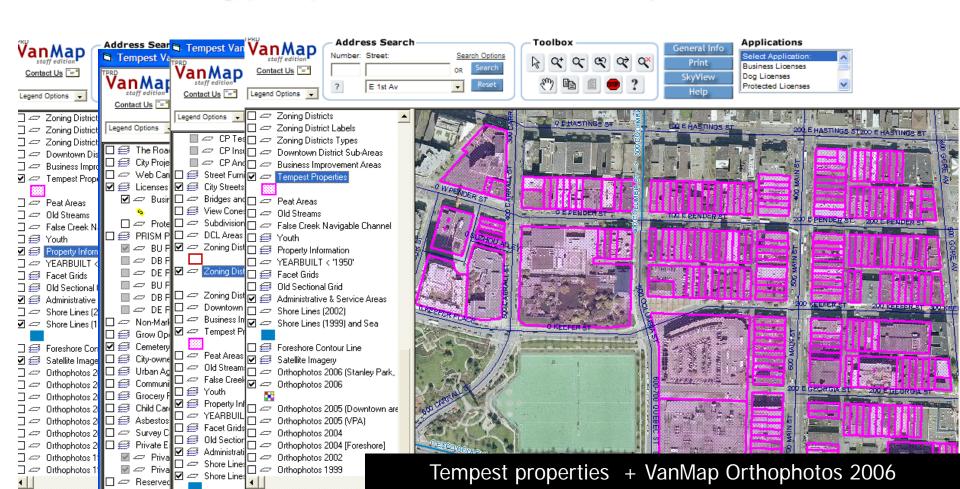


Example: Performing Spatial analysis (Theme)



Tempest properties (pink) + VanMap parcel YearBuilt theme (blue)

Adding perspective / context to Tempest data



Future Integration Plans

- ► 311: requirement is to
 - locate a service request
 - do a proximity search
 - show a spatial pattern and temporal trend in VanMap.
- Amanda: uses an address to open VanMap for more visual map context (e.g. from orthophotos).
- Hansen: VanMap will display data from the asset management system.

Future Integration Plans: Methods

- Maintain the application level integration using methods such as the decorated URL;
- Use a data warehousing approach: e.g. PIMS, for the data level integration;
- Move toward SOA (Service-oriented Architecture) by implementing Web services;
- Use a middleware approach for Enterprise Application Integration (EAI), such as MS BizTalk (for IMS)

Summary

- VanMap is an information integrator providing a visual map context for viewing data from a variety of sources and applications;
- ► The EAI approach has been successfully implemented by integrating data with the business process and VanMap with other enterprise systems.

Public VanMap Can Be Found At

► vancouver.ca/vanmap

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