

# Bentley ProjectWise and practical examples in municipalities

Denmark user meeting

Timo Tuukkanen

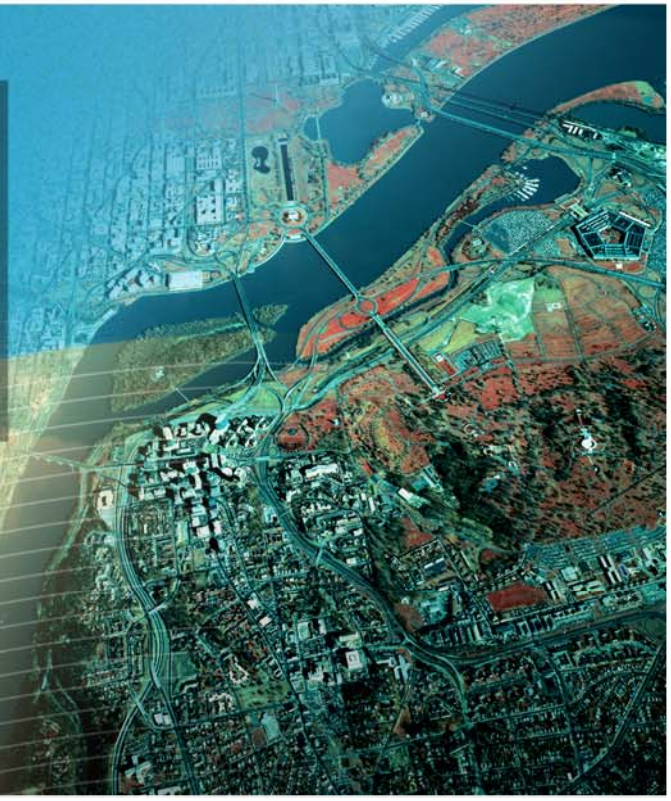
Industry Sales Director Bentley Geospatial - Nordic & the U.S.



# Agenda

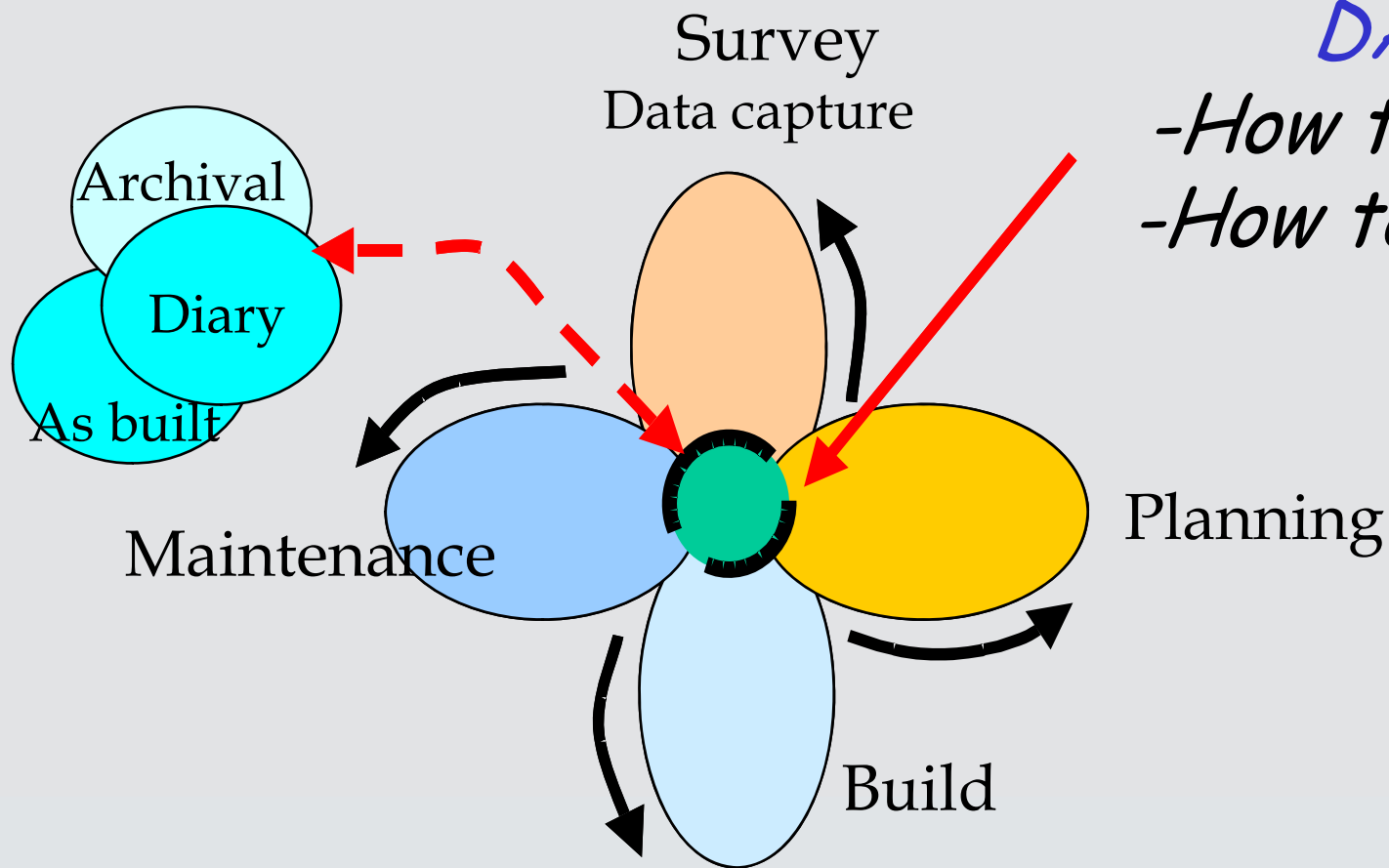
- Data management challenge in municipalities
- ProjectWise solution
- Practical examples about ProjectWise



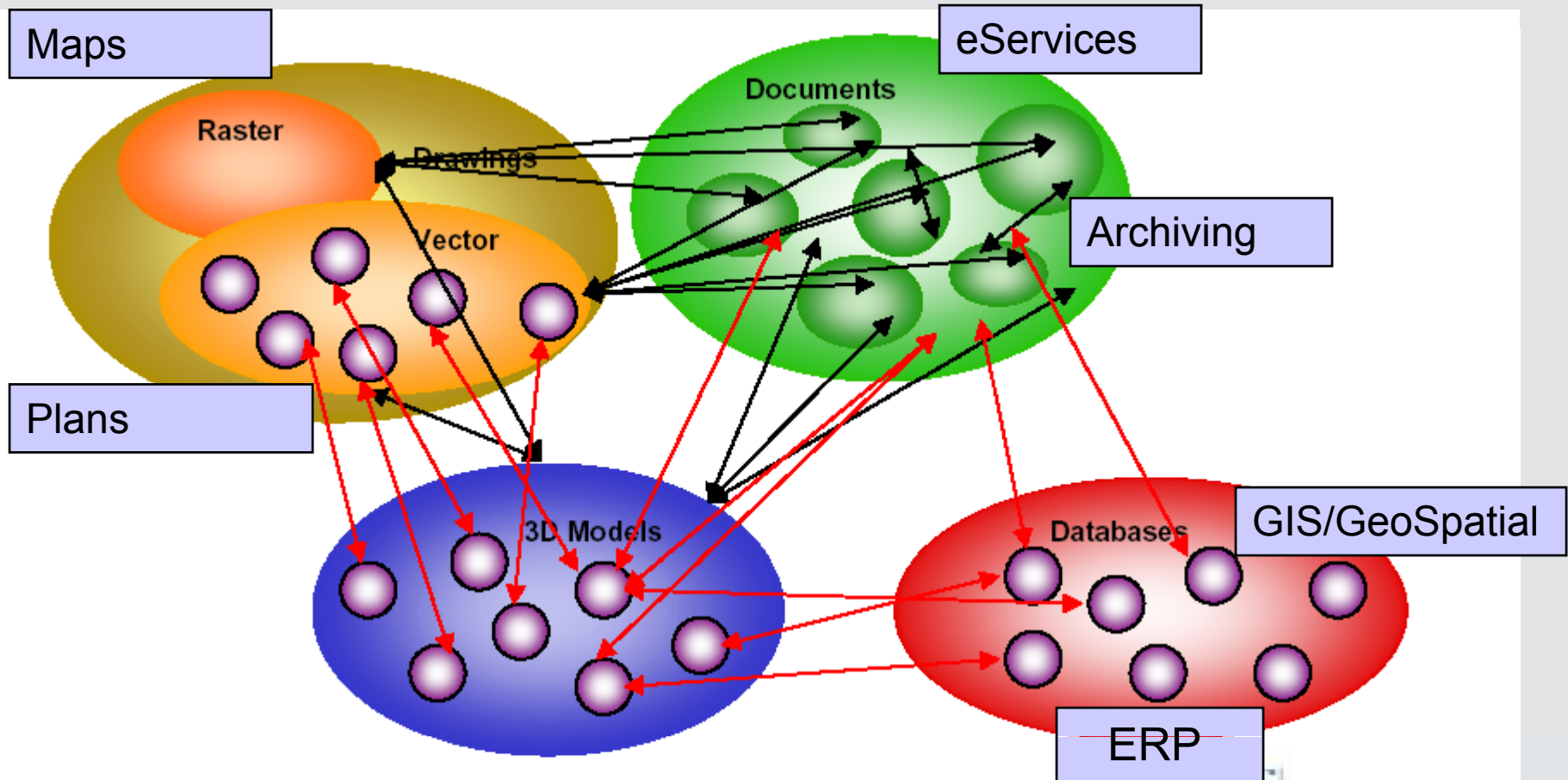


# Data management challenge?

# Data Management

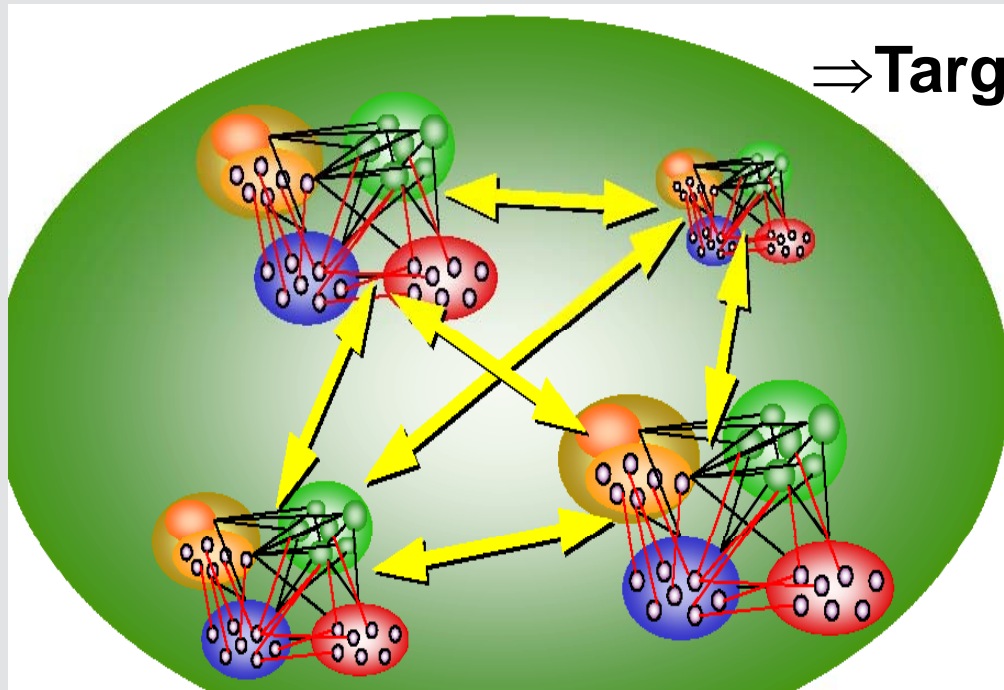


# Data Management



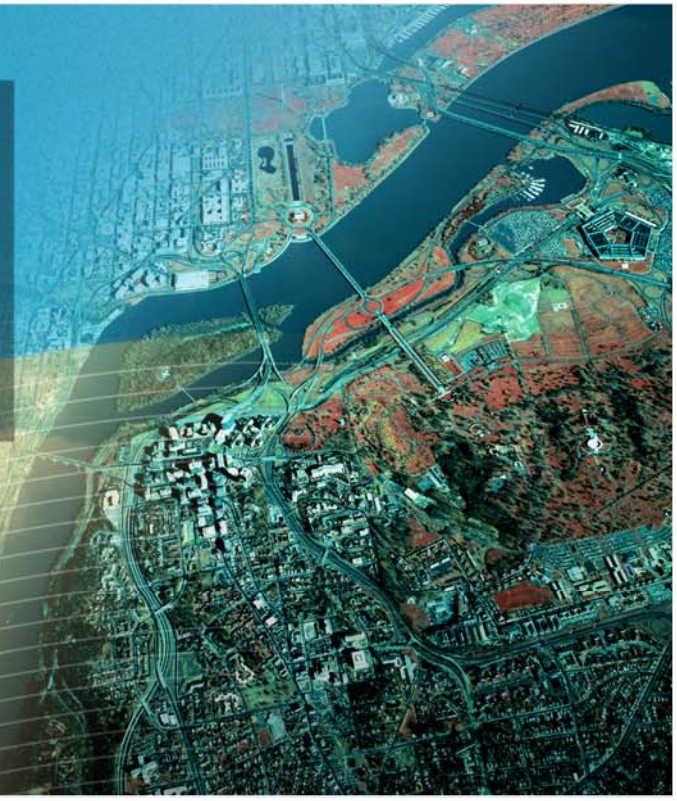
## ... several projects ...

... at the same time ... with linkages to each others...



⇒ Target: "Manage projects"





# Bentley ProjectWise

# Bentley product portfolio

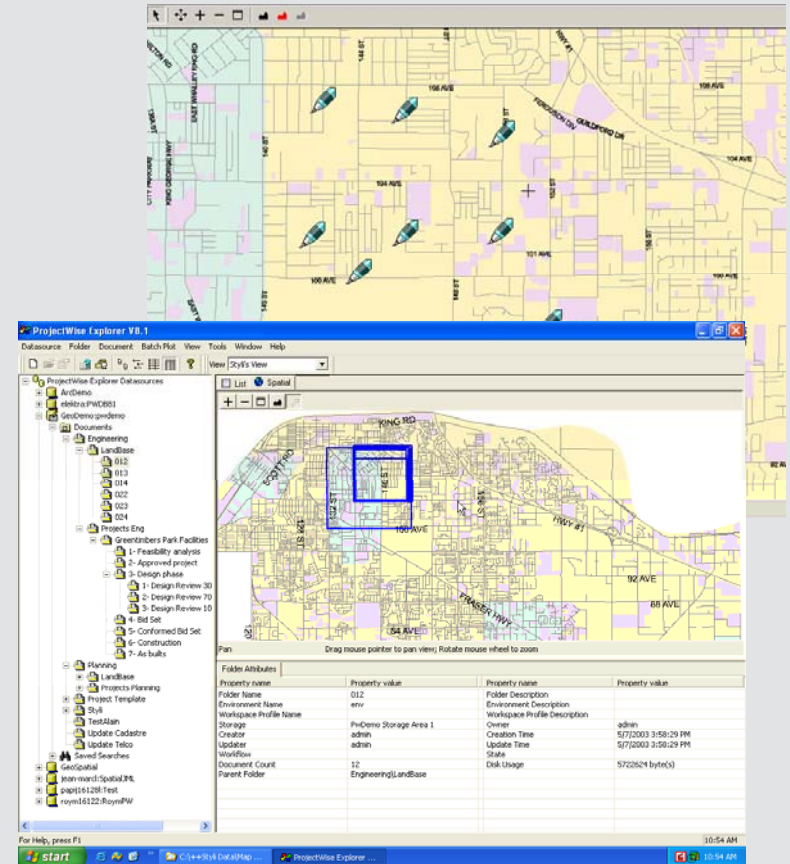
	BUILDING	PLANT	CIVIL	GEOSPATIAL
O&M	Bentley Facilities™	eWarehouse® AXSYS® Integration	ARPS, ROW, LDM Optram	Geo Web Publisher™ Connector™ for ArcGIS Connector™ for Oracle10g
Applications	Bentley Architecture™ Bentley Structural™ Bentley Building Mechanical™ Bentley Building Electrical™ Generative Components™	PlantSpace® products AutoPLANT® products AutoPIPE® products AXSYS Process Bentley CloudWorx™	GEOPAK® products InRoads® products InRail® products MX® products Bentley Rebar™	Bentley Map™ Descartes™ I/RAS B™ Haestad Methods Solutions® Bentley Water/Wastewater™ Bentley Copper/Fiber/Coax™ Bentley Inside Plant™
Power Products			PowerSurvey™ PowerCivil™ Power Rebar™	PowerMap™ PowerMap Field™
Extensions	TriForma®	Schematics®	CivilPAK®	Geospatial
Platform	<b>MICROSTATION V8</b> <small>XM edition</small> MicroStation® PowerDraft™ Bentley® Redline™ Navigator™		<b>PROJECTWISE V8</b> <small>XM edition</small> Integration Server WebServer Caching Server Plot Server Publishing Server	



# Bentley ProjectWise

## Information management ...

- Document and database management
- Versioning and workflow
- Spatial query and locate
- Publishing
- Interoperability



# Bentley ProjectWise

The screenshot displays the Bentley ProjectWise Explorer 2004 Edition interface. On the left, a tree view shows document folders under 'Dokumentit', with a red circle highlighting the 'Dokumentit' folder and its sub-items. A purple box labeled 'DOCUMENT FOLDERS' is overlaid on this area. On the right, a 'YHDYSKUNTAPALVELUT\_JK.doc' document is open, showing a 'ATTRIBUTE INFORMATION' dialog box. This dialog contains various fields for document metadata, including project numbers, names, and dates. A dropdown menu is open over the 'Aineistolaji' field, listing categories like 'Kiinteistö', 'Kunnallistekniikka', and 'Maaperä'. At the bottom, the Windows taskbar shows the Start button, active windows, and the system clock at 7:04 AM.

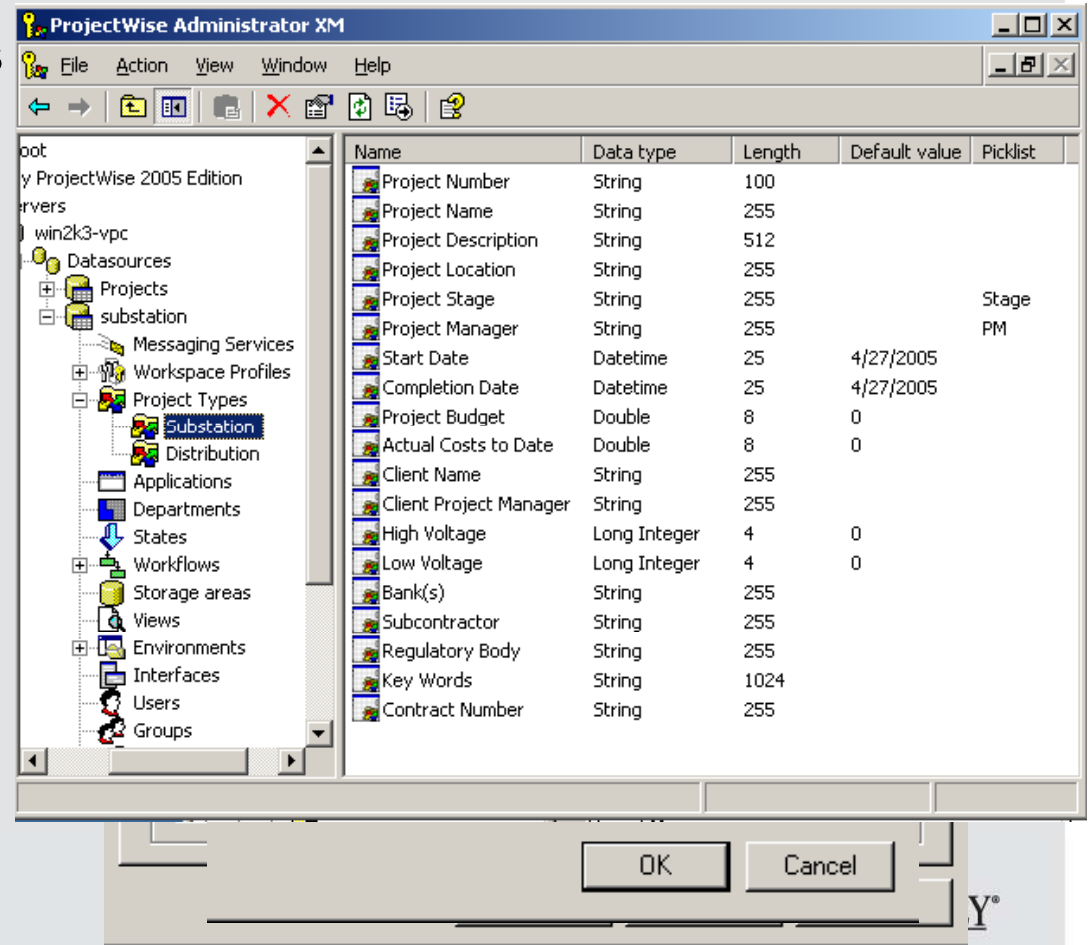
**DOCUMENT FOLDERS**

**ATTRIBUTE INFORMATION**

Field	Value
Päähankenumero	
Päähankkeen nimi	
Vastuuyksikkö	
Hankenumero	H00008
Hankenimi	Ylläpitotoiminta
Vastuuyksikkö	hake
Yksikkökohtainen työnnumero	0
Aineistolaji	Kiinteistö
Hankevastaava	Jukka Kivelä
Toiminta	Tietohallinto
Laji	Asiak
Nimi	YHDYSKUNTAPALVELUT_JK.doc
Kuvaus	Kuvaus 2
Toimintakertomus	Toimintakertomus 2003 tietohallinnon
Tallentaja	Kivelä jukka
Tallennus pvm	2/17/2004
Suunnitelmanumero	0
Arkistointinumero	0
Tekijä	Kivelä jukka
Dokumentin diaarinumero	
KANSIONRO	3002

# Project Properties

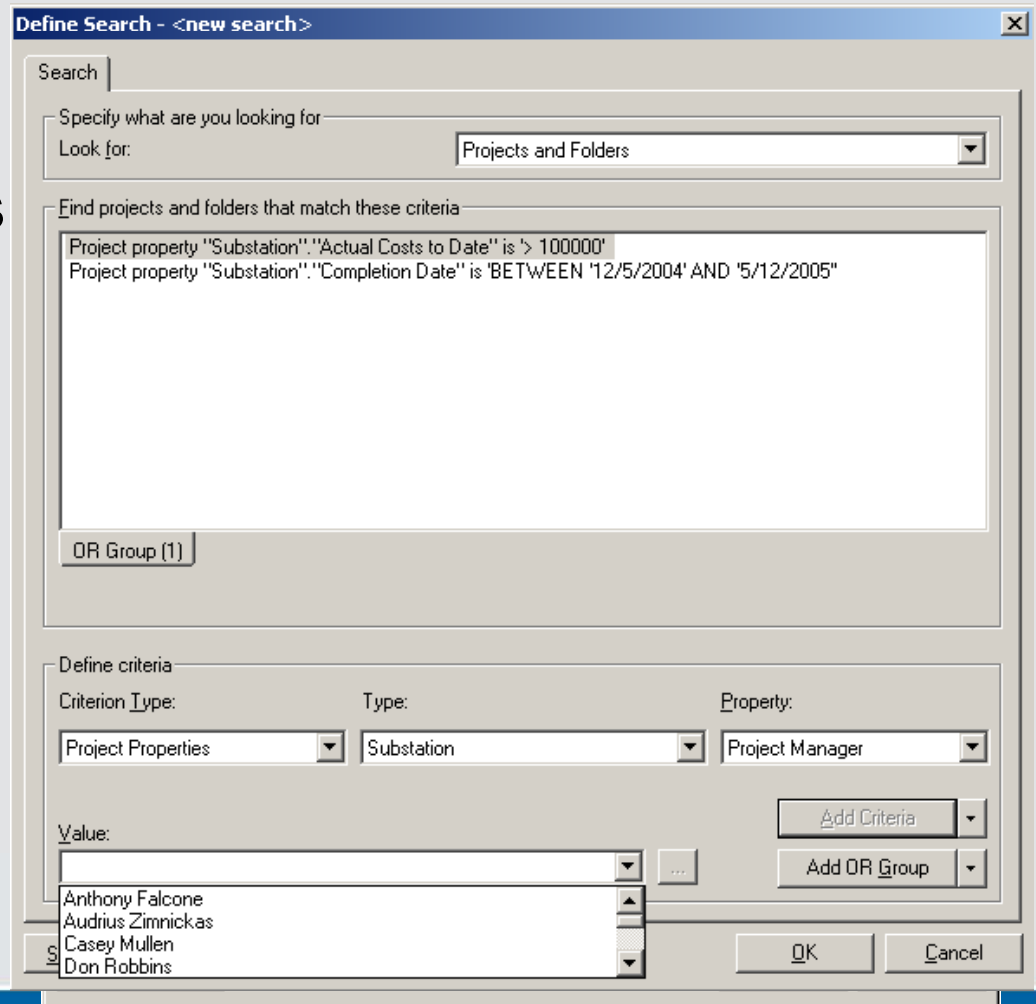
- Different projects (or types of projects) may have different sets of information that are important.
- Project Types are defined by Administrator
- Supports
  - Strings
  - Numerics
  - Dates
  - Default Values
  - Pick-lists





# Project Searching

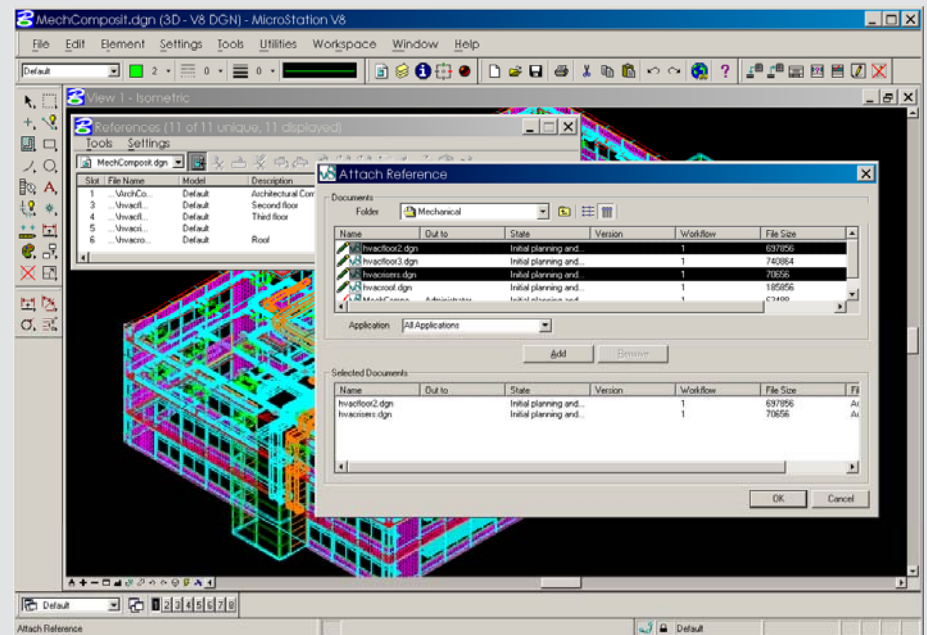
- Allow searching for Projects/Folders based on:
  - General/Folder Properties
  - Project Types
  - Project Properties
  - Geospatial data (with Geospatial module)



# ProjectWise Integrated Applications

## Supported associations ...

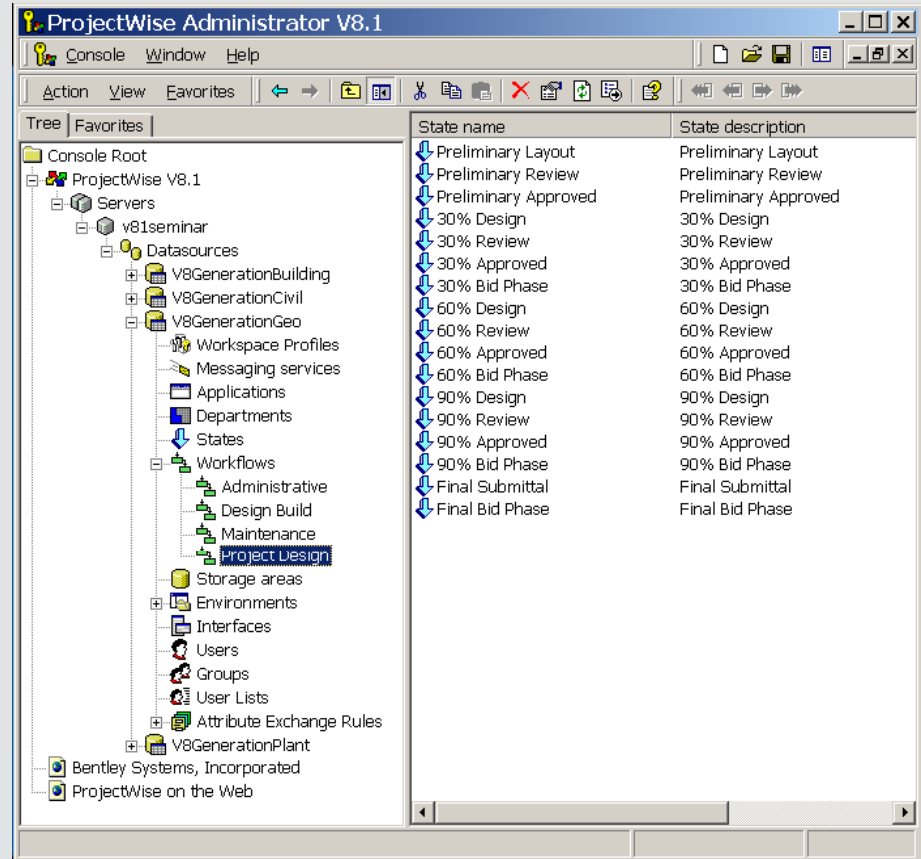
- MicroStation
- MicroStation applications
- AutoCAD 2007i, 2006, 2005, 2004, 2002, 2000
- ArcGIS (ESRI)
- Microsoft Office
- DGN/XFM
- Folders
- Almost any document type



# Workflow Management

Easy to configure ...

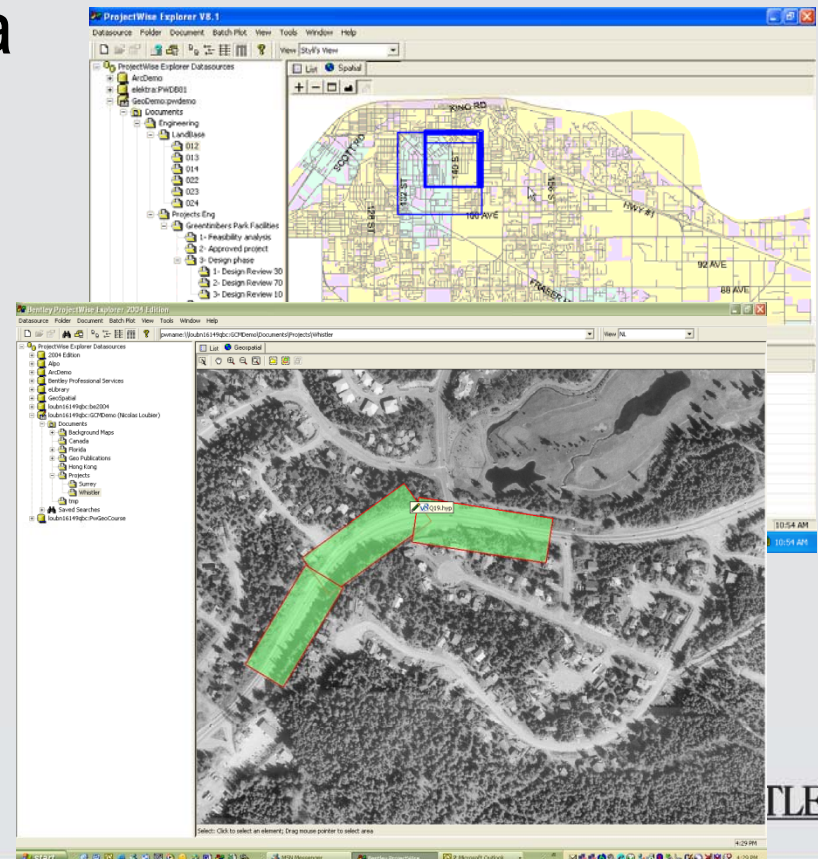
- States
- Messaging
- Groups



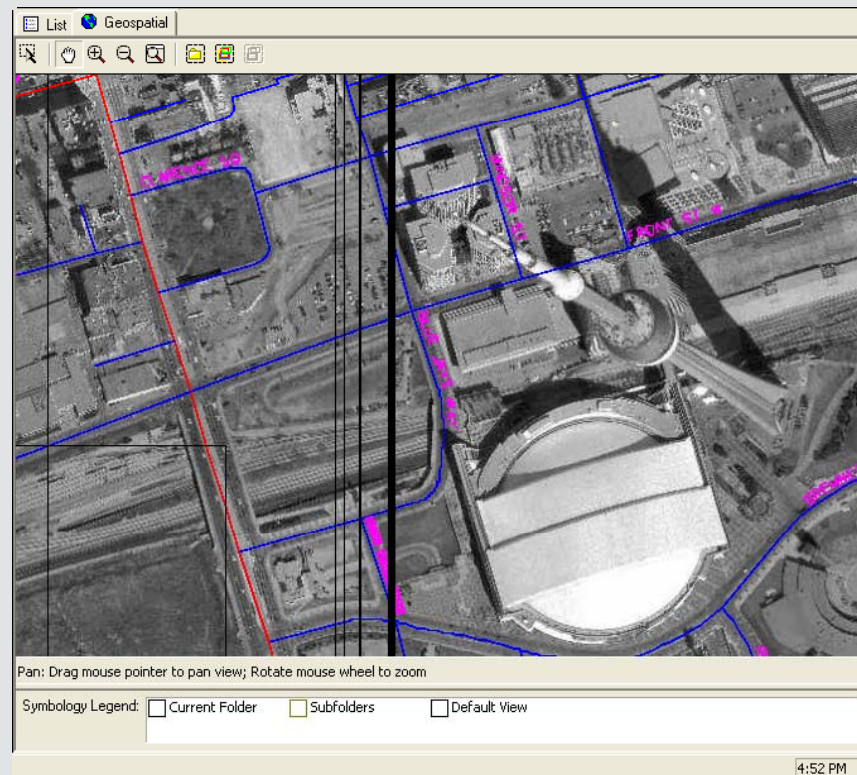


# ProjectWise Geospatial Management

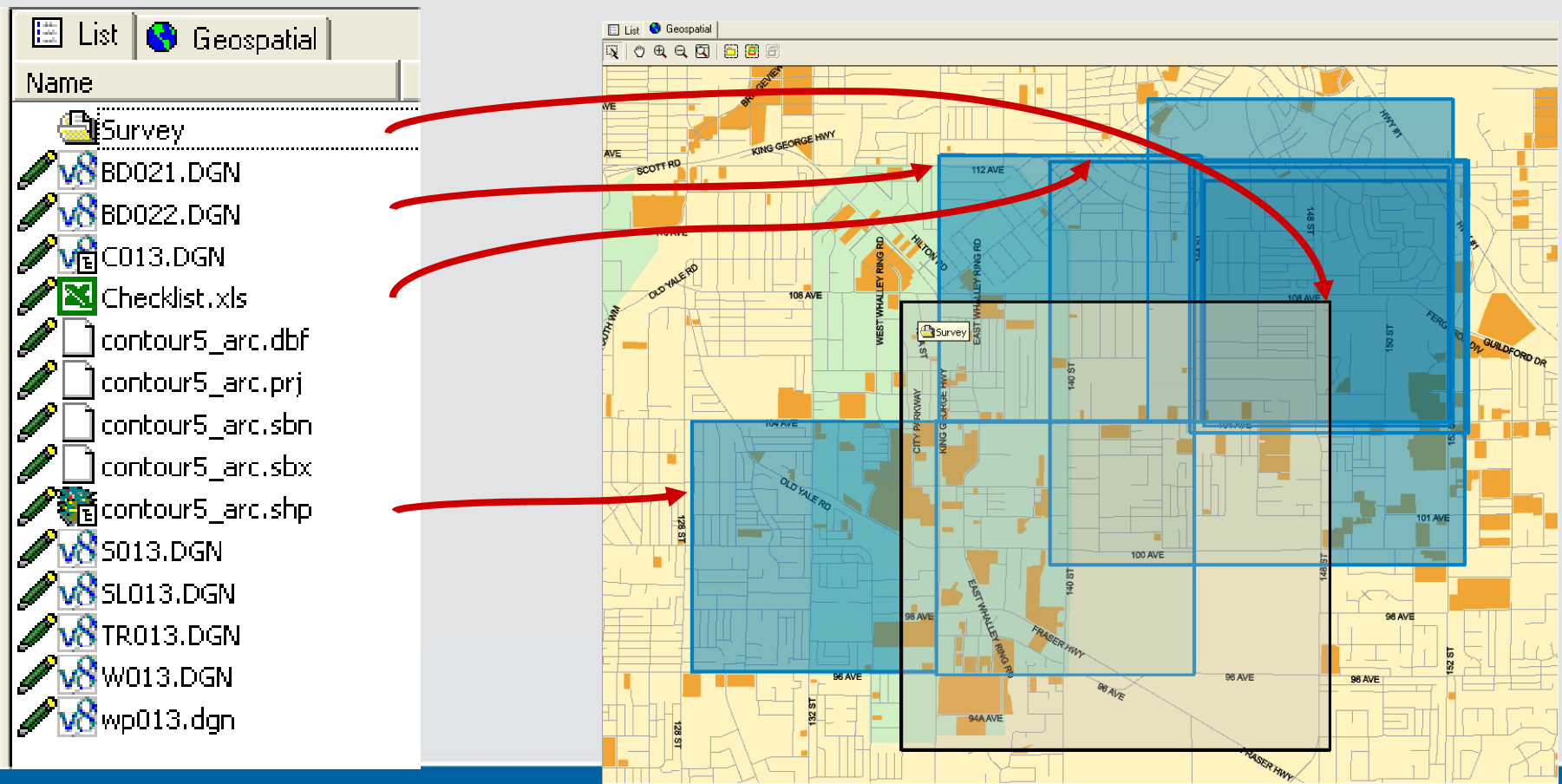
- Adding spatial context to a managed environment ...
  - Spatial indexing
  - Projection management
  - Query and locate
  - Spatial display



# Scaleable Background Maps



# Spatially Indexed Documents



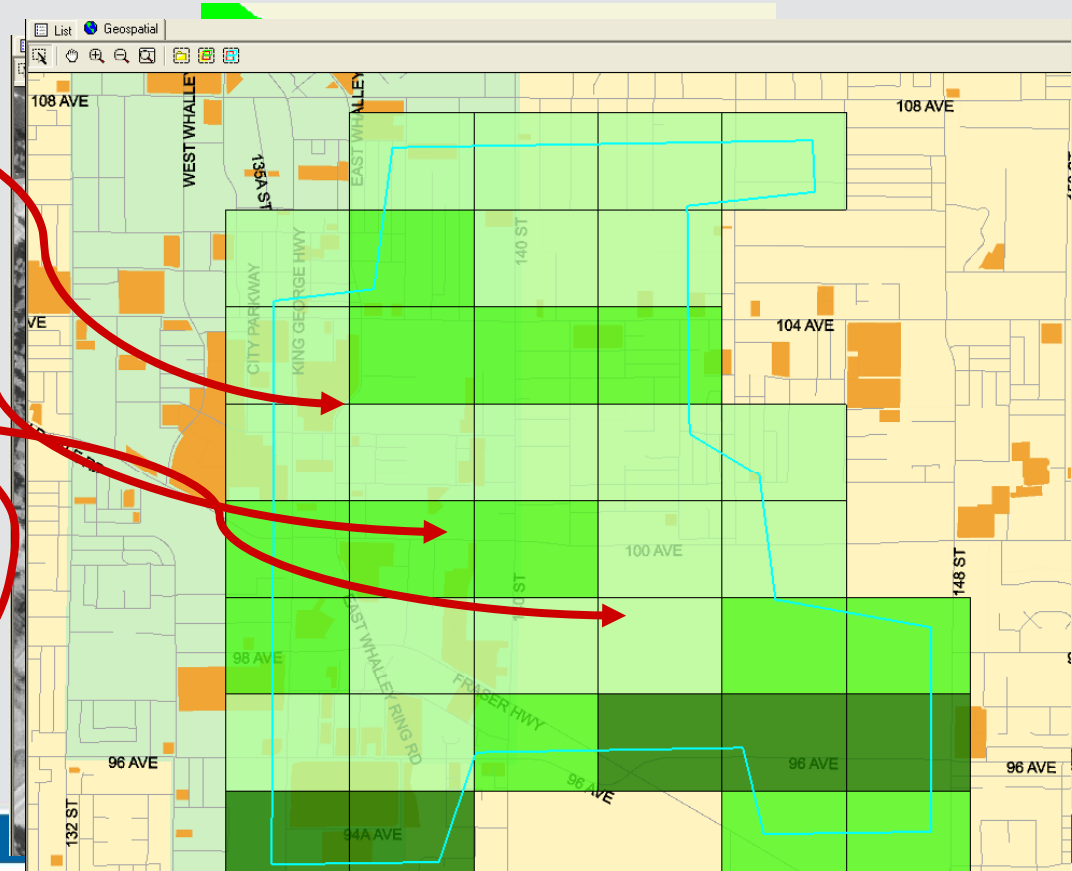
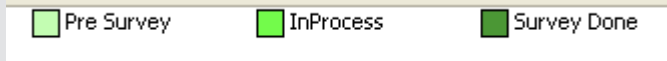


# Spatial Display Options

Shaded ROI's

Centroid Pushpins

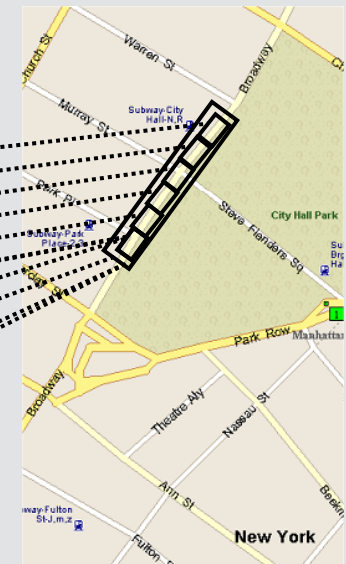
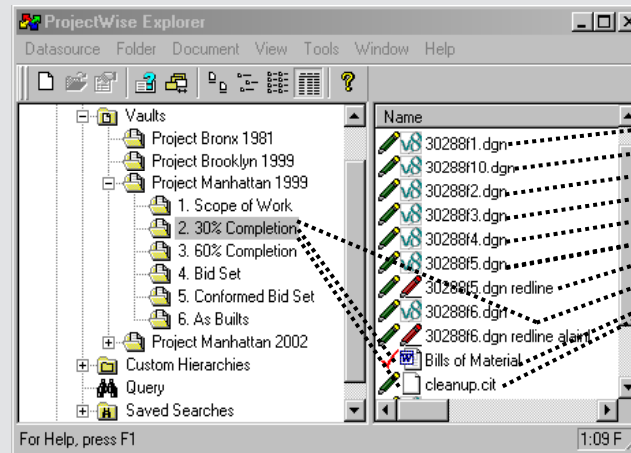
Metadata-driven  
symbolization with  
legend control



# Search

Find and query content ...

- Search by document and folder attributes
- Locate documents through text search
- Find documents by spatial location

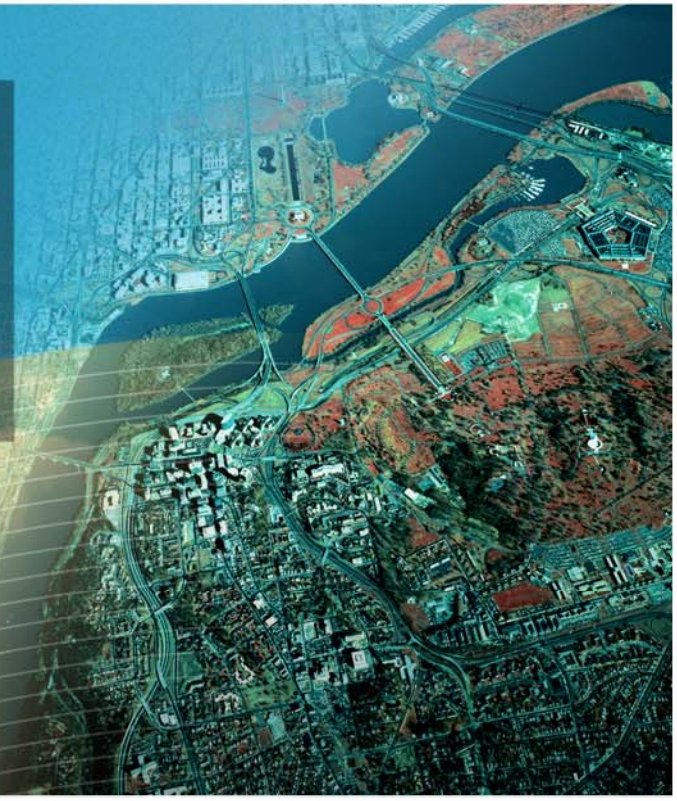


# PW Web

The screenshot shows a Microsoft Internet Explorer window displaying a web-based properties dialog for a file named 'CB1.dgn'. The dialog has several tabs: 'General', 'Attributes', 'More Attributes', 'File Properties', and 'Audit Trail'. The 'Audit Trail' tab is active, showing a table of actions performed on the file.

Action Name	Date/Time	User Name	Additional Data	Comments
Checked in	5/13/2004 8:58:36 PM	admin		No Changes made
Checked out	5/13/2004 8:57:17 PM	admin		
State Changed	5/13/2004 8:53:02 PM	admin	Set to Draft	

The dialog also includes sections for 'File' (File Name, File Size, File Updated By, Workspace Profile, Inherited From) and 'Folder' (Path, Environment name, Titleblock, Description, Storage). At the bottom, there are buttons for 'Modify', 'Close', 'Save', 'Cancel', 'Save As', and 'Printable View'. The browser's address bar shows 'Done' and 'Local intranet'.



# ProjectWise examples



## Case - City planning document mgmt

- Helsinki City Planning Department
  - The Helsinki City Planning Department is responsible for the master planning, traffic planning, and town planning of Helsinki.
  - The City Planning Department has almost 300 employees.
  - Design platform: MicroStation + Stella application
  - Challenge:
    - » Plans stored on X:\, Y:\files, c:\myfiles\cityplans, etc. etc. ???
    - » Average age of planners growing
  - Targets:
    - » Not to loose existing job (plan documents)
    - » Manage plan document better
    - » Access control across their business (not IT dependent)
  - ProjectWise implementation started 2006 to solve the problem
  - Now in production

# Case Espoo

- City of Espoo
  - » Population 230.000
  - Several ProjectWise implementations
    - » City Planning Center
    - » Building Permission Center
    - » Technical Sector

## Case – Replacement of paper drawing archive

- Espoo Technical Center
  - Technical Center is responsible for Espoo infrastructure (roads, water and waste water) , green areas and for service buildings and spaces (building and maintenance). It is also specialist for the geotechnical issues within the City. ~300 people.
  - Design platform: Mainly AutoCAD
  - Challenge:
    - » VAX/VMS system maintenance ended in the old digital archive system.
  - Targets:
    - » Possibility to manage files
    - » Distribute drawings better
    - » Paper archives to be abandoned.
  - ProjectWise implementation done 2002
  - 200 users trained

## Case - Digital Photo Archive

- Digital Photo Archive – City of Espoo
  - 2004/2005 Espoo started an internal “Digital Photo Archive” specification project for defining and specifying the future system to be used for storing digital photos taken by the technical sector and later to be extended to other departments.
  - They turned to Bentley in September 2005 asking if PW with Geospatial Management could do the job.



# Case - Digital Photo Archive

- Digital Photo Archive needs
  - Ability to search photos by attribute and location.
    - » Location by: Area, "arrow", point
  - Easy/simple user interface to import and view the files.
  - Need to integrate with their GIS solution (from Tekla)

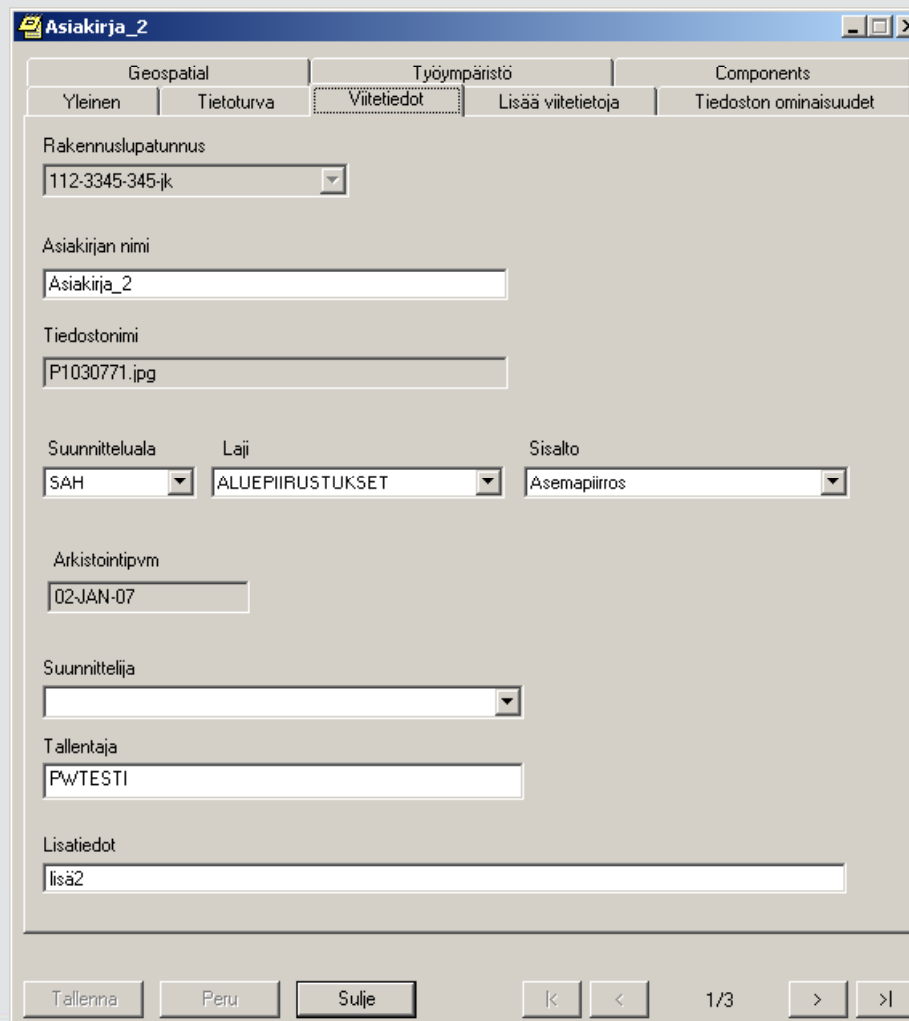
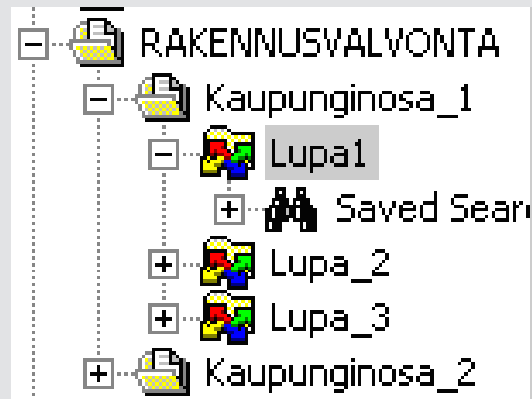
# Case – Digital Photo Archive

- After the specification project
  - PW Geospatial Management purchased license to existing ProjectWise environment
  - ProjectWise tools customized into
    - » PW Windows client to display documents/photos "thumbnail" previews.
    - » Document Creation Wizard to allow easy creation of documents/photos in the database.

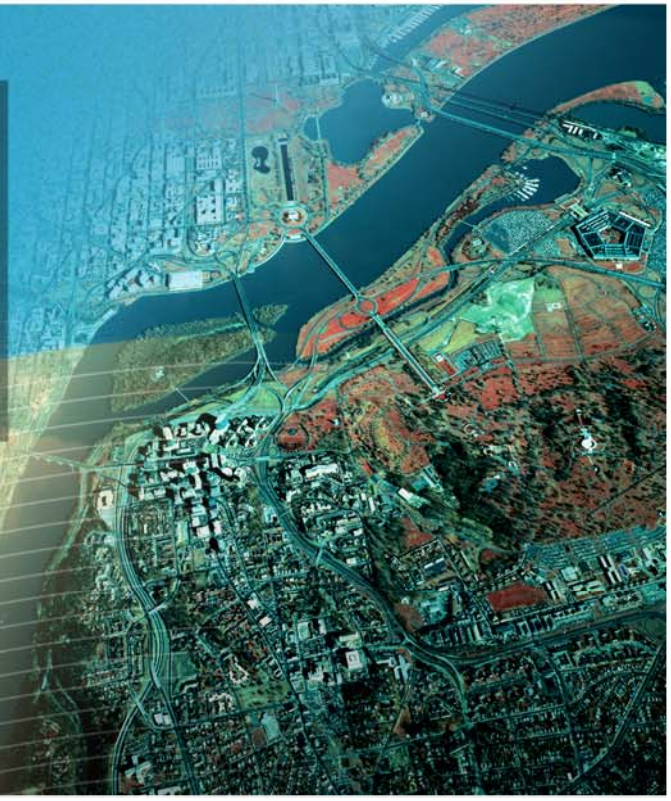
## Case – Building Permission Drawing Archive

- Digital Archive application for building permission department.
- Building permission documents stored using proper access privilege - including both files (primarily building permission drawings) and attribute data
- Easy to use Excel application to upload documents to the system.
- Capacity of the system in basic configuration hundreds of thousands of documents. Now, over 65.000 documents imported into the system
- Documents can be imported in various preferred format, for example in TIFF raster or PDF file.
- Viewers of previously mentioned are being integrated to the system.
- Every week new city areas accessible from digital archive.

# Examples about user interface







Thank You!