





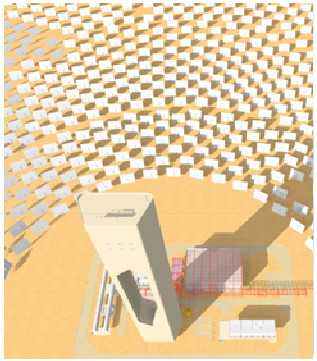


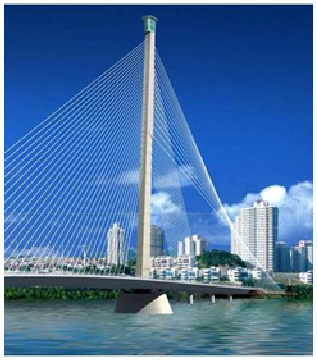
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Bentley Map Tips and Tricks

Keith Raymond, Product Manager Bentley Map

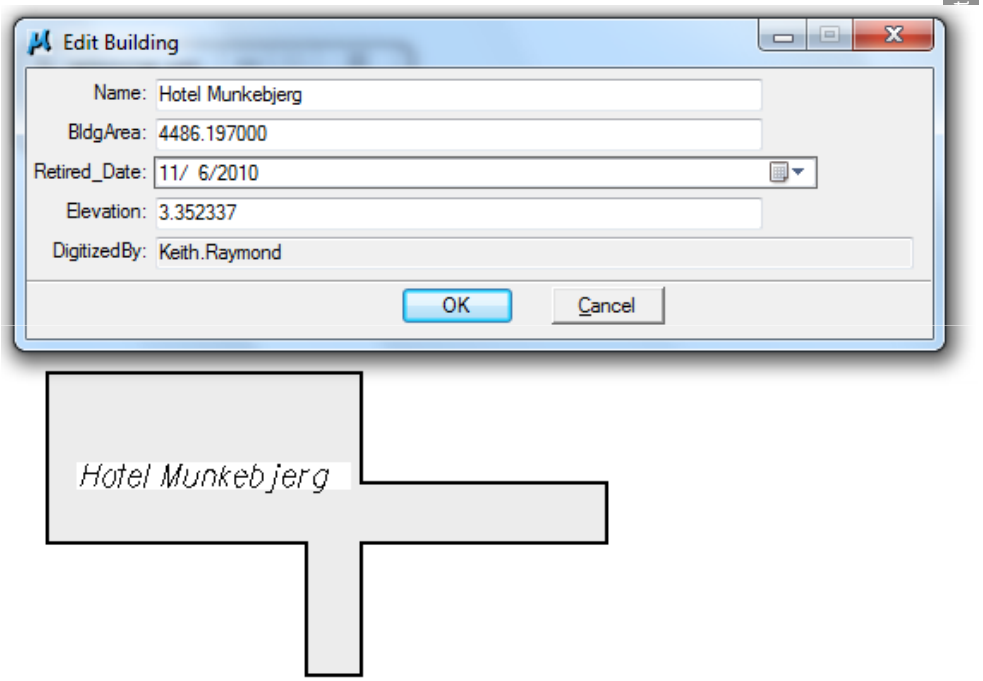
Bentley
Sustaining Infrastructure

Tips and Tricks

- Area calculations
- Z elevation
- Read scored feature
- Annotation with VBScript
- Interoperability
  - Saved IMPX files
  - Assign elevation
- Split/Merge
- 3D City

Area Calculations and Elevations

- Really using functions to assign properties automatically
- Example:
  - Area
    - [XFM.Round([Building.AREA],3)]
  - Z elevation
    - [Building.FeaturesCentroid.Z]
  - Username
    - System.Environment.UserName()



Use areatest.xml

Read Scored Feature

- An XFM key in which features are evaluated and assigned properties based on symbology
  - IIf(Pipe.color=1, "150", IIf(Pipe.color=2,"300","80"))
- If color is 1, diameter is assigned 150
- If color is 2, diameter is assigned 300
- All others are assigned 80
- Works for reset and review (including reference files)

Key	Synch Preference	Value Type	Value
placing	☑	value	
readScoredFeature	☐	expressionEvaluator	IIf(Pipe.color=1, "150", IIf(Pipe.color=2,"300","80"))

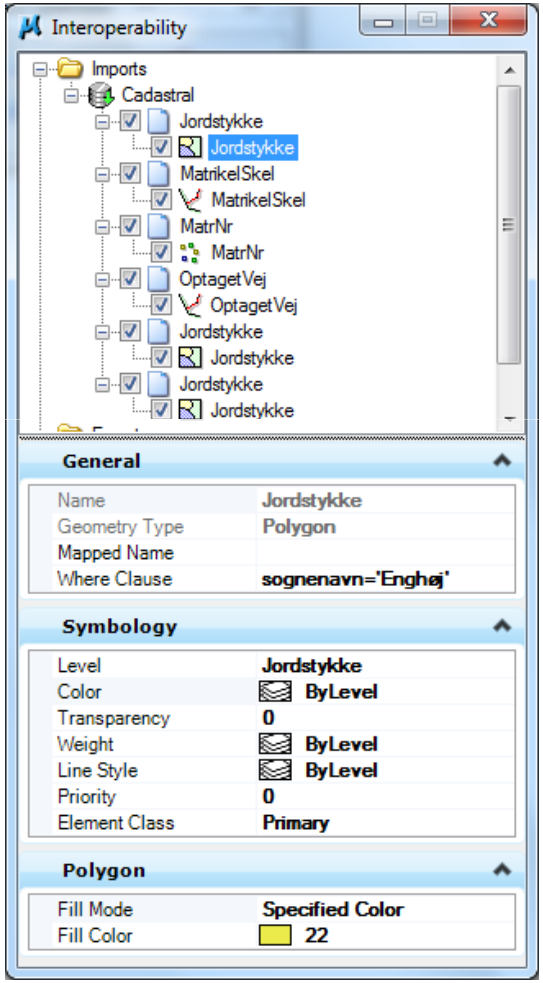
Annotation with VBScript

- Format complex annotations
- Latitude and Longitude example
- Sets annotation based on positive and negative lat/long
- Add degree, minute and second marks
- Format to two lines

```
Function formatIt ([LATITUDE], [LONGITUDE])
  LAT= Fix(Abs([LATITUDE]))
  if [LATITUDE] > 0 and [LATITUDE] <= 90 then
    formatIt = "N " & LAT & Chr(186)
   ElseIf [LATITUDE] < 0 and [LATITUDE] => -90 then
    formatIt = "S " & LAT & Chr(186)
  ElseIf [LATITUDE] = 0 then
    formatIt =  LAT & Chr(186)
 Else
    formatIt = "Not a valid latitude"
    Exit Function
  End If

   Min= Abs(([LATITUDE] - Fix([LATITUDE]))) * 60
   formatIt = formatIt & Int(Min) & "'"
   Sec = Fix(([Min] - Fix([Min])) * 60)
   formatIt = formatIt & Sec &"""""

' add newline
   formatIt = formatIt & Chr(10)

   LNG = Fix(Abs([LONGITUDE]))

   if [LONGITUDE] > 0 and [LONGITUDE] <= 180 then
     formatIt = formatIt & "E " & LNG & Chr(186)
   ElseIf [LONGITUDE] < 0 and [LONGITUDE] => -180 then
     formatIt = formatIt & "W " & Abs(LNG) & Chr(186)
   ElseIf [LONGITUDE] = 0 then
     formatIt = formatIt & LNG & Chr(186)
 Else
    formatIt = "Not a valid longitude"
    Exit Function
   End If
   Min= Abs(([LONGITUDE] - Fix([LONGITUDE]))) * 60
   formatIt = formatIt & Int(Min) & "'"
   Sec = Fix(([Min] - Fix([Min])) * 60)
   formatIt = formatIt & Sec &"""""
End Function
```

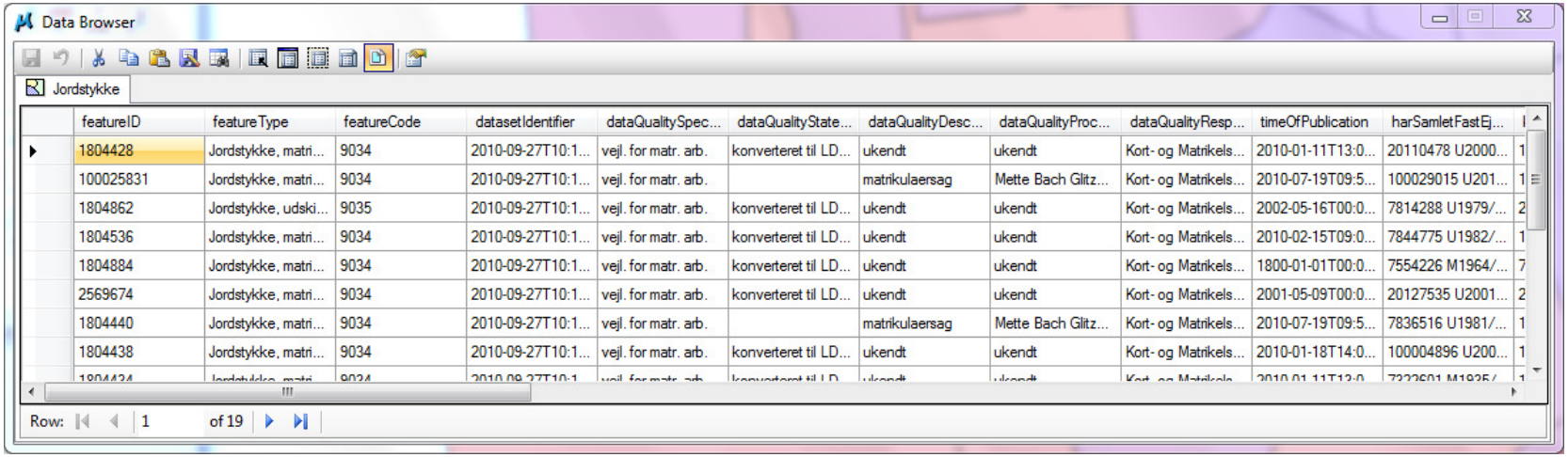
Interoperability

- Label points by selecting a text type and defining a property
- Divide features into classes using ‘Where’ clause
- Save import session for reuse
- Reference import file



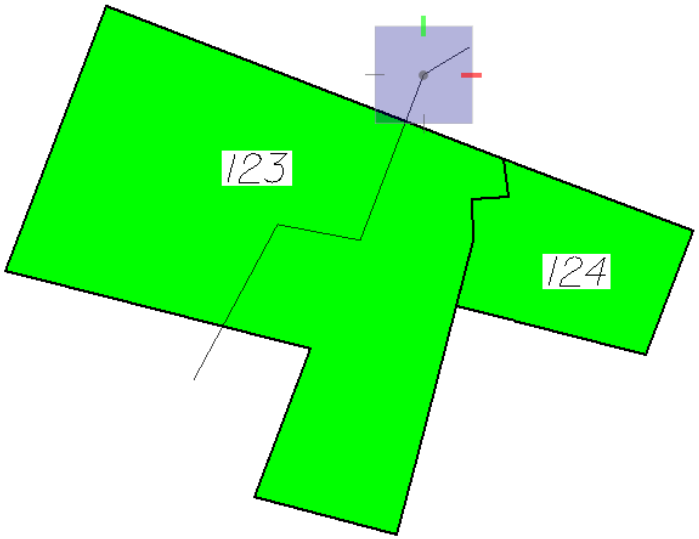
Data Browser

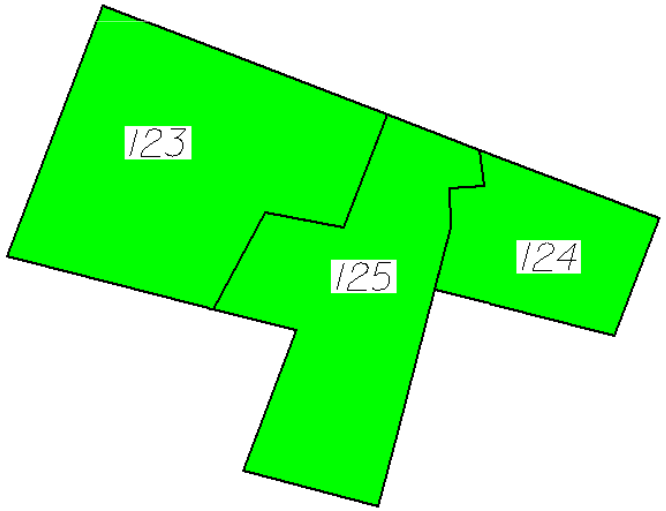
- Review, report, edit attribute data in a spreadsheet like grid
- Sort, query, filter results
- Output to various formats; CSV, TXT, XML, HTML
- Copy and Paste to Windows programs



Split/Merge Polygons

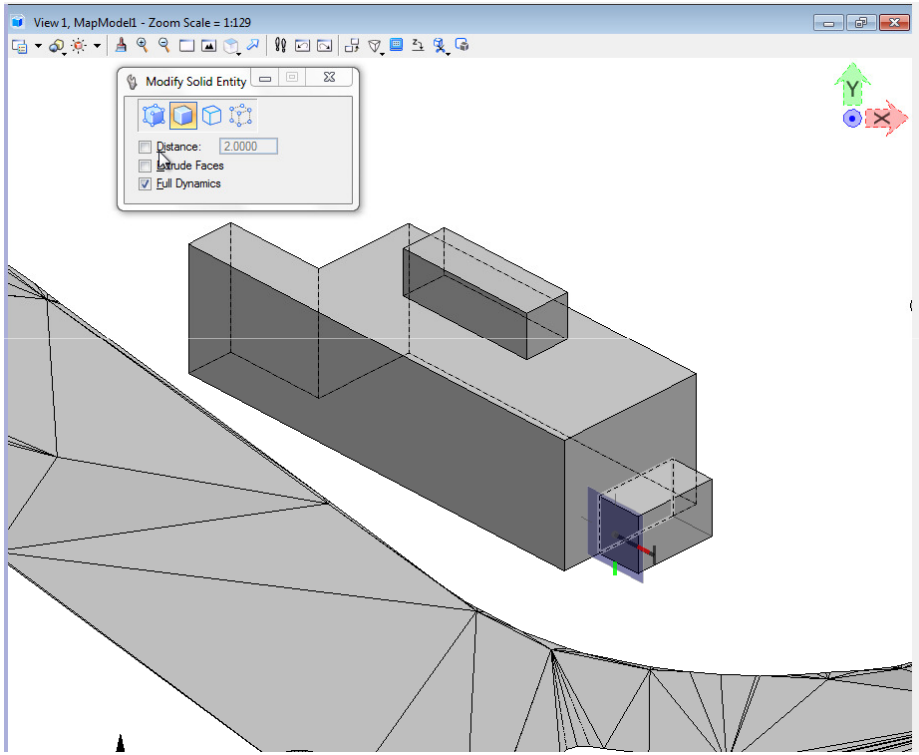
- Splits and merges polygons
- If properties exist:
  - Split: both new features get the same properties
  - Merge: first selected polygons properties are retained





3D City Tools

- Leverage MicroStation solid modeling tools to build the model
- Bentley Map tools to promote collection of 3D shapes to one building feature
- Assign properties
- Convert from polygon representation to solid and back for storage and posting



Modeling **Thematic**

Bentley Sustaining Infrastructure