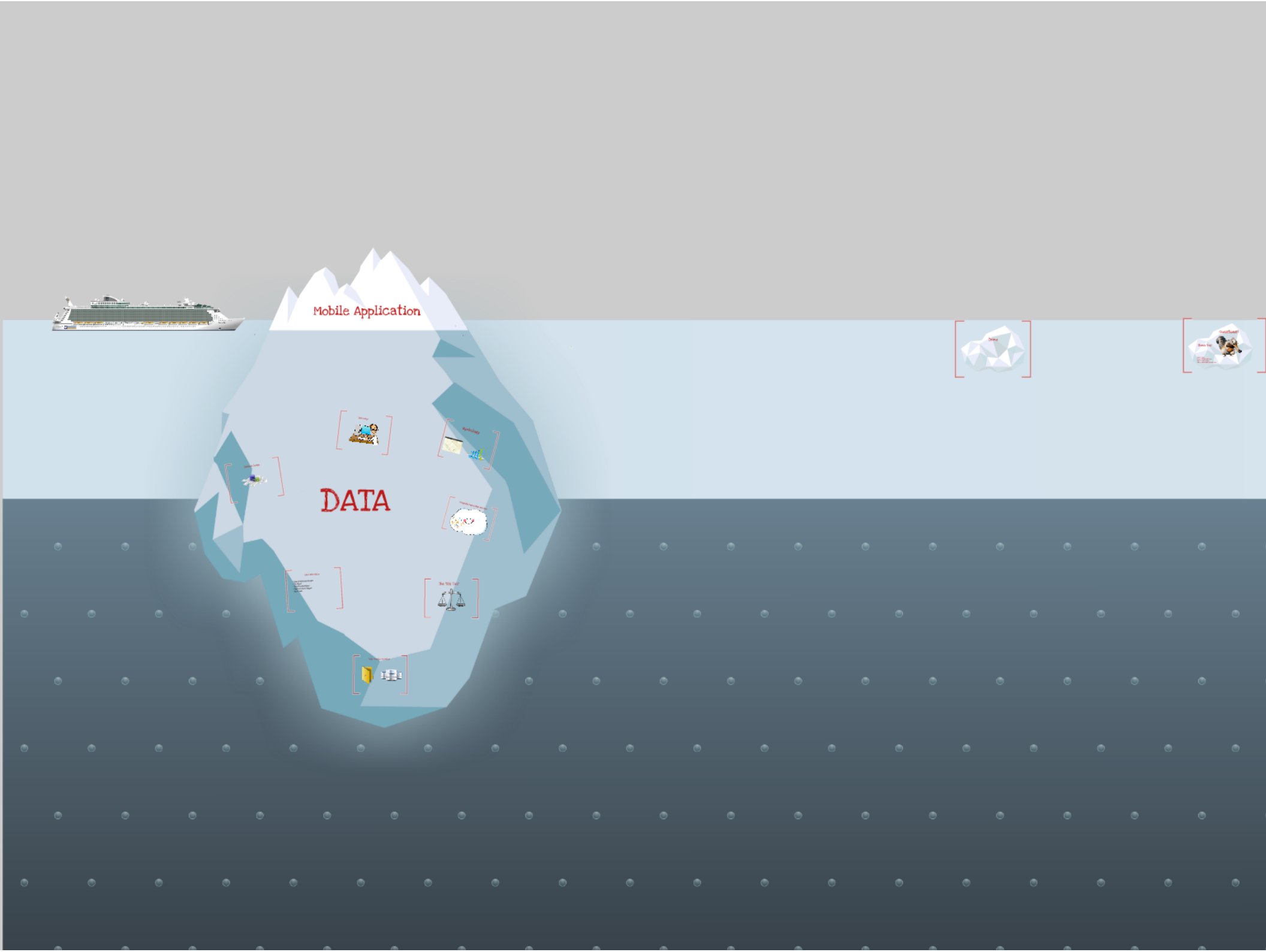

Mobile Application
DATA

northeast arc
users group

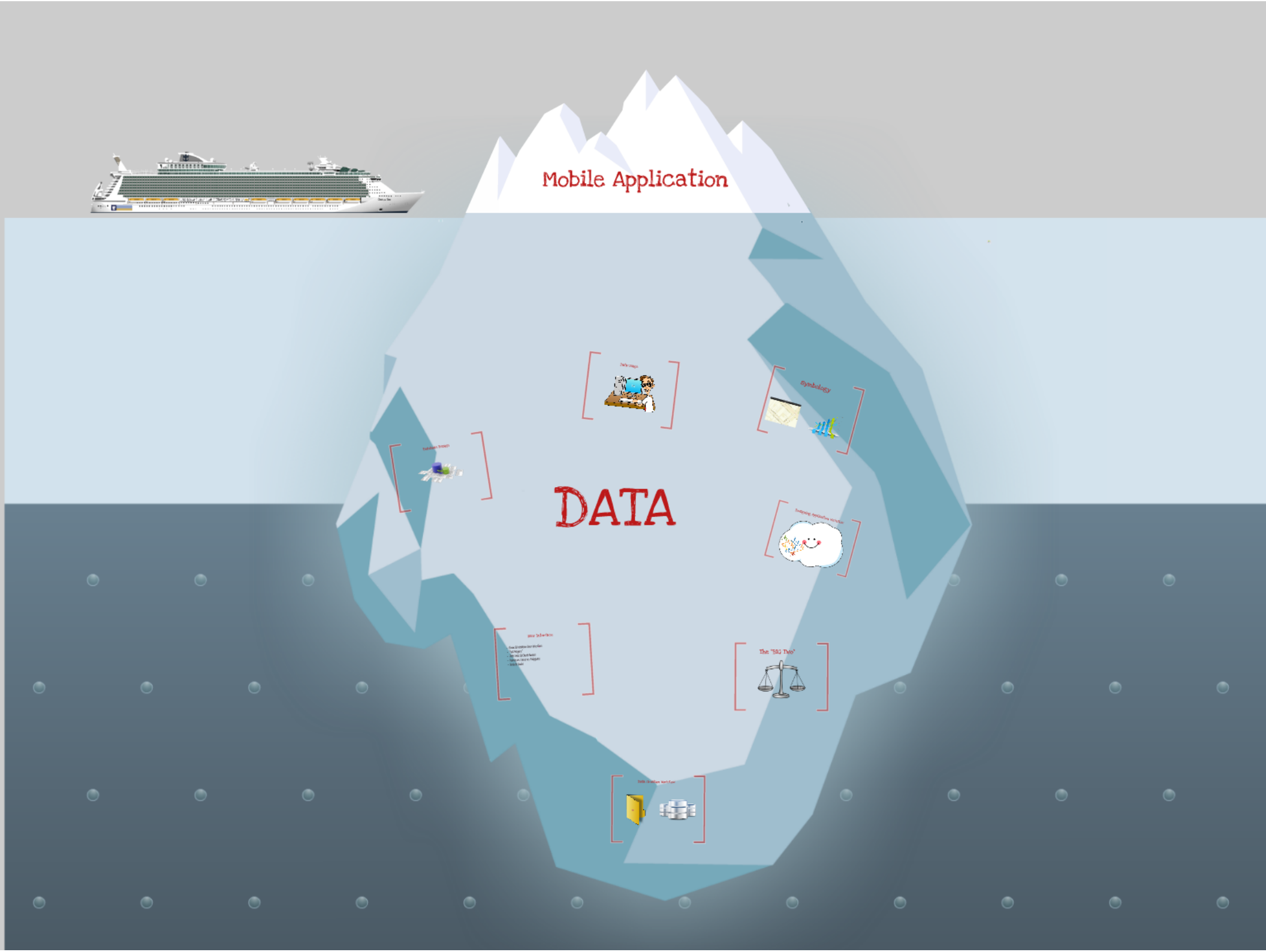
NEARC
users helping users

# Spring Meeting
# Tuesday May 14, 2013

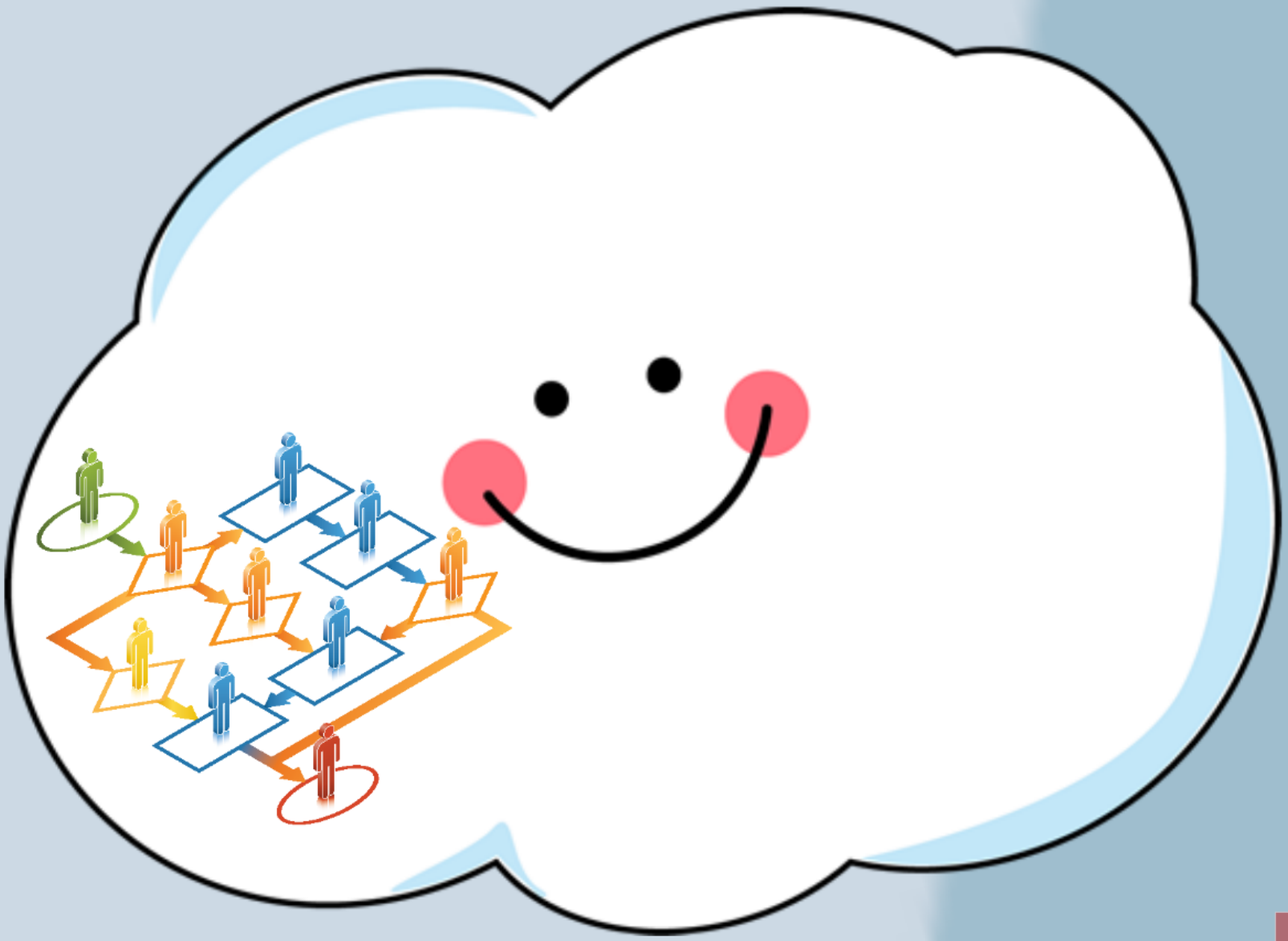
## Getting Your Data Ready For Use In Mobile Applications

James Klugh
Esri Certified Enterprise Associate
Darren Mackiewicz, GISP

# Mobile Application


Mobile Application
DATA
Symbology
The "BIG Two"

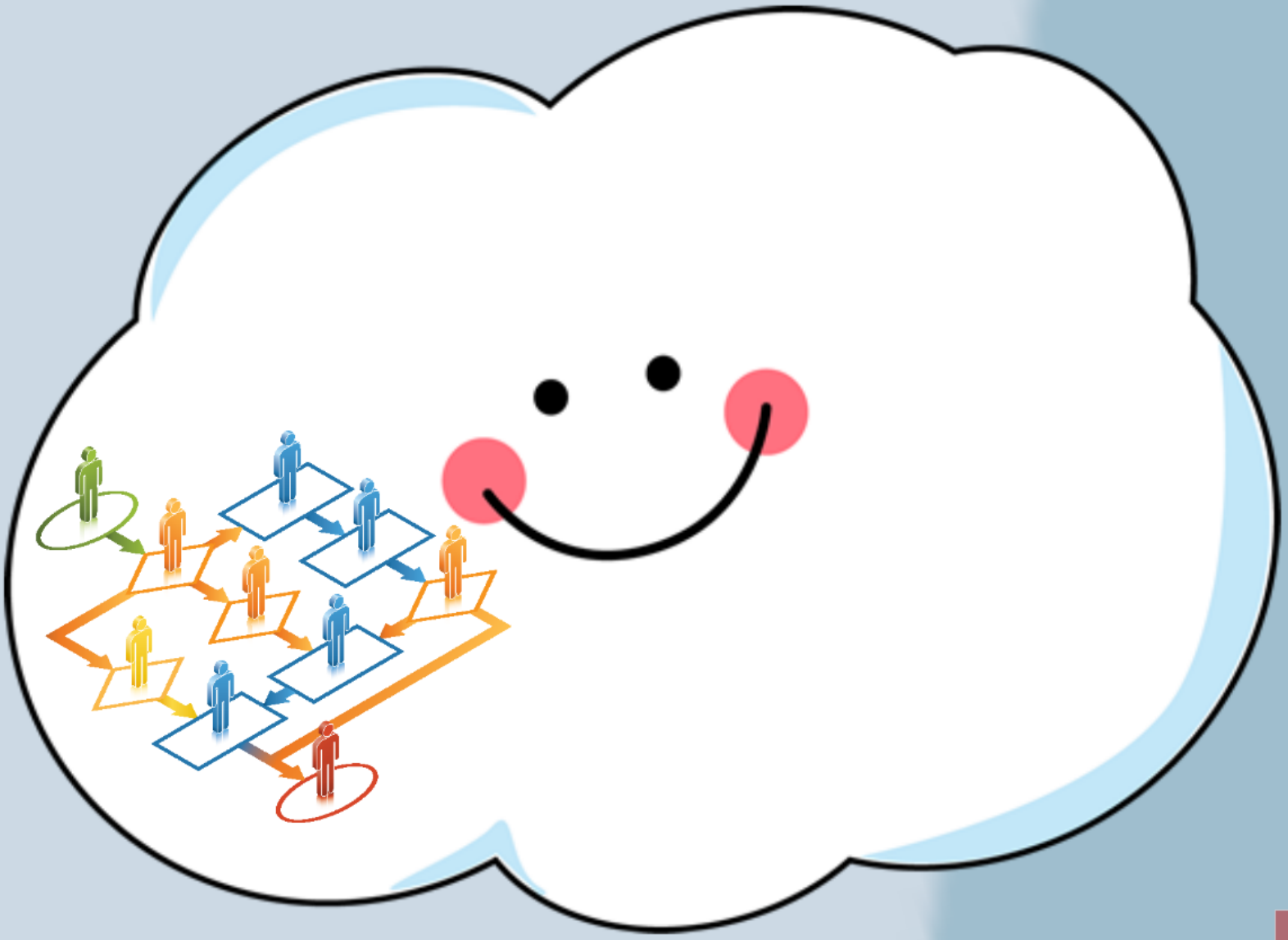
# Designing Application Workflow



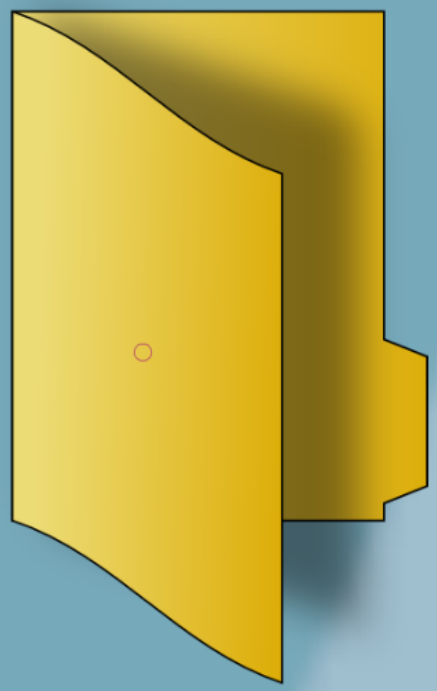
Ask Several Questions:

- What need does our application fill?
- Who is going to be using it?
- Who is going to be consuming the data?
- Is the data going to be an end product or an intermediate step?
- Does it need to integrate with other things?
- What will our application be consumed on?

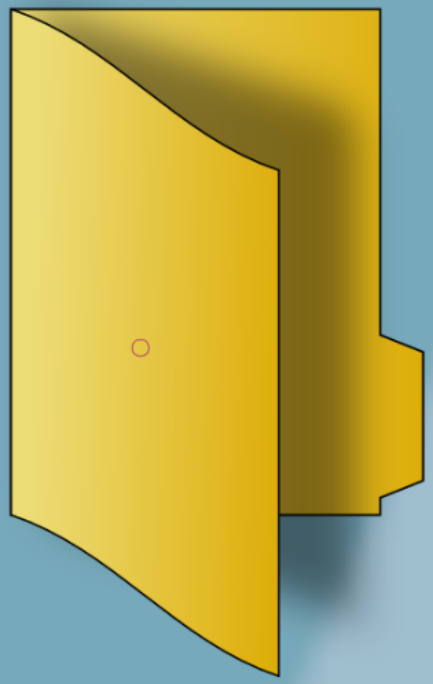
# Designing Application Workflow



# Data Creation Workflow



# Data Creation Workflow



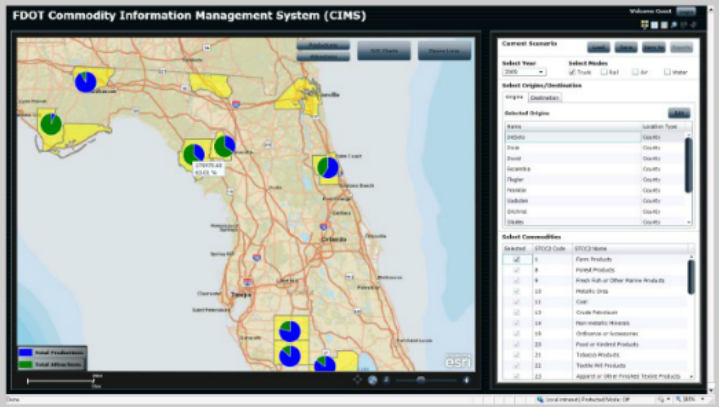
# Data usage

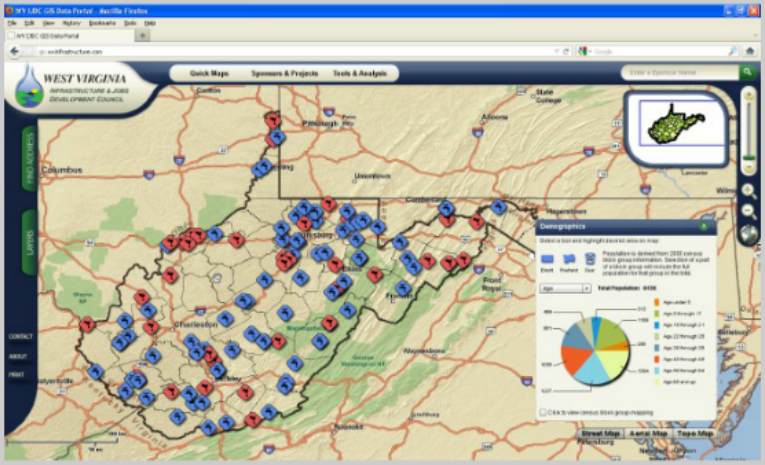
- Images

# Data usage

# Integration

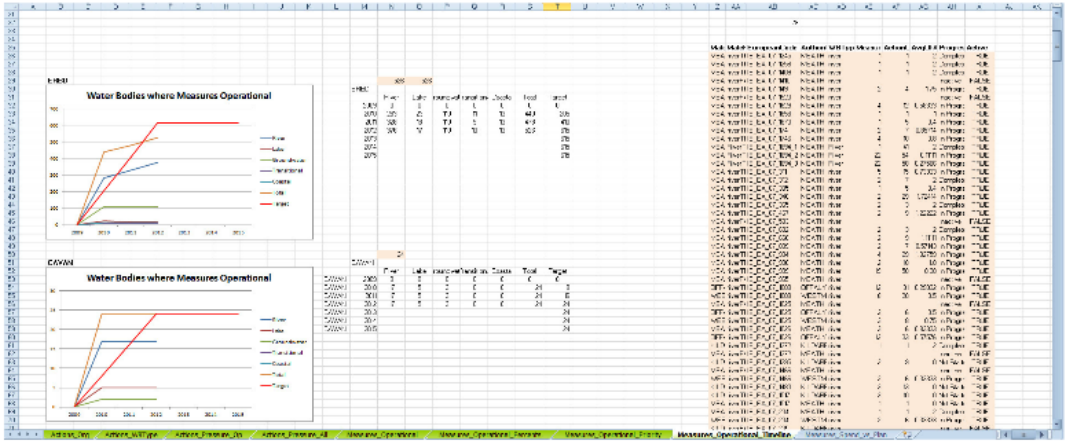
- GIS
- Web/Dashboard
- MGMT Systems

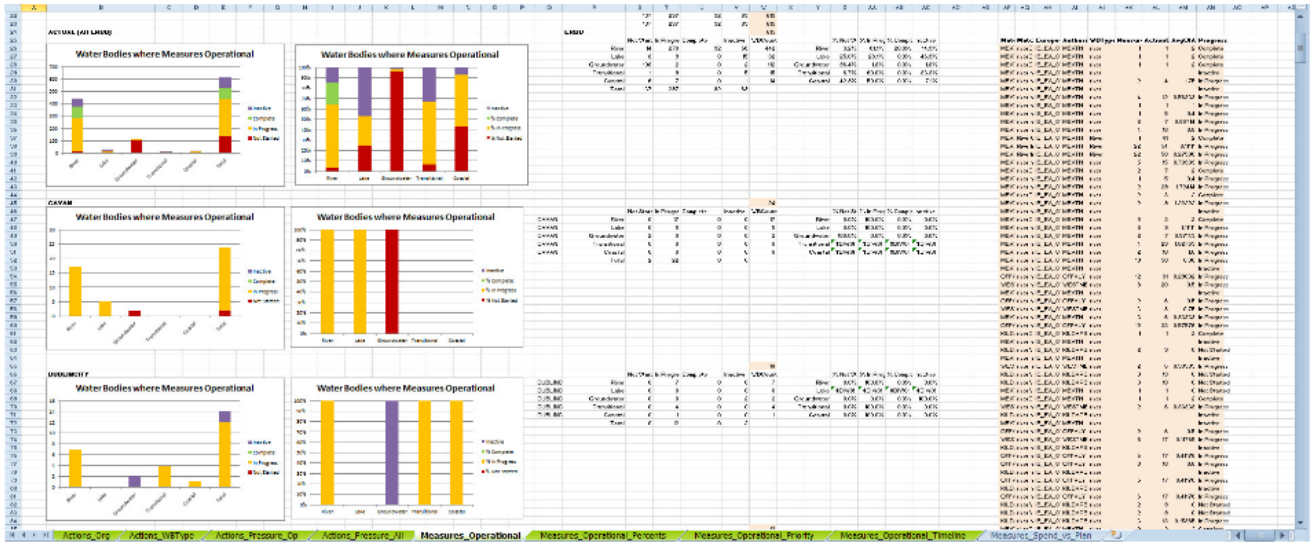


# Data usage

# • Reports


Water Bodies where Measures Operational
Water Bodies where Measures Operational


Water Bodies where Measures Operational
Water Bodies where Measures Operational
Water Bodies where Measures Operational
Water Bodies where Measures Operational
Water Bodies where Measures Operational
Water Bodies where Measures Operational

# Database Design

# Spatial vs. Non-Spatial Data Types

| gFrameCond | Steps | Cone | Riser | Shelf | Channel | Inflow |
|---|---|---|---|---|---|---|
| l> | Servicable | <Null> | <Null> | <Null> | <Null> | <Null> |
| Loose | <Null> | <Null> | Serviceable | <Null> | <Null> | <Null> |
| Loose | <Null> | <Null> | Serviceable | <Null> | <Null> | None |
| Displaced | Unsafe | <Null> | Broken | Dirty | Sulfided | Debris on Si |
| Loose | Missing | Leaking/Ba | Serviceable | Dirty | Bad Pipe Jo | <Null> |
| Loose | Corroded | Leaking/Ba | Serviceable | Broken | Obstructed | Debris on Si |
| lissing Grout | Corroded | Misaligned | Broken | Sulfided | Bad Pipe Jo | <Null> |
| Loose | Servicable | Sulfided | Serviceable | Serviceable | Serviceable | <Null> |
| lissing Grout | Missing | Sulfided | Leaking/Ba | Bad Base J | Bad Pipe Jo | <Null> |
| l> | <Null> | <Null> | Broken | <Null> | <Null> | <Null> |
| l> | <Null> | <Null> | <Null> | <Null> | <Null> | <Null> |
| l> | <Null> | <Null> | <Null> | <Null> | <Null> | <Null> |
| Loose | <Null> | <Null> | Serviceable | <Null> | <Null> | <Null> |
| lissing Grout | Missing | <Null> | Sulfided | Dirty | <Null> | <Null> |
| lissing Grout | Missing | Misaligned | Sulfided | Sulfided | Poor Struct | Debris on Si |
| lissing Grout | Corroded | Sulfided | Serviceable | Sulfided | Silt | None |
| lissing Grout | Servicable | Misaligned | Misaligned | Dirty | Serviceable | None |
| Loose | <Null> | <Null> | Serviceable | <Null> | <Null> | <Null> |
| ds Lowering | Corroded | Leaking/Ba | Leaking/Ba | Bad Base J | Poor Struct | Debris on Si |
| eds Raising | Missing | Misaligned | Sulfided | Sulfided | Bad Pipe Jo | Debris on Si |
| Displaced | <Null> | <Null> | Broken | <Null> | <Null> | <Null> |
| ds Lowering | <Null> | <Null> | Sulfided | <Null> | <Null> | <Null> |
| Displaced | Missing | Misaligned | Sulfided | Broken | Bad Pipe Jo | <Null> |
| l> | Missing | Serviceable | <Null> | Dirty | Obstructed | <Null> |
| Displaced | Corroded | Leaking/Ba | Sulfided | Broken | Poor Struct | <Null> |
| l> | <Null> | <Null> | <Null> | <Null> | <Null> | <Null> |

# Database Design

# Domains

Coded Values:

| Code | Description |
|---|---|
| Mon | Monday |
| Tues | Tuesday |
| Wed | Wednesday |
| Thurs | Thursday |

Coded Values:

| Code | Description |
|---|---|
| 0 | Top |
| 1 | Center |
| 2 | Baseline |
| 3 | Bottom |
| | |

# Database Design

# Field Aliases

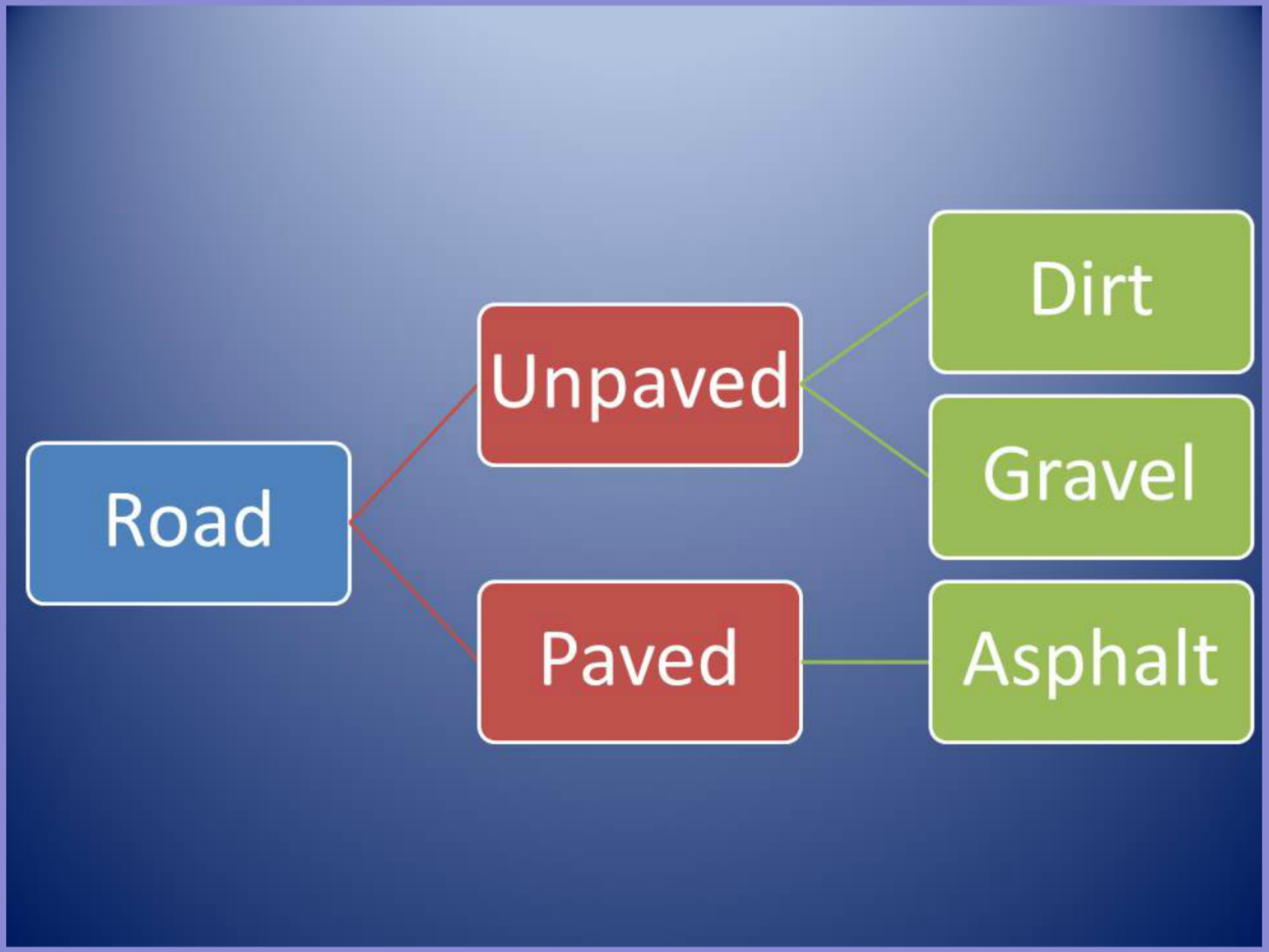
**Configure Attributes**

Check the fields you want to display and edit. Select a field to change its alias, ord

| Display | Edit | Field Name | Field Alias |
|---|---|---|---|
| ☑ | ☑ | {pocname} | Contact Name |
| ☐ | ☑ | {pocemail} | Contact Email |
| ☐ | ☑ | {pocphone} | Contact Phone |
| ☑ | ☐ | {opendate} | Open Date |

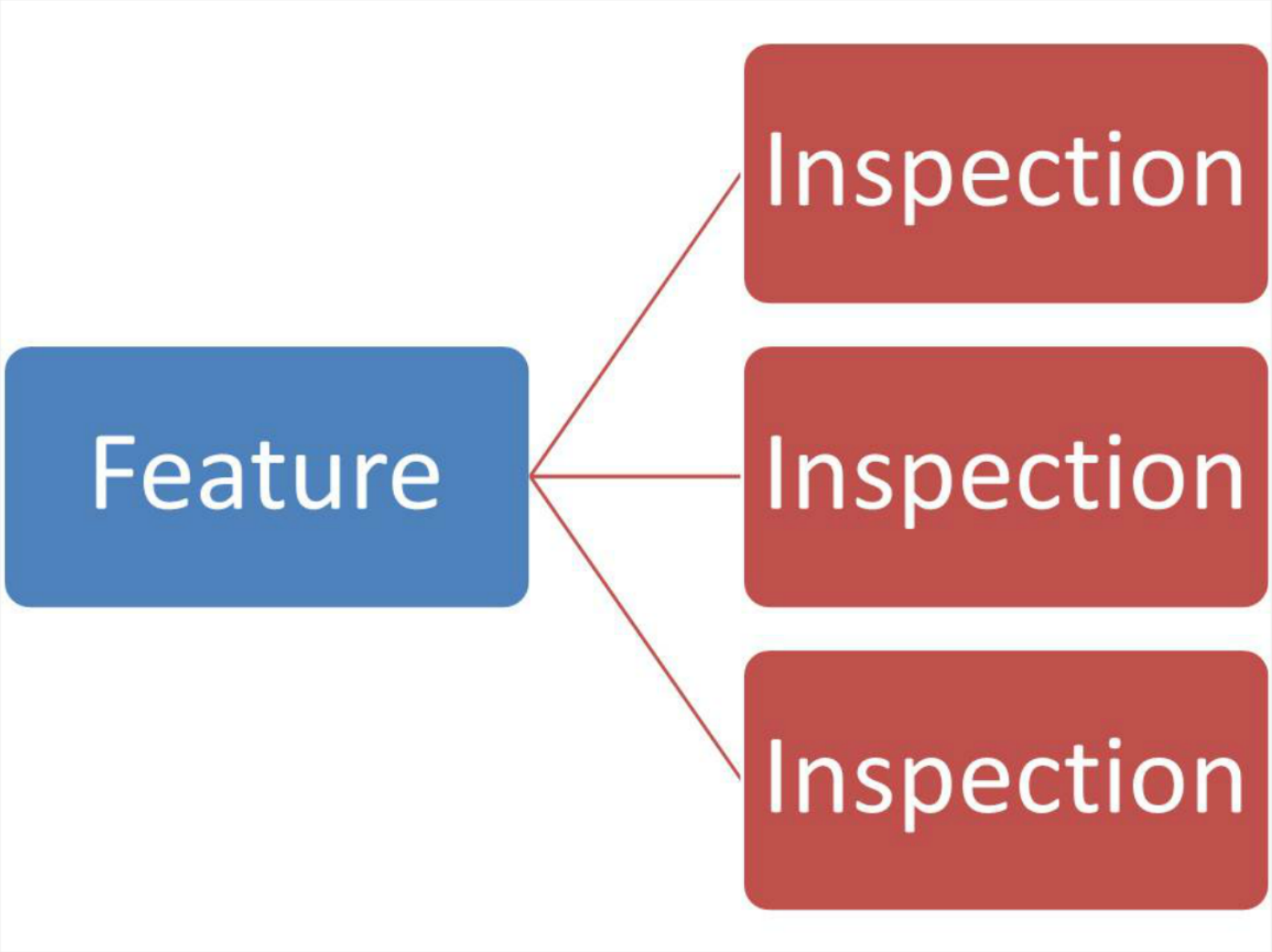
# Database Design

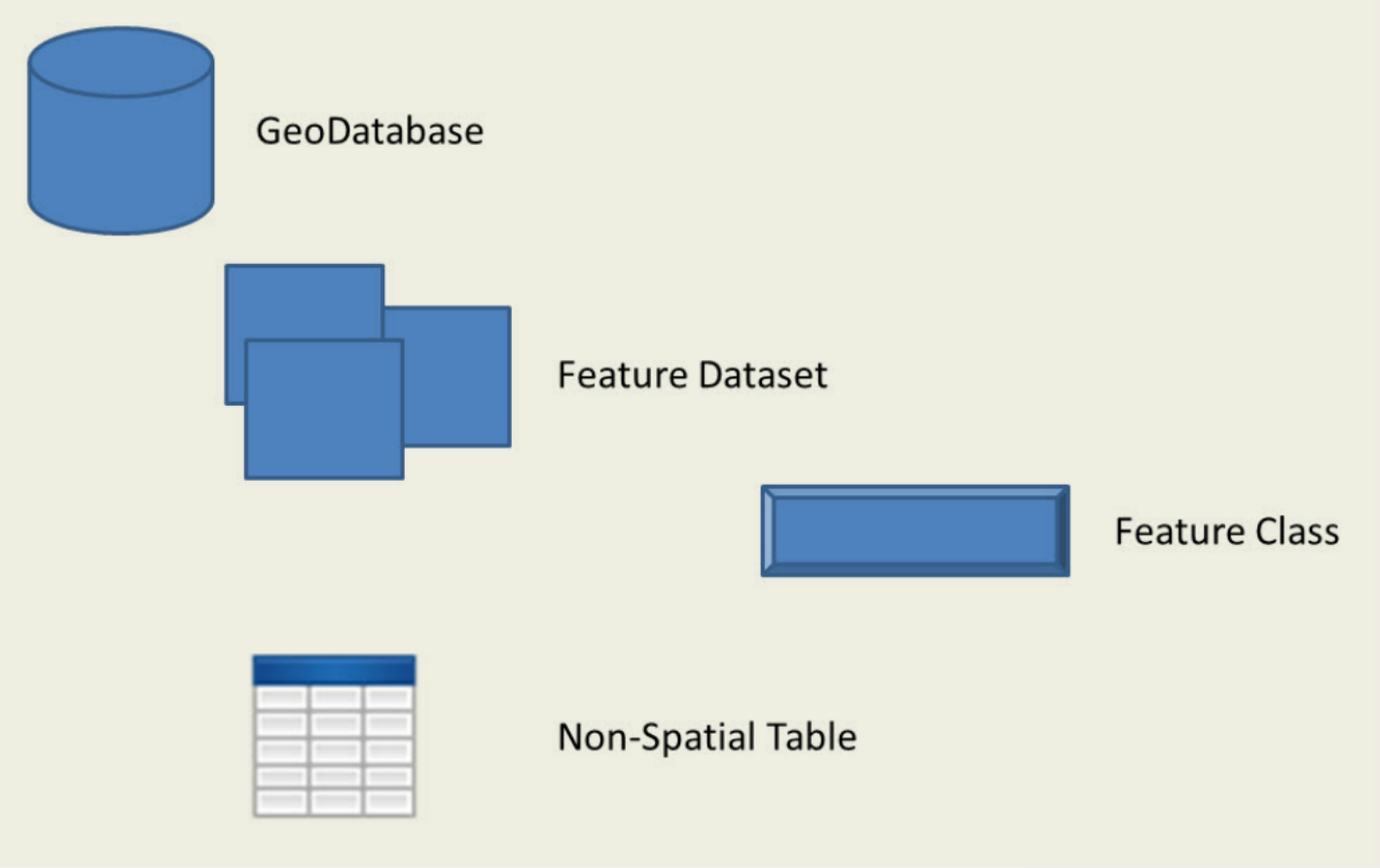
# Subtypes

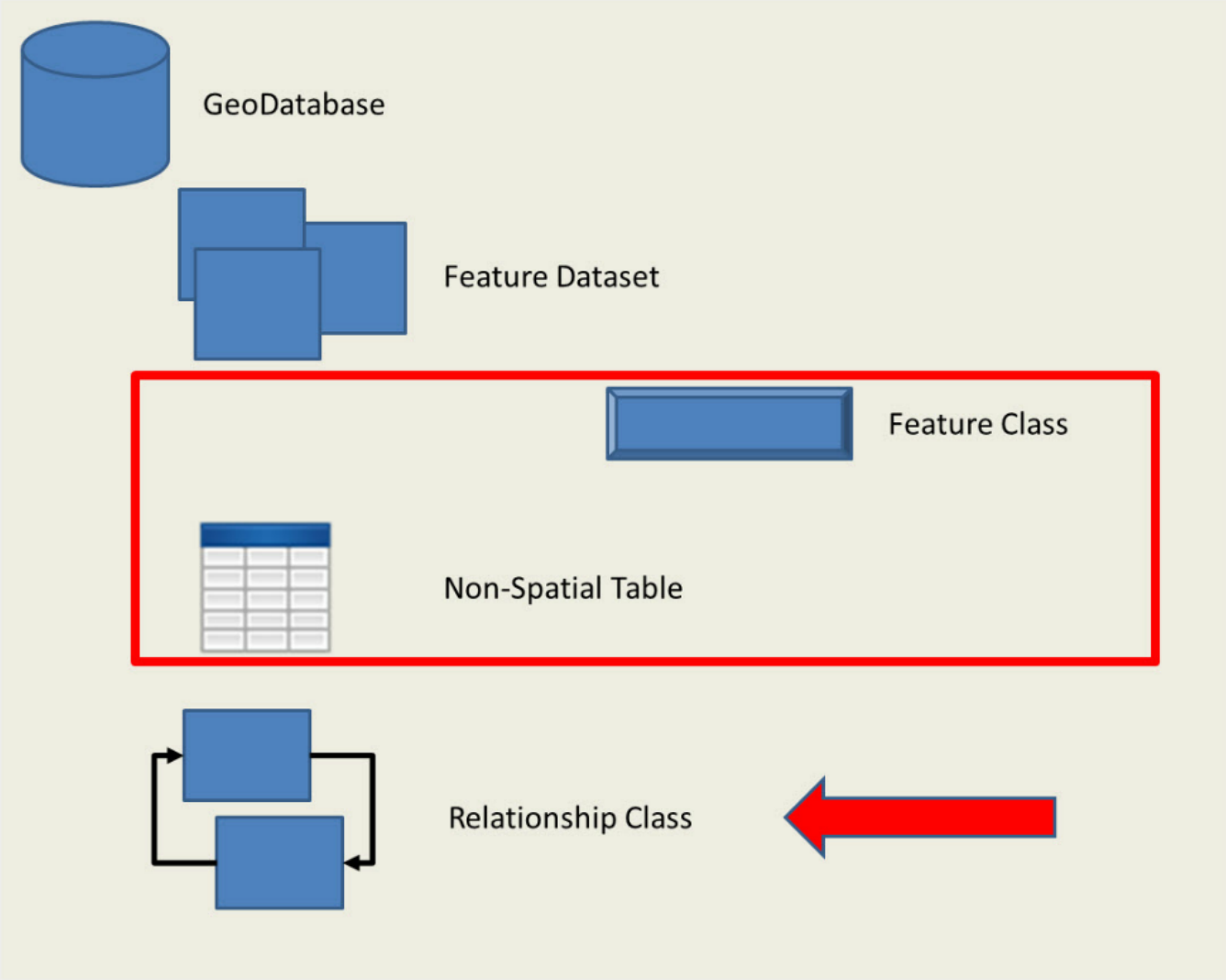


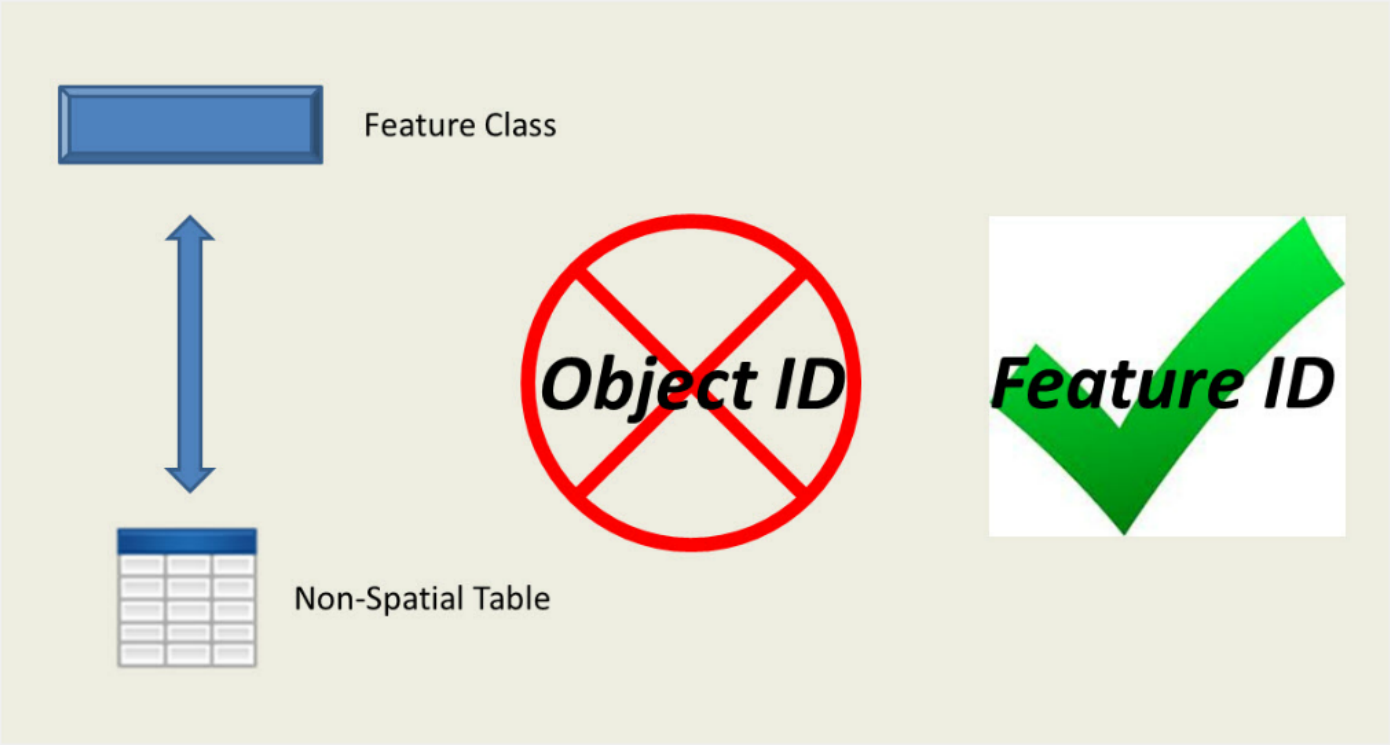
# Database Design

# Relationship Classes




GeoDatabase
Feature Dataset
Feature Class
Non-Spatial Table


GeoDatabase
Feature Dataset
Feature Class
Non-Spatial Table
Relationship Class

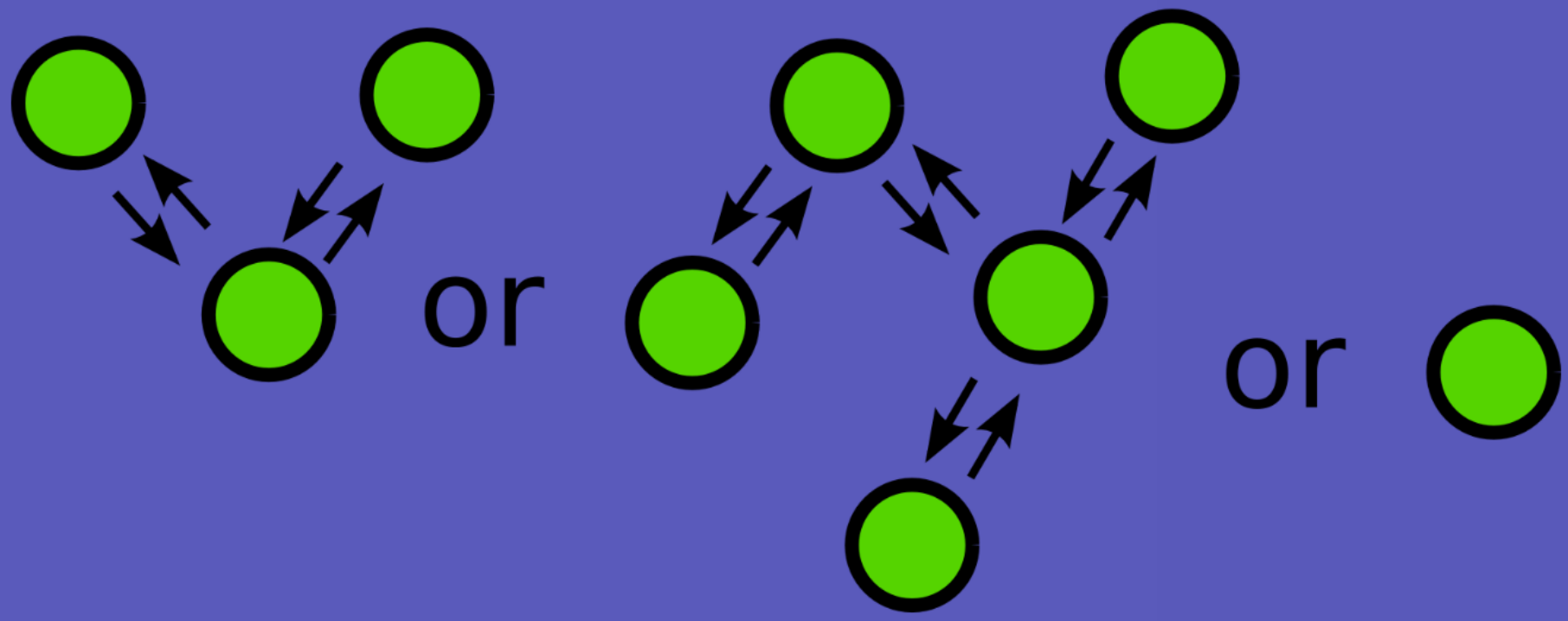

Feature Class
Object ID
Feature ID
Non-Spatial Table

# Database Design

# Attachments

# Database Design

# Versioning

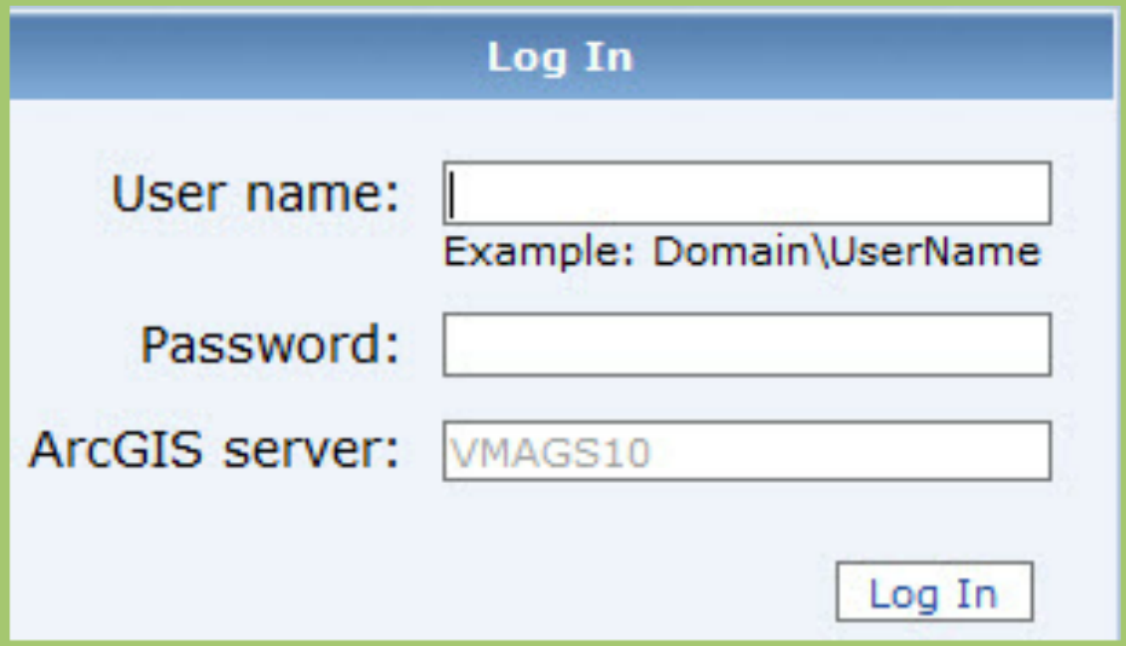


# Database Design

# Security

# title?

# Title?


Log In
User name:
Example: Domain\UserName
Password:
ArcGIS server:
VMAGS10
Log In

# Database Design

# Data Stores

# Database Design

# The "BIG Two"

# Usability

- Low Tolerance for "traditional" users

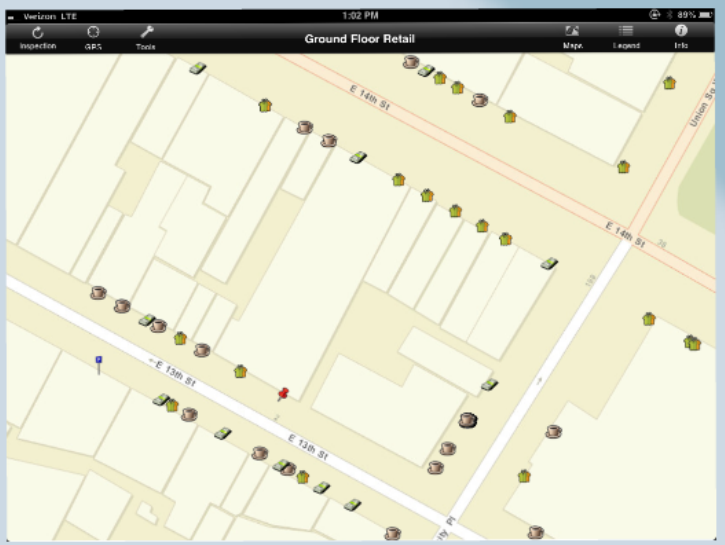
# The "BIG Two"

# Performance

- Projection
- SDE(Edit) vs File (View)
- Tiled vs Dynamic
- Web vs Local Data (10.2)

# The "BIG Two"

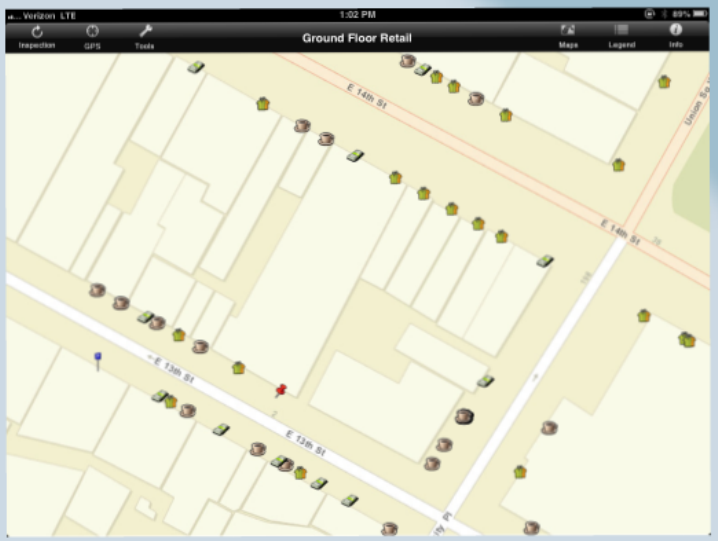
# Symbology


Verizon LTE
1:02 PM
89%
Inspection
GPS
Tools
Ground Floor Retail
Maps
Legend
Info
E 14th St
E 14th St
E 13th St
E 13th St

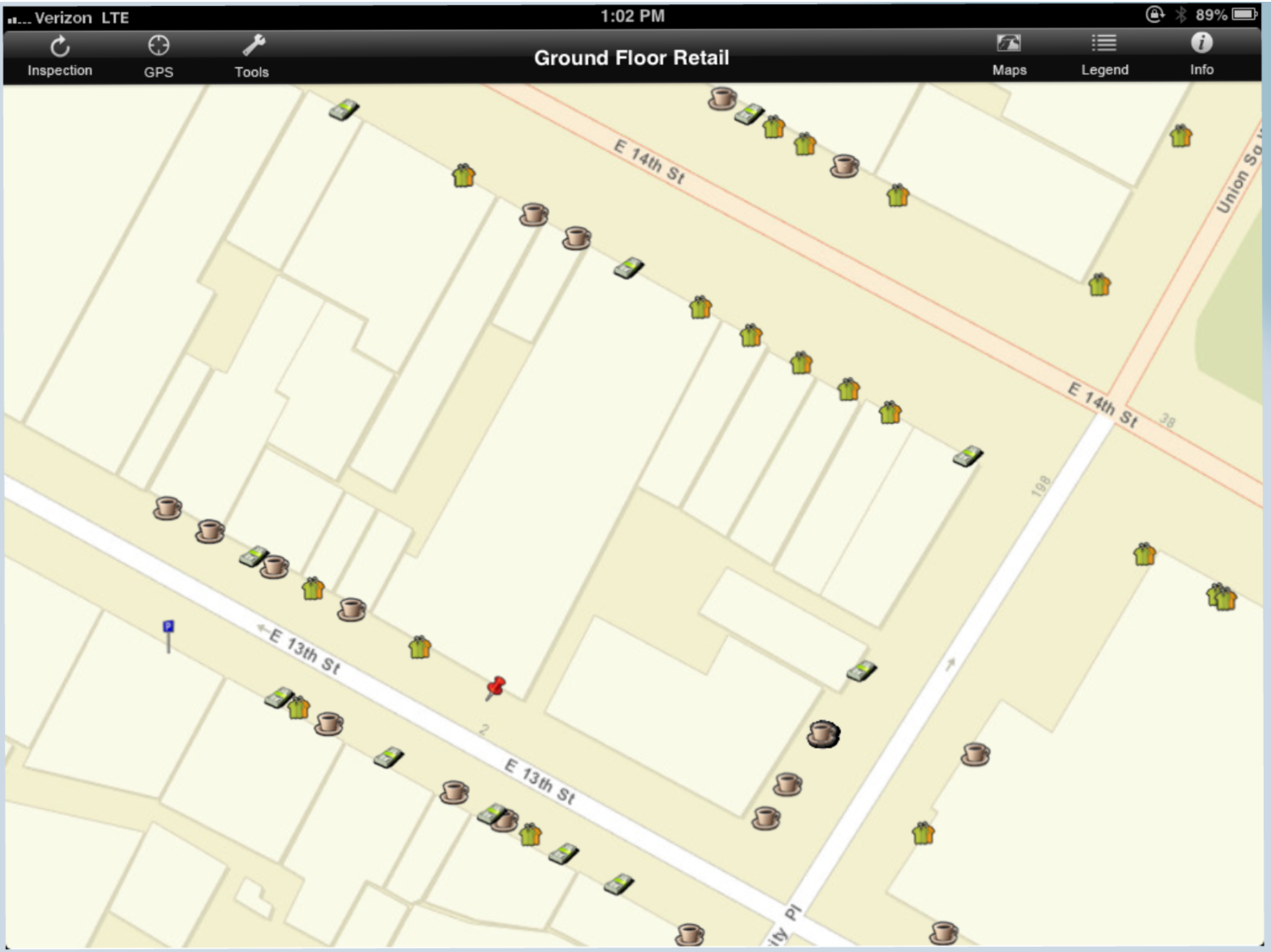
200M
150M
100M
50M

# Performance

# Symbology


Verizon LTE
1:02 PM
Ground Floor Retail
Inspection
GPS
Tools
Maps
Legend
Info
E 14th St
E 13th St

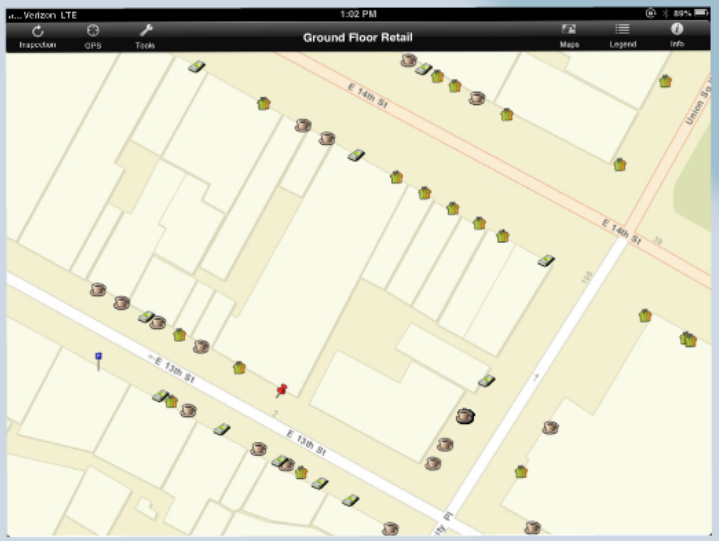
200M
150M
100M
50M


Verizon LTE
1:02 PM
89%
Inspection
GPS
Tools
Ground Floor Retail
Maps
Legend
Info
E 14th St
E 14th St
E 13th St
E 13th St
198
38
2
1

# Feature Service Limitations

- Labeling
- Renderers

# Symbology


Verizon LTE
1:02 PM
Inspection
GPS
Tools
Ground Floor Retail
Maps
Legend
Info
E 14th St
E 13th St

200M
150M
100M
50M

# User Interface

- Clean & Intuitive User Interface
- "Fat Fingers"
- Pick Lists & Check Boxes
- Points vs. Lines vs. Polygons
- Data & Tools

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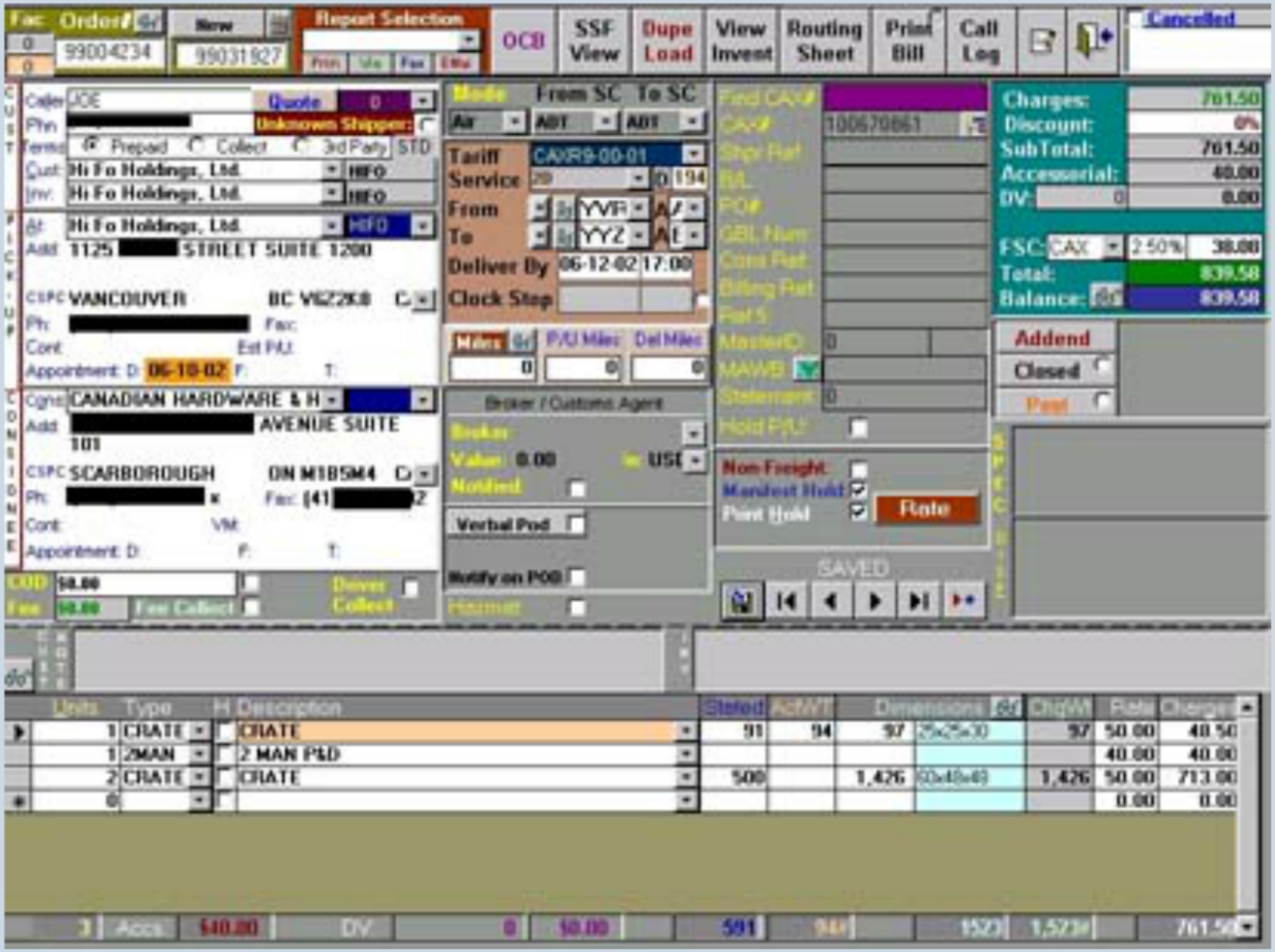
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Add: [redacted] AVENUE SUITE 101
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Appointment: D:
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Fee $0.00
Fee Collect
Driver Collect
Mode
From SC
To SC
Air
ADT
Tariff CAXR9-00-01
Service
From YVR
To YYZ
Deliver By 06-12-02 17:00
Clock Stop
Miles
P/U Miles
Del Miles
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Value 0.00
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Shpr Ref
B/L
PO#
GBL Num
Cons Ref
Billing Ref
Ref 5
MasterID
MAWB
Statement
Hold P/U
Non-Freight
Manifest Hold
Print Hold
Rate
SAVED
Charges: 761.50
Discount: 0%
SubTotal: 761.50
Accessorial: 40.00
DV: 0.00
FSC: CAX 2.50% 38.00
Total: 839.58
Balance: 839.58
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Description
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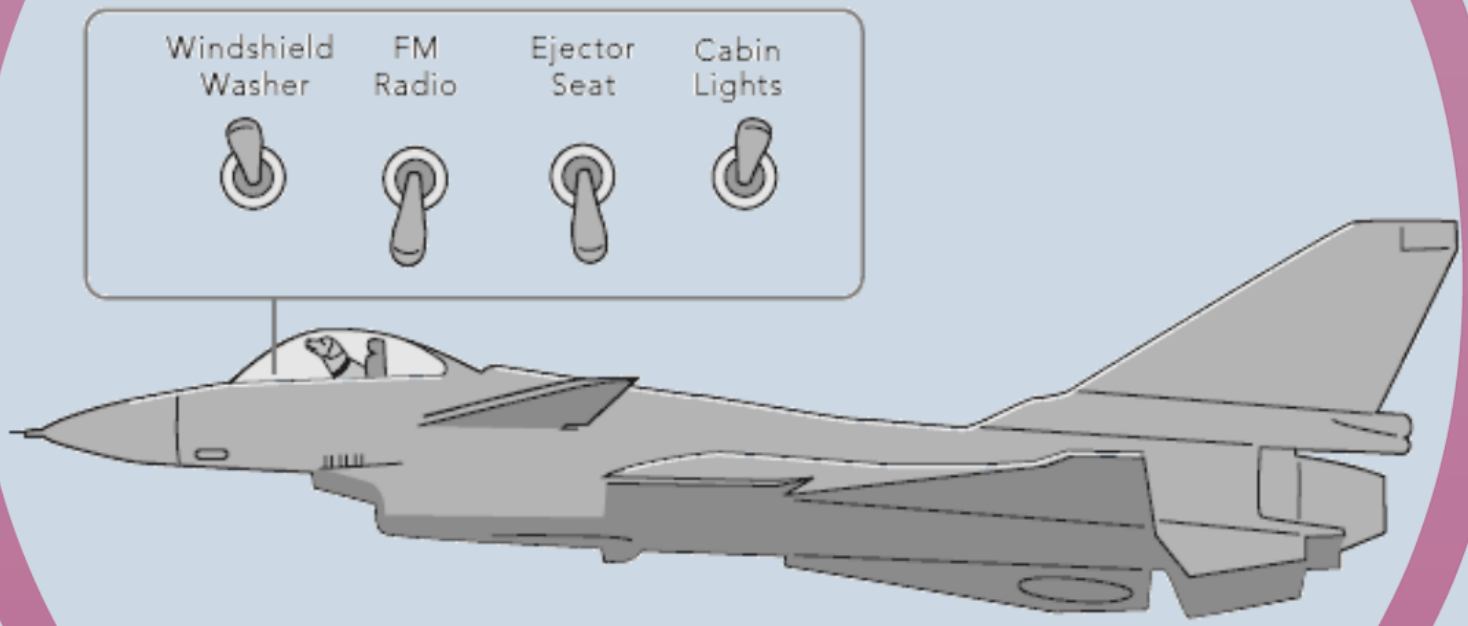
3 Accs. $40.00 DV 0 $0.00 591 94# 1523 1,523# 761.50


Windshield Washer
FM Radio
Ejector Seat
Cabin Lights

# User Interface

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- "Fat Fingers"
- Pick Lists & Check Boxes
- Points vs. Lines vs. Polygons
- Data & Tools

# User Interface

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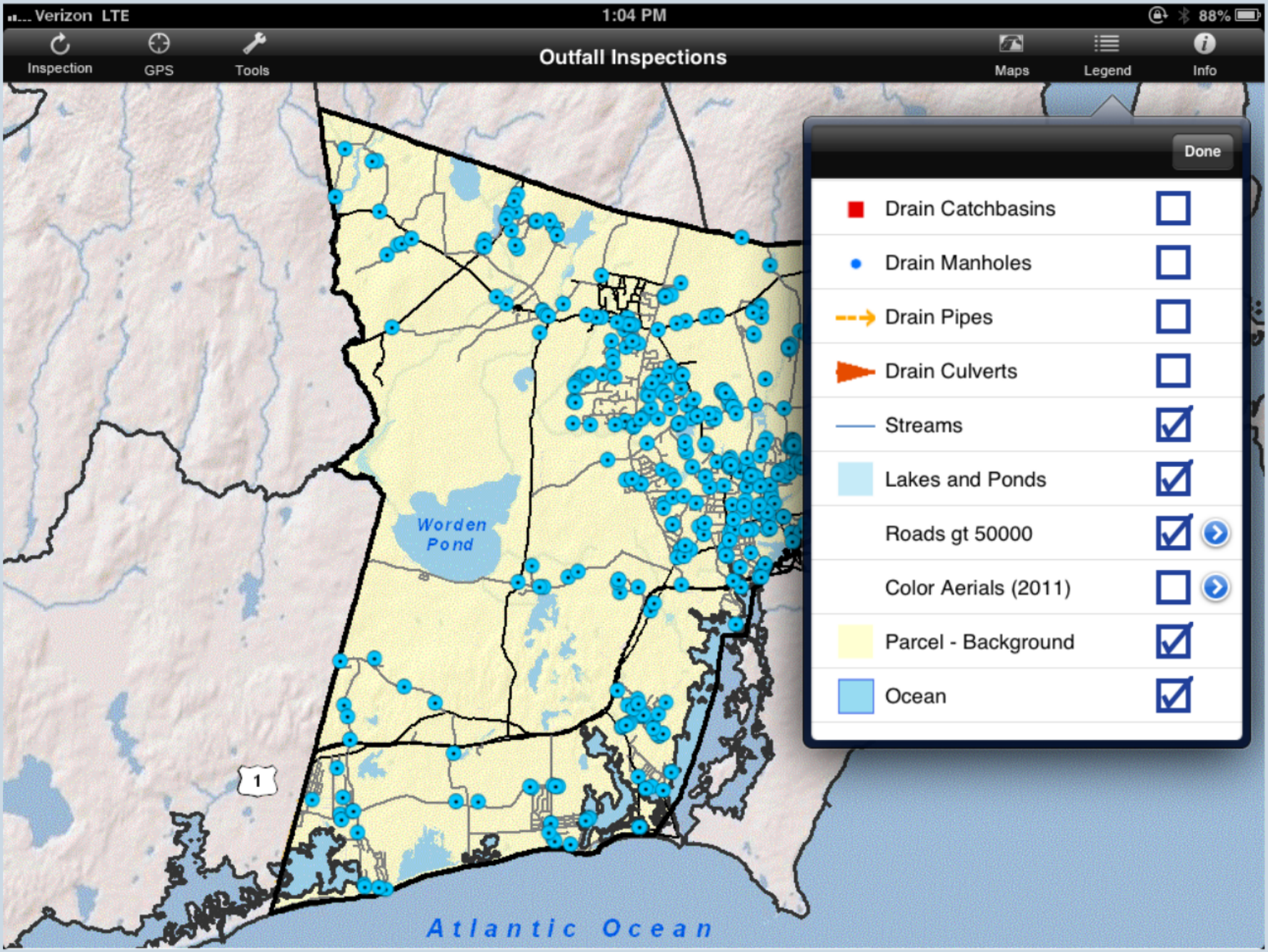
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Outfall Inspections
Maps
Legend
Info
Done
Drain Catchbasins
Drain Manholes
Drain Pipes
Drain Culverts
Streams
Lakes and Ponds
Roads gt 50000
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Parcel - Background
Ocean
Worden Pond
1
Atlantic Ocean

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GPS
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Outfall Inspections
Maps
Legend
Info
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RECEIVING WB
FRESHWATER WETLAND
PIPE DIAMETER
24
CDM Smith
cdmsmith.com
BOX
CIRCULAR
ELIPTICAL
TRAPEZOID
PARABOLIC
OTHER
WATER + ENVIRONMENT + TRANSPORTATION + ENERGY + FACILITI

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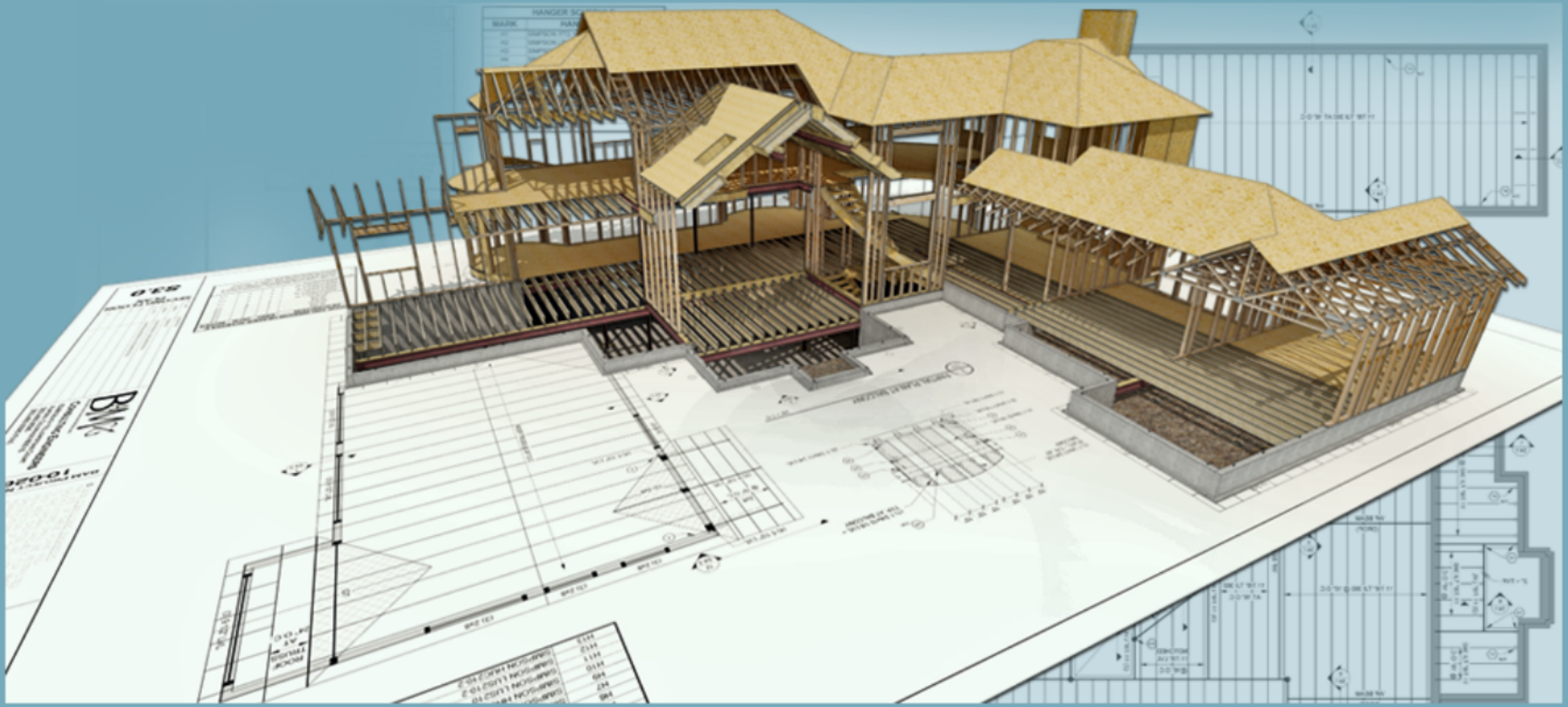
- Points vs. Lines vs. Polygons
- Data & Tools



# User Interface

- Clean & Intuitive User Interface
- "Fat Fingers"
- Pick Lists & Check Boxes
- Points vs. Lines vs. Polygons
- Data & Tools

# Demo

# Questions?

## Thank You!

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