



Esri International User Conference | San Diego, CA
Technical Workshops | July 2011

Poll Maps: Concept, Planning, Design and Implementation

Alex Yule, Jim Herries, Mamata Akella, Kenny Ling

Esri Mapping Center Team

mappingcenter.esri.com



The screenshot shows the Esri Mapping Center website. At the top, there is a navigation bar with links: Home, Blog, Ask A Cartographer, Maps, ArcGIS Resources, and Other Resources. A yellow arrow points to the 'Other Resources' link. The main content area features a 'Welcome to Mapping Center' section with a paragraph about helping users make great maps. Below this is a 'Most Recent Blog Feeds' section with two entries: 'Designing Operational Overlays for the ArcMap and ArcGIS Online Basemaps' and 'Announcing the New Ocean Basemap'. The right sidebar contains sections for 'Mapping Center Web Site' with links to About, Team, R&D, Getting Started, and Site Map; 'Mapping Center Blog' with links to About the Blog, Terms of Use, and Submit an Entry; and 'Recent Tweets' with a Twitter logo and a 'Join the conversation' link.

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esri Mapping Center

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Home | Blog | Ask A Cartographer | Maps | ArcGIS Resources | Other Resources

Welcome to Mapping Center

Mapping Center is dedicated to helping you make great maps with ArcGIS. We do this by introducing you to the same concepts and techniques that professional cartographers use. ***Our goal is our users' demonstrated success in cartographic information design.***

Most Recent Blog Feeds

Designing Operational Overlays for the ArcMap and ArcGIS Online Basemaps

When creating maps using the basemaps that are available in ArcMap or from ArcGIS Online, best practice is to add the basemap to your ArcMap session (if it is a map service that you can open in ArcMap). Then you can design your operational data, which will overlay the basemap, so that it complements the basemap and so that the basemap appears to support the operational data. You can check the results of the map service you create in a Web map viewer. If you need to make changes once you review the results, you can simply edit the ArcMap document until you get the final product you want....(read more)

Announcing the New Ocean Basemap

The Ocean Basemap (Ocean_Basemap) map service was published recently on ArcGIS Online (services.arcgisonline.com, server.arcgisonline.com). This global map shows the sea floor of

Mapping Center Web Site

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Mapping Center Blog

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Recent Tweets

twitter Join the conversation

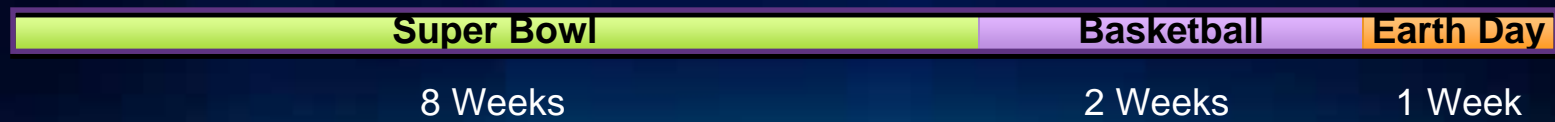
Poll Maps: Intro

Jim Herries



The Plan

- Intro
- Super Bowl FanMap
- Basketball FanMap
- Earth Day PollMap
- Configuring the PollMap Template



Reviews

“This [infographic] created by the mapping team at [ESRI](#), is pretty great...” Cliff Kuang, [Co.Design](#)

“OK, officially obsessed with this map: <http://bit.ly/ginFke>; reminds me of the Dooley/Muehlenhaus UFO sighting symbolization from NACIS 2010”

[@rothzilla](#) Robert Roth

“Thank you for creating an online map that has some fun in it.”

“This is really neat technology. Is this available for commercial use? I could see many applications for business.” Bill Warneke, Malnove Holding Company

“Will be a very nice lead-in for students and the general public to start thinking about the power of maps and GIS, even after the game is over (and the Cheese Floweth).”

“As a promotional device the fan map is a great idea. Strategically, would that they had launched it a little earlier.” Paul Pfeffer, YourPublicMedia.org



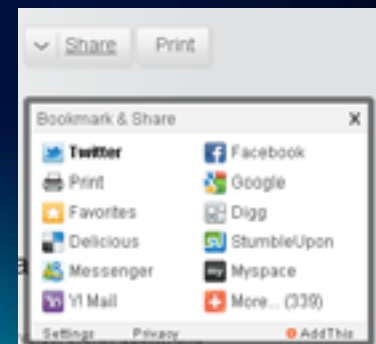
Hallway Conversations

- How do people represent their opinions?
- Often opinions are represented on the map at a scale and aggregation level convenient to the database
- Can the map itself encourage participation through better representation?



The FanMap/PollMap Project

- Long term goal: a template that allows people to put their opinions on the map
- Short term goal: build something for a specific event
- What kind of map and application would encourage people to vote on a topic?
- Can it be something they would pass along to others?



Keeping it Simple

- simple
- compelling content
- ease of use
- few moving parts
- deadlines
- realistic scope
- software options
- thrash the requirements
- hardware options
- deliverables

Stated Objectives

- Limited time (schedule driven)
- Find the breaking point of the servers, and adjust
- Full cartographic freedom – no holds barred.

FanMap: Super Bowl Edition

Alex Yule, Mamata Akella



Building a Team



Photo credit: americanistadechiapas @ flickr

Building a Team

- **Customer (Charlie Frye)**
- **Lead Developer (Alex Yule)**
- **Project Manager/Data Guru (Jim Herries)**
- **Cartographer/Designer (Mamata Akella)**
- **Sysadmin (Kenny Ling)**
- **Friends for testing, UI advice, moral support (Mapping Center Team & Co.)**

(USA) Superbowl App

Features

- Reporting on Superbowl-related spending ^{per hour} over the US
 - Food
 - Electronics
 - Alcohol

- VotI by Zip (w/geolocation)

- Survey

- Who's gonna/you want to win
- Other q's (Sex, beer, party/bar/alone)
- cookie
- flag planting

- Analysis

- clusters
- recalculate at intervals

* "Representing 92374 for Pittsburgh, claim yours!"

"I just claimed 92374 for Pittsburgh, we're up to 82%, claim yours now!"

- Twitter tracking

0 - red -
0 - blue

- Only show user's region

Map of fanbase per team

→ w/reporting

- Beer type by team

- TV size " "

- Sex

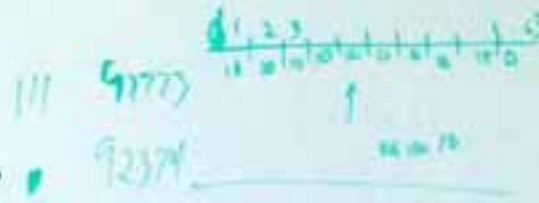
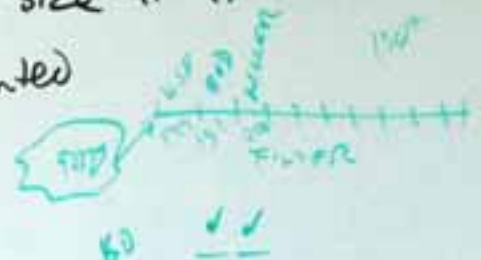
- to be counted

"Stand up and be counted"
• Steelers Nation
• Steelers Country
• Steelers Army

Who supports which team where?

- Women who drink keg beer with by TV's like team X
- Tapstry segments (GP)

- Most contested zip
- Upsets (super championship - no championship)
- Top 10 zip



Super Bowl FanMap: Conceptual Planning

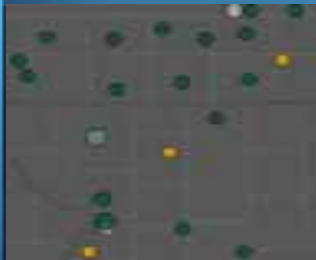
- **Audience: General Public (sports fans)**
- **Functionality:**
 - **Vote submission**
 - **Vote display**
 - **Vote reporting**
 - **Geolocation**
- **Look and feel: Dark, minimalist slate basemap with slick UI**
- **Platform: Flex**
- **User load: Low with slight potential for virality**
- **Deployment target: Single rack server**

Super Bowl FanMap: Production



Super Bowl FanMap: Aesthetics

Mamata Akella

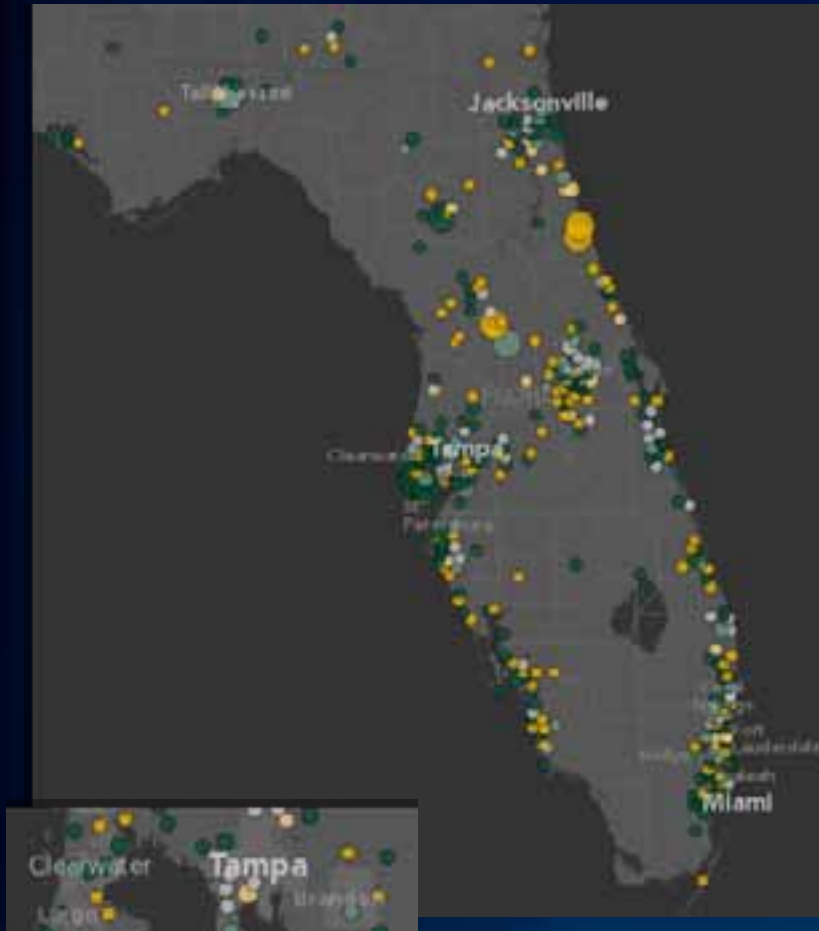


Super Bowl FanMap: Basemap Design



- **Less is more**
 - Features
 - Labels
 - Color
- **Supports better visualization of thematic content**

Super Bowl FanMap: “Map Sandwich”



- **How it works**

- The ‘basemap’ is split into two map services:
 - Reference (top)
 - Base (bottom)
- Combined with thematic content (middle)
 - Client-side Votes layer

Super Bowl FanMap: Special Effects

OBJECTID*	NAME*	PLACE KEY	CAPITAL	POPULATION	STATE	PCLASS	Shape*	FootballCity_YN
8200	Providence	0007351000	N	145841	PA	5	Point	No
822	Oakland	0000153000	N	367230	CA	7	Point	Yes
1156	Norwalk	0003750500	N	100209	CA	5	Point	No
25485	North Little Rock	0011900400	N	90468	AR	5	Point	No
22743	Norman	4000752000	N	90029	OK	5	Point	No
58627	Norfolk	0171957000	N	233430	VA	5	Point	No
58629	Newport News	0170060000	N	176122	VA	5	Point	No
80149	Newark	3401301000	N	268510	NJ	7	Point	No
81330	Newark	1000000670	N	27870	DE	5	Point	No
83668	New York	3600480000	N	1853774	NY	5	Point	No
32408	New Orleans	2207100000	N	478620	LA	7	Point	Yes
83076	New Haven	0600650000	N	174666	CT	5	Point	No
28451	Nashville	4703750000	N	511263	TN	7	Point	Yes
85219	Nashua	0301100200	N	81064	NH	7	Point	No
8250	Nampa	1600750200	N	91867	ID	7	Point	No
1333	Moreno Valley	0000548270	N	140832	CA	5	Point	No
86323	Montpelier	0002346000	N	7866	VT	7	Point	No
30048	Montgomery	0110101000	N	186363	AL	7	Point	No
2132	Modesto	0600940300	N	178009	CA	5	Point	No
34229	Mobile	0108750000	N	202581	AL	5	Point	No
7441	Missoula	3006350200	N	51264	MT	5	Point	No
8079	Missouri	2018483300	N	16938	MO	5	Point	No
14678	Minneapolis	2705343000	N	368785	MN	7	Point	Yes
64784	Minneapolis	27057901000	N	390503	MN	7	Point	No
34019	Miami	1200645000	N	365127	FL	7	Point	No
32405	Metairie	2205150115	N	116000	LA	5	Point	No



Participating city

Large city

Medium city

Small city

- Label hierarchy
 - Cities with participating teams highest

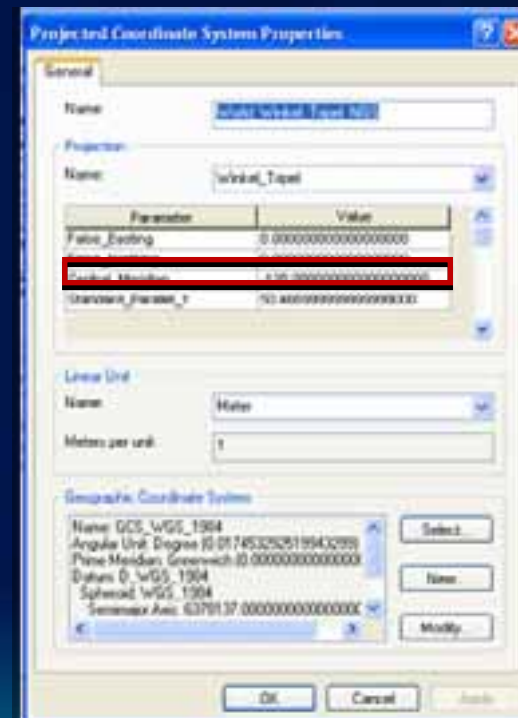


Super Bowl FanMap: Special Effects

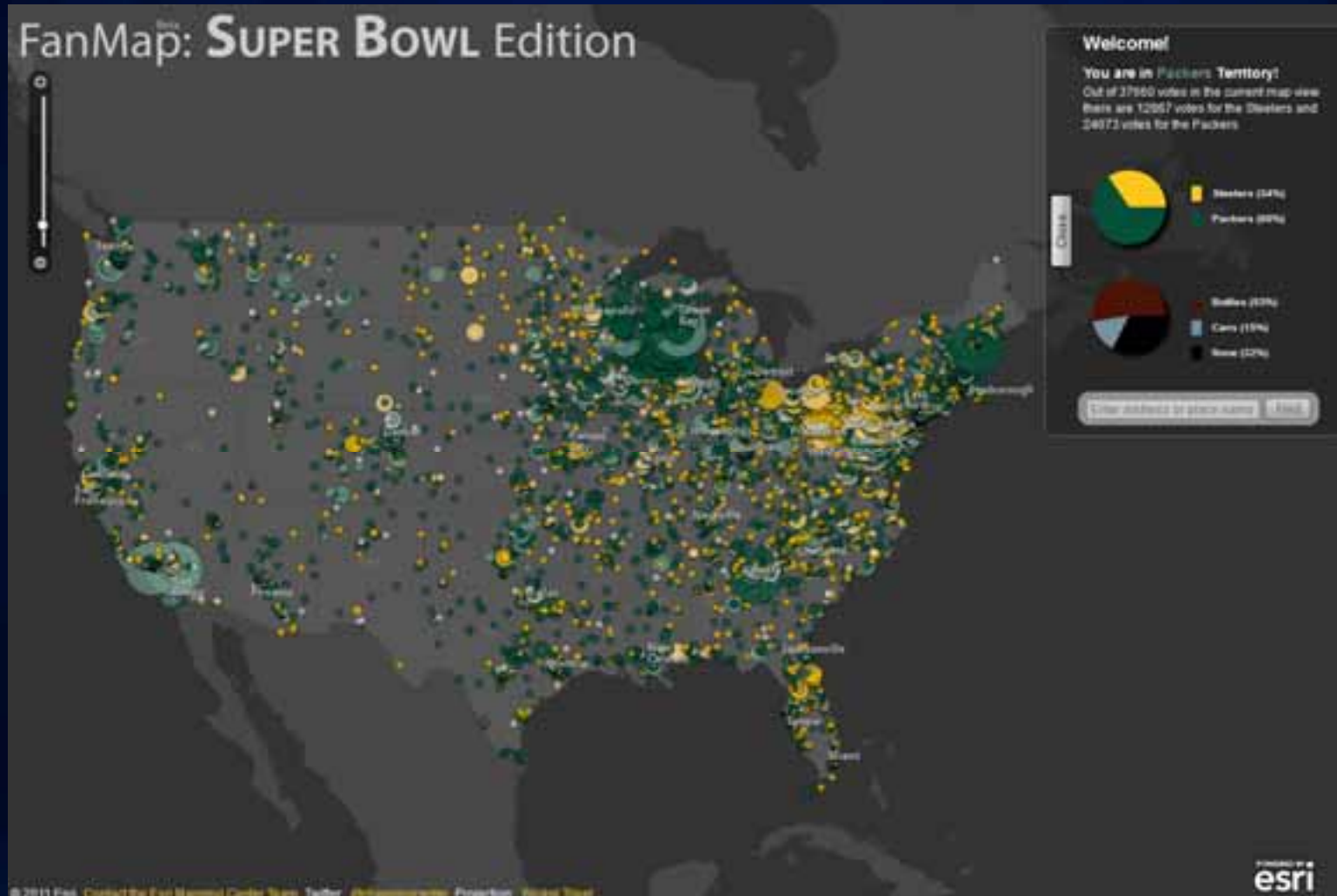


- **Projection**

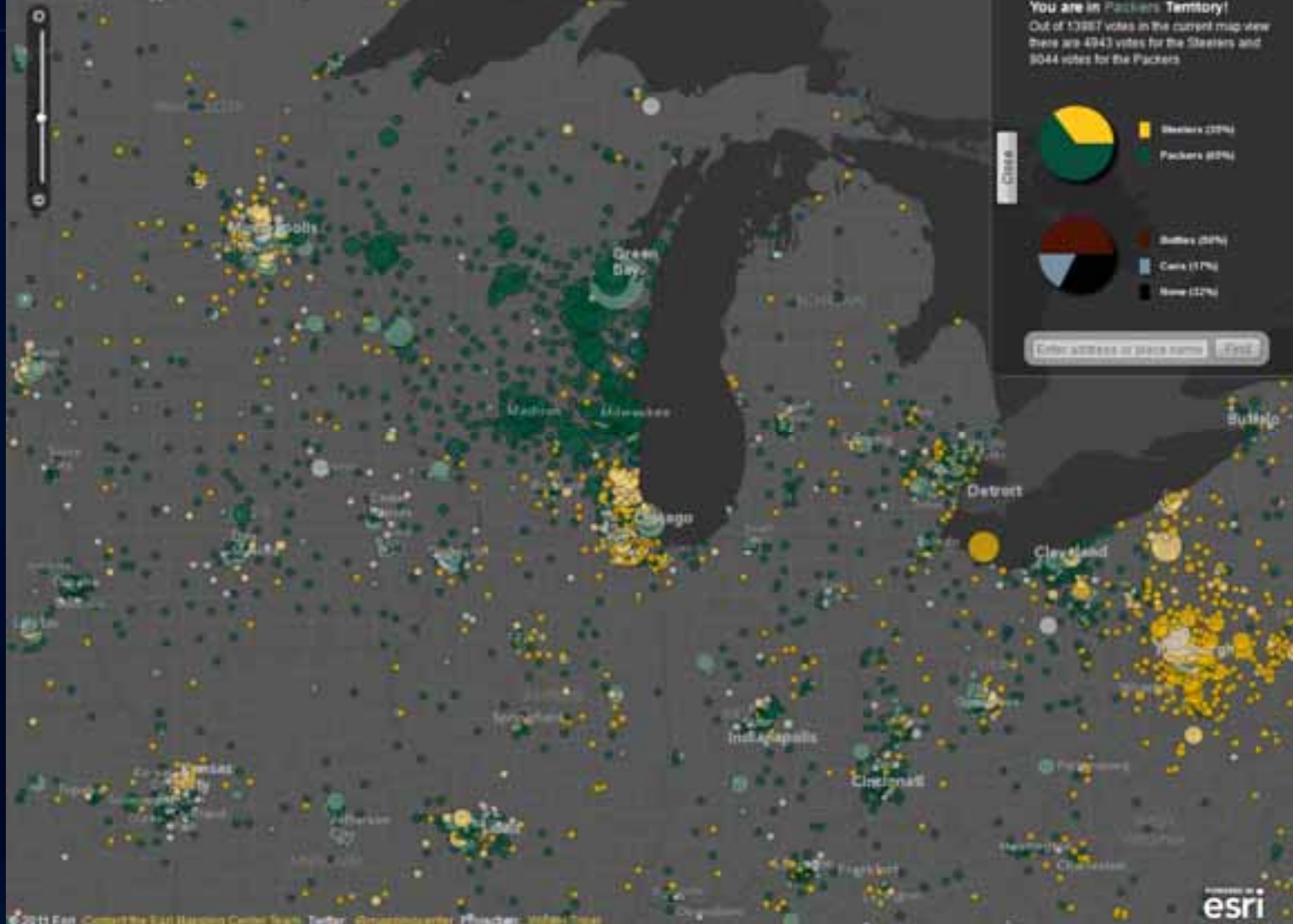
- Winkel-Tripel
- Modified central meridian



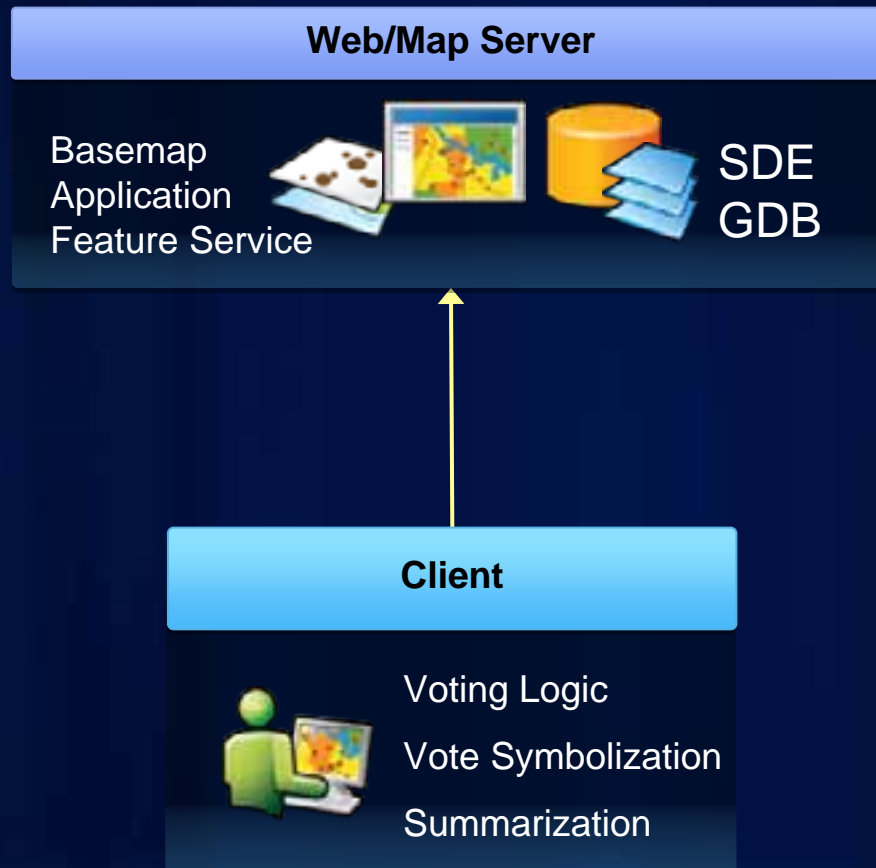
Super Bowl FanMap Production: Web Client



FanMap: SUPER BOWL Edition



Super Bowl FanMap: Architecture



Super Bowl FanMap: Vote Symbolology



- Symbolized in the client
- Color
 - Classed, based on team colors
 - Transparent!
- Size
 - Number of total votes
- Outline
 - Better visibility for overlapping symbols

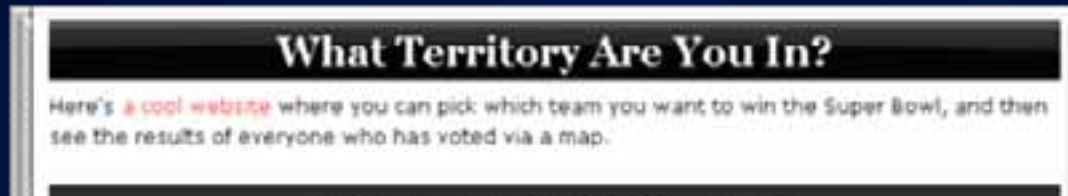
Super Bowl FanMap: Tech Vocab

- **SDE**
 - Spatially-enables an RDBMS such as Microsoft SQL Server and enables access from ArcGIS clients
 - Required for publishing editing-enabled services
- **FeatureService**
 - Type of data service that allows client to access and edit features
 - Allows editing if used with a FeatureLayer and ArcSDE

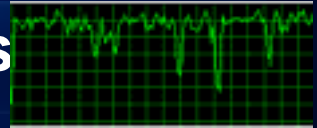


VIRAL: A nice problem to have

Sports Illustrated:



Super Bowl FanMap: Architectural Issues



- High Server Load
 - Slow response time for app, maps
- High Client Load
 - High number of features result in slow drawing, panning
 - UI lockup during vote summarization



Super Bowl FanMap Production: Vote Collisions



Photo credit: viriyincy @ flickr

Basketball FanMap: Demo

Alex Yule, Mamata Akella, Kenny Ling



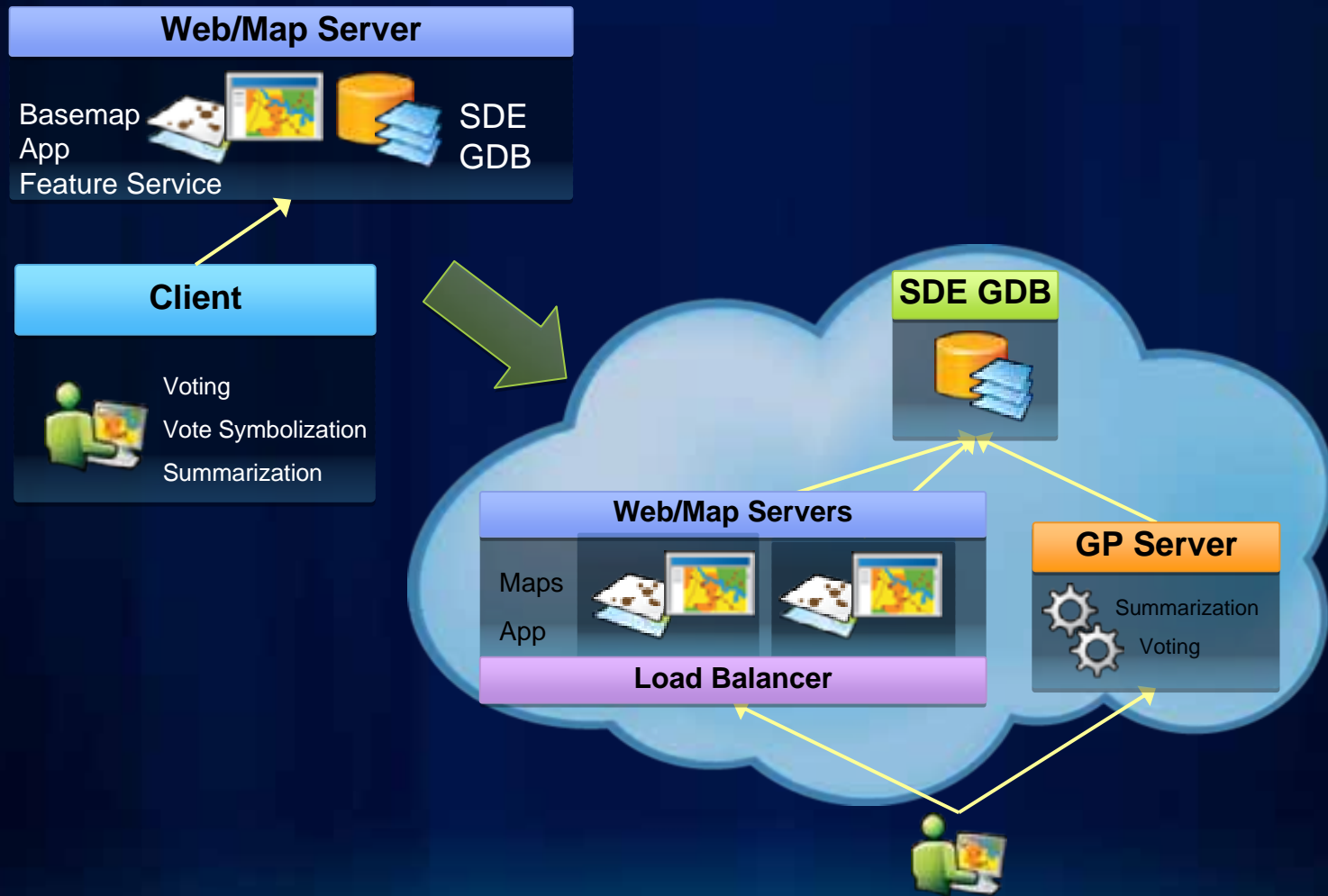
Conceptual Planning

- **Audience: General Public (sports fans)**
- **Functionality:**
 - Same as Super Bowl app
 - Configurability
- **Look and feel: Dark, minimalist slate basemap with slick UI**
- **Existing codebase: Super Bowl FanMap**
- **Platform: Javascript**
- **User load: Moderate with potential for large viral spikes**
 - 10 concurrent users
- **Deployment target: 4-tier Amazon cloud**

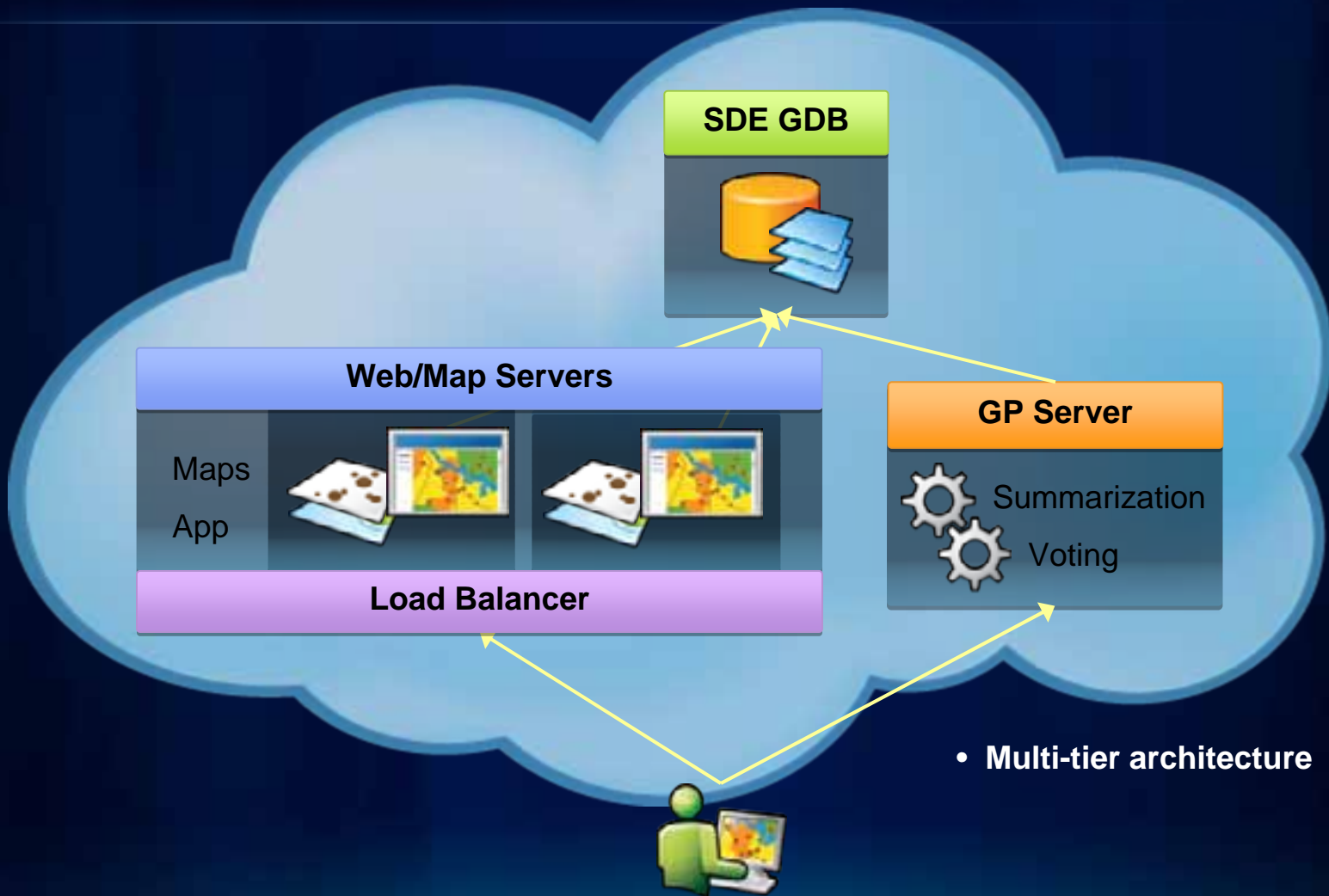
Basketball FanMap

- **Architecture**
- **Production**
 - Prototyping
 - Building
 - Designing
- **Deployment**

Basketball FanMap: Architecture



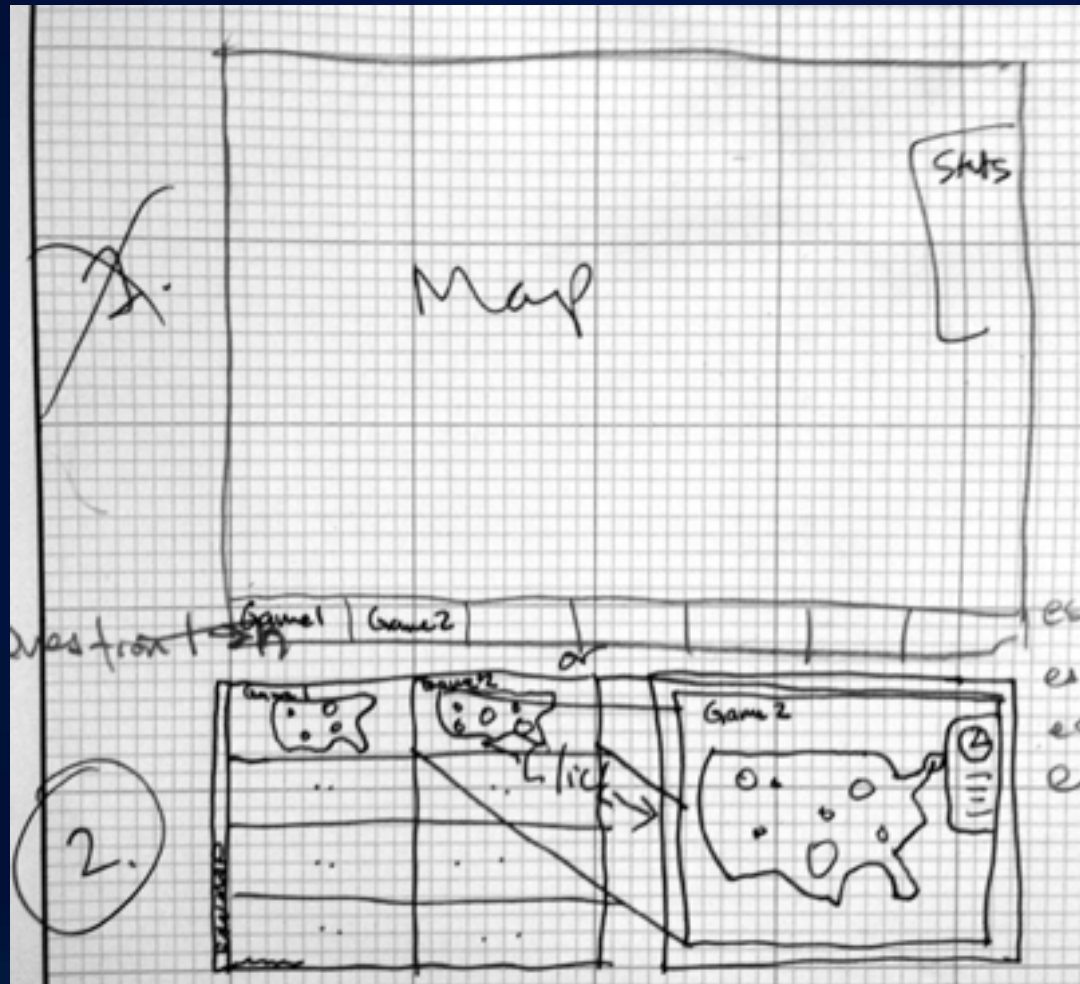
Basketball FanMap: Architecture



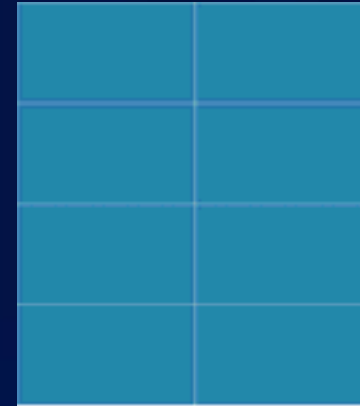
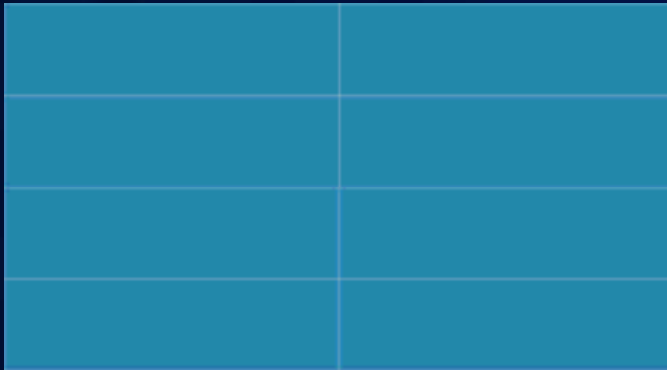
Basketball FanMap: Production – Server-side!

	Super Bowl	Basketball
Vote Symbolology	FeatureLayer	Dynamic Map Service
Voting	FeatureService	Geoprocessing
Summarization	Client	Geoprocessing
Server / Client		

FanMap Production: Prototyping the UI



FanMap Production: Prototyping the UI



Ohio State vs. Kentucky



Marquette vs. UNC



Kansas vs. Richmond



Virginia Commonwealth vs. Florida State



Duke vs. Arizona



UConn vs. San



UConn vs. San Diego State



Brigham Young vs. Florida



Welcome to the FanMap™ Bracketography Edition!

You fill out your bracket to win your pool...

But who do you really want to win?

Ohio State vs. Kentucky

Marquette vs. UNC

Kansas vs. Richmond

Virginia Commonwealth vs. Florida State

Duke vs. Arizona

UConn vs. San Diego State

Butler vs. Wisconsin

Brigham Young vs. Florida

Enter US or Canadian Postal Code

Vote! Close

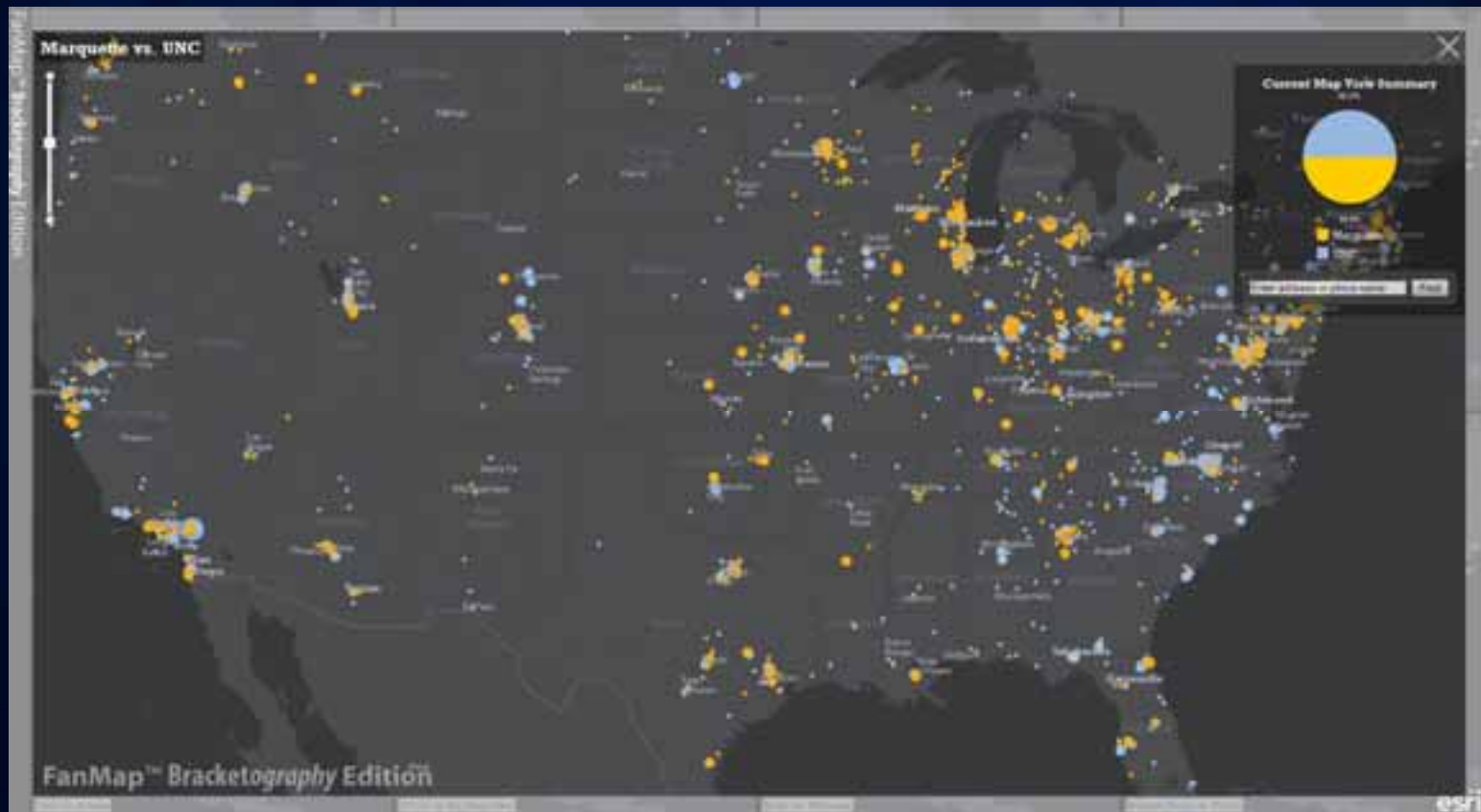
108

Like

Tweet

esri

a Mapping Center project | about the app | versions: [Sweet 16] [Elite 8] [Final Four] [Championship]

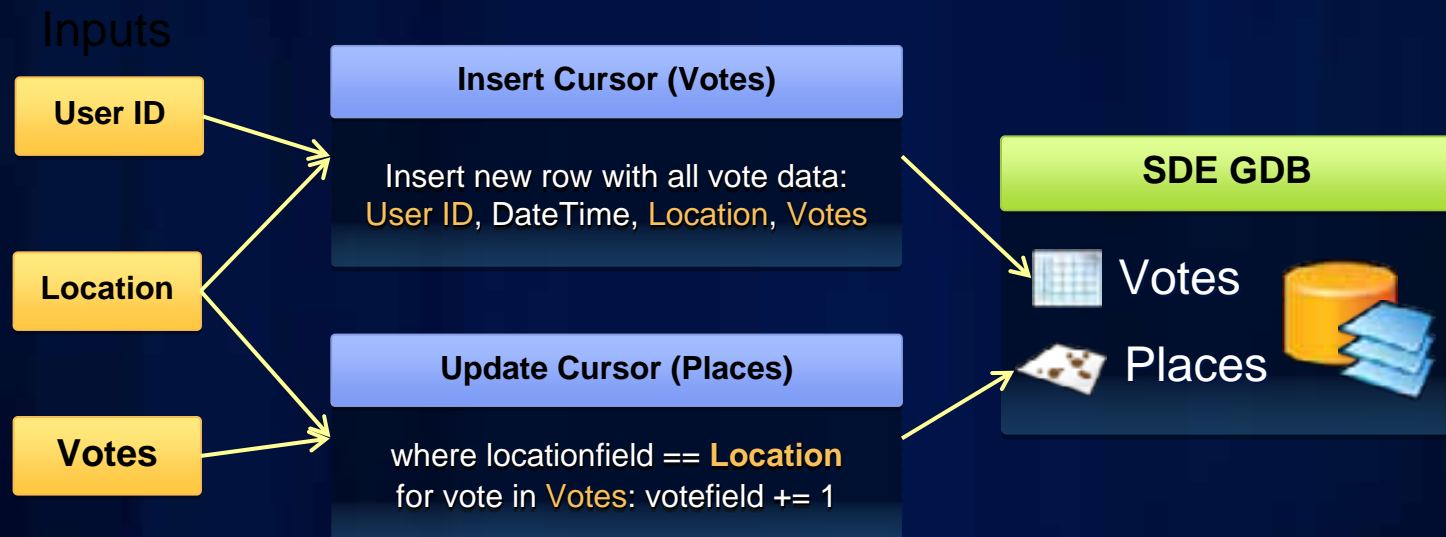


Basketball FanMap Prototyping: Voting

- Start with the highest risk functionality (voting)
 - Get that working, then move on
- 1. Mock out steps for vote service



Basketball FanMap Prototyping: Voting Service

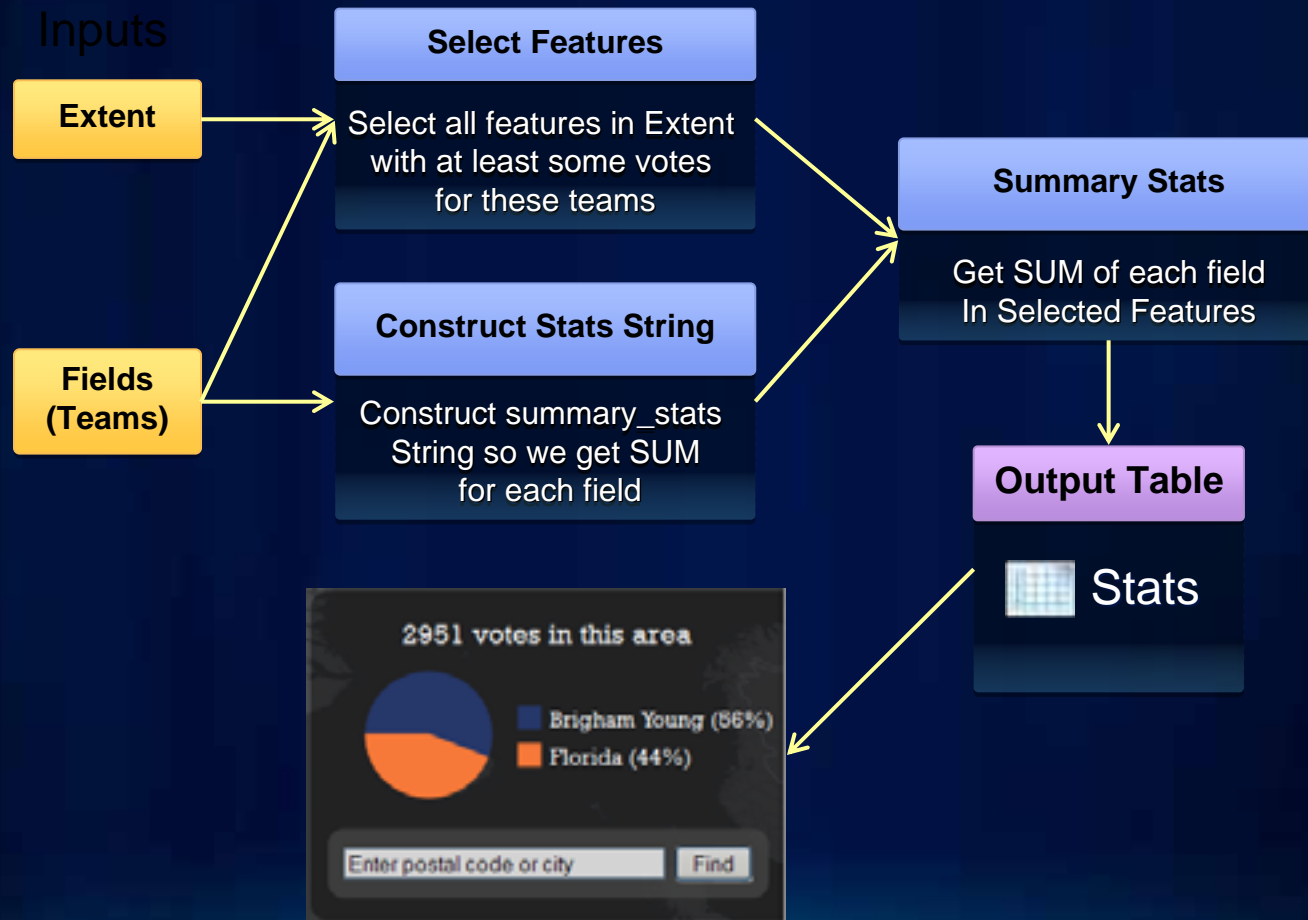


Basketball FanMap Prototyping: Voting

- **Start with the highest risk functionality (voting)**
 - Get that working, then move on
1. **Mock out steps for vote service**
 2. **Test each step in ArcMap**
 3. **Put steps together into script**
 4. **Test in ArcMap as script tool**
 5. **Publish and test as GP service**
 6. **Integrate into App**



Basketball FanMap Prototyping: Summarization



DeKalb County Board

Fulton County Dept. of Health and Wellness/District 3, Unit 2, 04/11/2011

Basketball FanMap Aesthetics

Mamata Akella

West Valley City
Salt Lake City
Taylorsville
Sandy
Orem
Provo

San Antonio
Dallas
Phoenix
San Diego
San Jose
San Francisco
Seattle
Portland
Boston
New York
Los Angeles
Chicago
Houston
Philadelphia
Washington, D.C.
Denver
San Francisco
San Jose
Seattle
Portland
Boston
New York
Los Angeles
Chicago
Houston
Philadelphia
Washington, D.C.
Denver

Oceanside
Escondido
San Diego
Chula Vista

Boston
Worcester
Attleboro
Framingham
Providence
Quincy
Warwick
Fall River
New Bedford

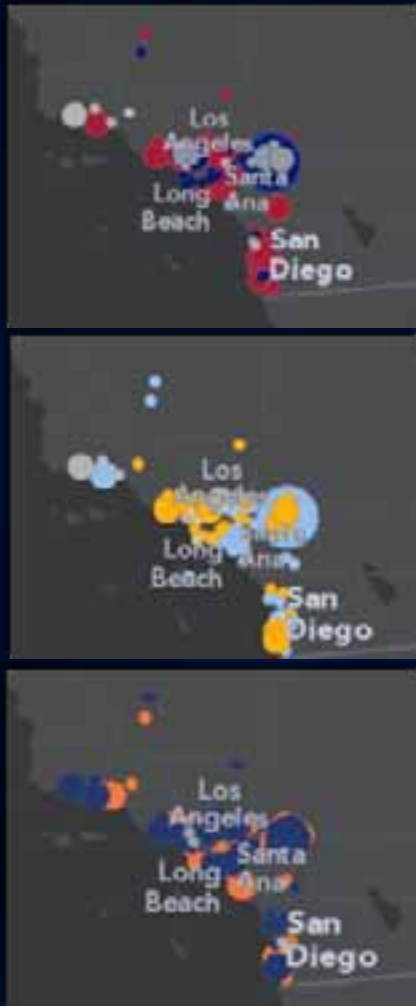
Basketball FanMap: “Map Sandwich”



- **How it works**

- The ‘basemap’ is split into two map services:
 - Reference (top)
 - Base (bottom)
- Combined with thematic content
 - Votes (middle)

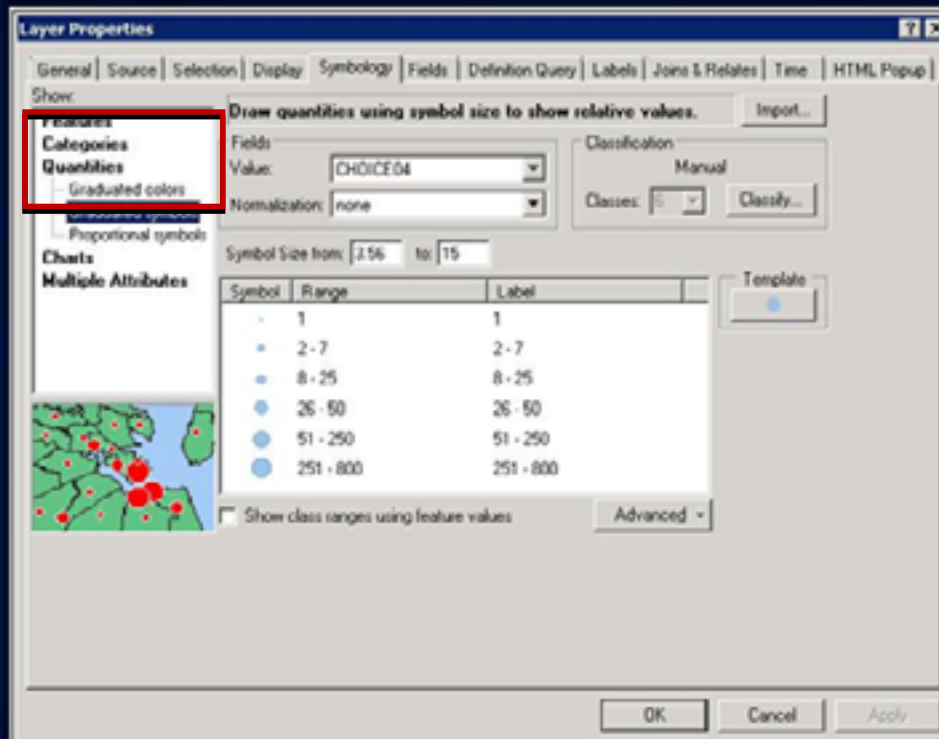
Basketball FanMap: Vote Symbology Basics



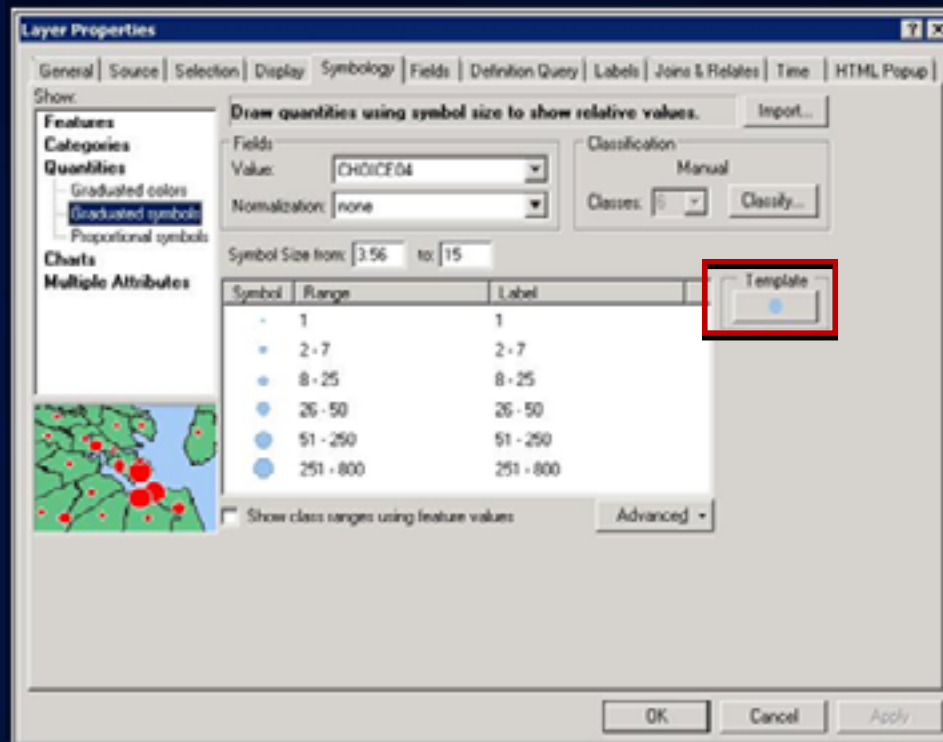
- **Color**
 - Based on each university's team colors
 - Gray = tied
- **Size**
 - Total number of votes
- **Outline**
 - Better visibility for overlapping symbols

Basketball FanMap: Vote Symbolology Basics

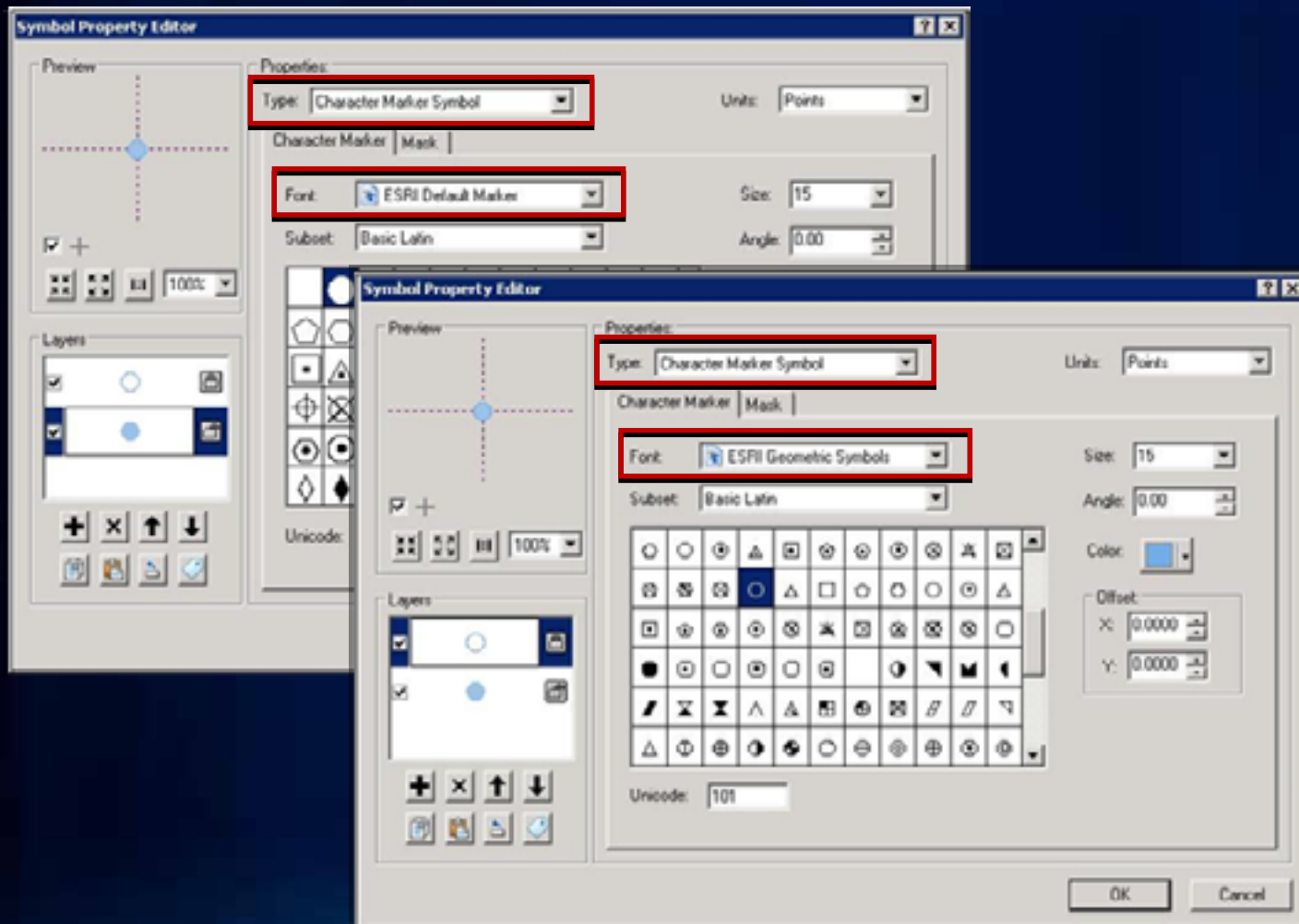
- Quantities > Graduated Symbols



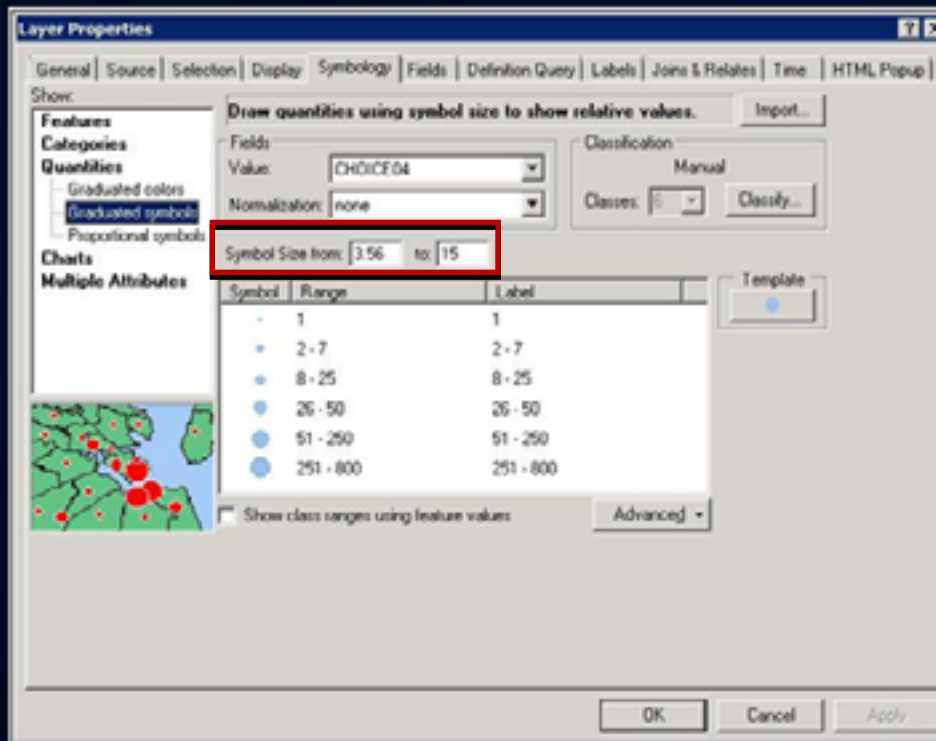
Basketball FanMap: Vote Symbolology Specifics



Basketball FanMap: Vote Symbology Specifics



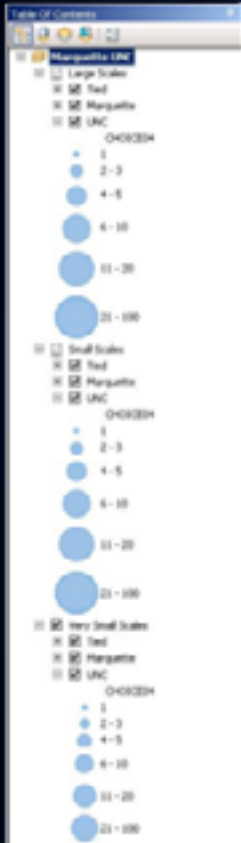
Basketball FanMap: Vote Symbology Specifics



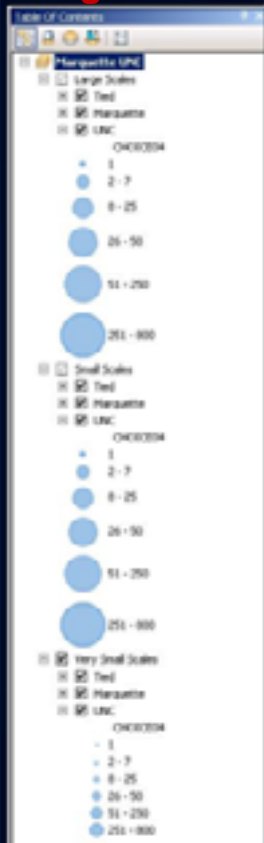
- **Minimum Symbol Size**
 - Non integer
 - Better rendering

Basketball FanMap: Vote Symbology Specifics

Low Vote



High Vote



Scale Range

You can specify the range of scales at which this layer will be shown:

☐ Show layer at all scales

☒ Don't show layer when zoomed:

Out beyond: 1,400,000 (minimum scale)

In beyond: <None> (maximum scale)

Scale Range

You can specify the range of scales at which this layer will be shown:

☐ Show layer at all scales

☒ Don't show layer when zoomed:

Out beyond: 1,25,000,000 (minimum scale)

In beyond: 1,400,000 (maximum scale)

Scale Range

You can specify the range of scales at which this layer will be shown:

☐ Show layer at all scales

☒ Don't show layer when zoomed:

Out beyond: <None> (minimum scale)

In beyond: 1,25,000,000 (maximum scale)

- **Vote symbology**
 - Multi-scale
 - Varied by time period

ITERATE!

Who do you want to win?

Enter ZIP Code: This value is required

Ohio St	vs	Villanova
Connecticut	vs	Duke
Pittsburgh	vs	UNC
San Diego St	vs	Wisconsin
Kansas	vs	Louisville
Rainham	vs	Georgetown
Yonah	vs	Washington
Missouri	vs	Florida
Texas	vs	

Welcome to the FanMap™ March Madness Edition

Who do you want to win?

Ohio St	vs	Villanova
Connecticut	vs	Duke
Pittsburgh	vs	UNC
San Diego St	vs	Wisconsin
Kansas	vs	Louisville
Rainham	vs	Georgetown
Yonah	vs	Washington
Missouri	vs	Florida
Texas	vs	

Enter ZIP Code:

Welcome to the FanMap™ March Madness Edition

Who do you want to win?

Ohio St	vs	Villanova
Connecticut	vs	Duke
Pittsburgh	vs	UNC
San Diego St	vs	Wisconsin
Kansas	vs	Louisville
Rainham	vs	Georgetown
Yonah	vs	Washington
Missouri	vs	Florida
Texas	vs	

Enter ZIP Code:

Welcome to the FanMap™ Bracketography Edition!

You'll need help you have to fill out a bracket to win your pool.

The FanMap™ has you now with your team.

Who do you want to win?

Ohio State	vs	Kentucky
Marquette	vs	UNC
Kansas	vs	Schmond
Virginia Commonwealth	vs	Florida State
Duke	vs	Arizona
UCI	vs	San Diego State
Butler	vs	Wisconsin
Brigham Young	vs	Florida

Enter ZIP Code:

Welcome to the FanMap™ Bracketography Edition!

You'll need your bracket to win your pool.

Who do you really want to win?

Ohio State	vs	Kentucky
Marquette	vs	UNC
Kansas	vs	Schmond
Virginia Commonwealth	vs	Florida State
Duke	vs	Arizona
UCI	vs	San Diego State
Butler	vs	Wisconsin
Brigham Young	vs	Florida

Enter US or Canadian Postal Code:

Welcome to the FanMap™ Bracketography Edition!

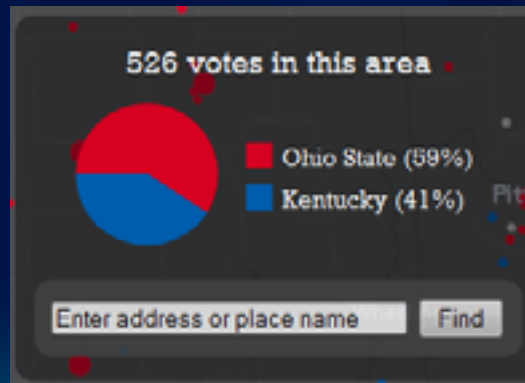
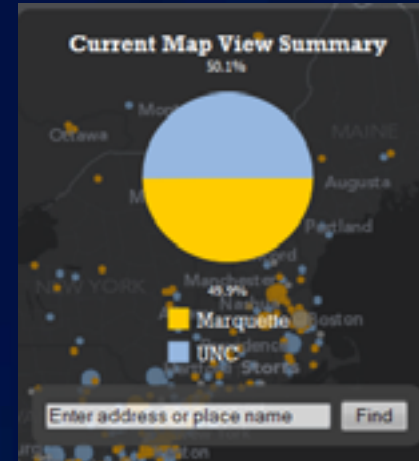
You'll need your bracket to win your pool.

But who do you really want to win?

Ohio State	vs	Kentucky
Marquette	vs	UNC
Kansas	vs	Schmond
Virginia Commonwealth	vs	Florida State
Duke	vs	Arizona
UCI	vs	San Diego State
Butler	vs	Wisconsin
Brigham Young	vs	Florida

Enter US or Canadian Postal Code:

ITERATE!



Basketball FanMap Deployment

Kenny Ling

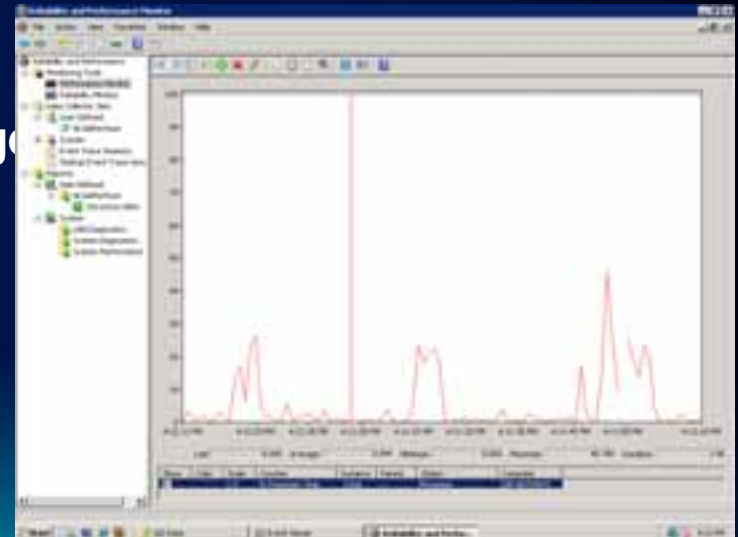


FanMap – Deployment/Architecture

- **Why use it?**
 - **Amazon Machine Images (AMIs)**
 - No need for new hardware requests or software installation
 - Start up new machines or backup
 - **Data portability+reliability**
 - Volumes
 - Snapshots
 - **Deployment**
 - Higher configuration machines
 - Machine replicas

FanMap – Deployment/Architecture

- **Replicating your servers**
 - Updating services
 - Load balancing
 - Failsafe in case Amazon servers in one region goes down
- **Monitoring your services**
 - Set up Performance Monitor logs
 - Track performance in Task Manager

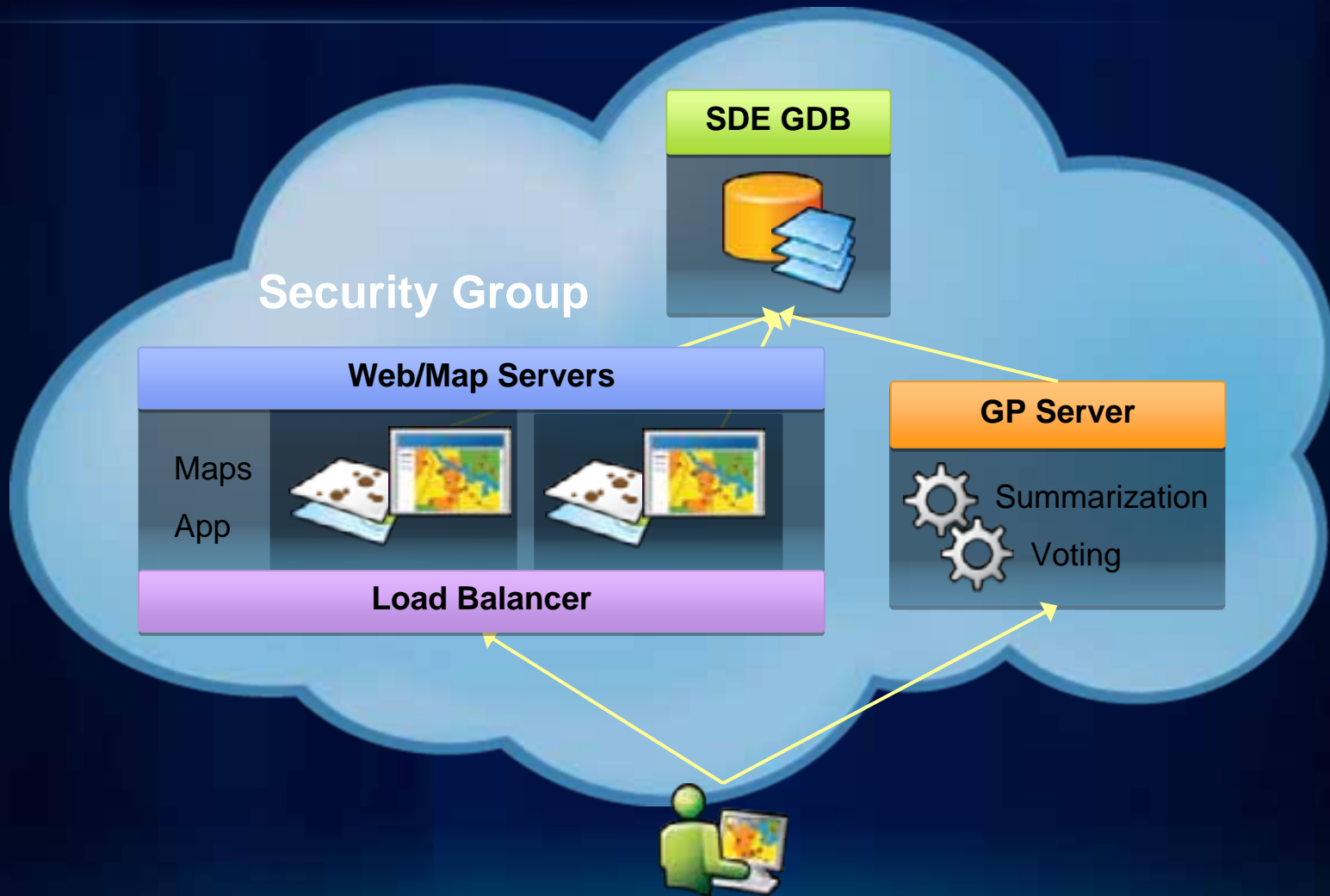


FanMap – Deployment/Architecture

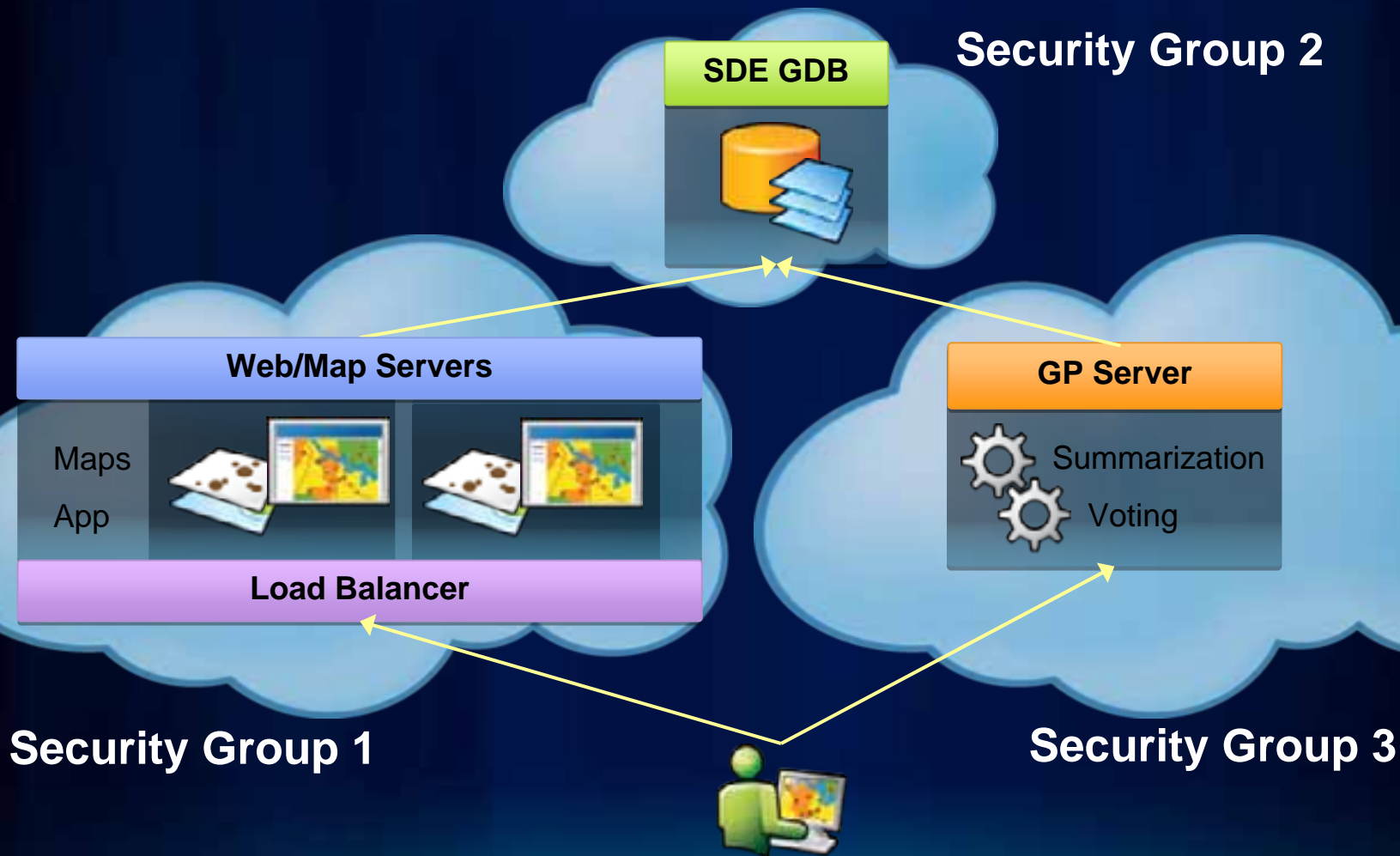
- **Things to be aware of:**
 - **Instances are inaccessible whilst creating images**
 - **Transferring your cache to the cloud may take a long time**
 - **Option: Cache in the cloud**
 - **Plan security settings/groups in advance**
 - **Security groups cannot be changed once instance is started**



FanMap – Deployment/Architecture



FanMap – Deployment/Architecture



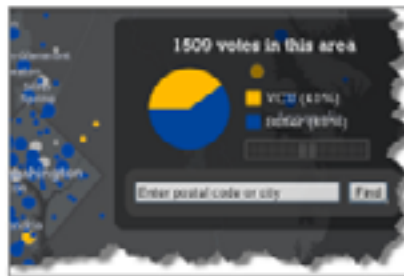
Part II: Using the PollMap Template

Jim Herries



FanMap → PollMap: Birth of a Template

PollMap Application Template for ArcGIS 10



Web Mapping Application by MappingCenterTeam (last modified: April 28, 2011)

★★★★★ (5 ratings, 449 views, 58 downloads)

Sign in to rate this item.



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Open ▼

- ***What's Included***

- Application source code
- Geoprocessing source code
- Map service MXDs
- Data for postal codes in the U.S. and Canada
- URLs to basemaps you can use during development
- Simple documentation

<http://bit.ly/pollmaptemplate>

Earth Day: How would you spend \$100?

Enter postal code or city

\$22,130 allocated in this area

- Climate Change (12%)
- Energy (22%)
- Population (12%)
- Air & Water (14%)
- Food Supplies (10%)
- Environmental Ed. (17%)
- Oceans & Fisheries (10%)

113

Earth Day

1 Week

Download the PollMap Template

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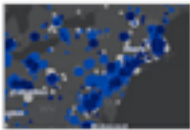
Search Results

Show 3 results for 'pollmap'

All Results
Maps
Applications
Tools

Related Searches
Find items published by Esri related to "pollmap"
Find groups related to "pollmap"

More Information
[What types of items can I find here?](#)
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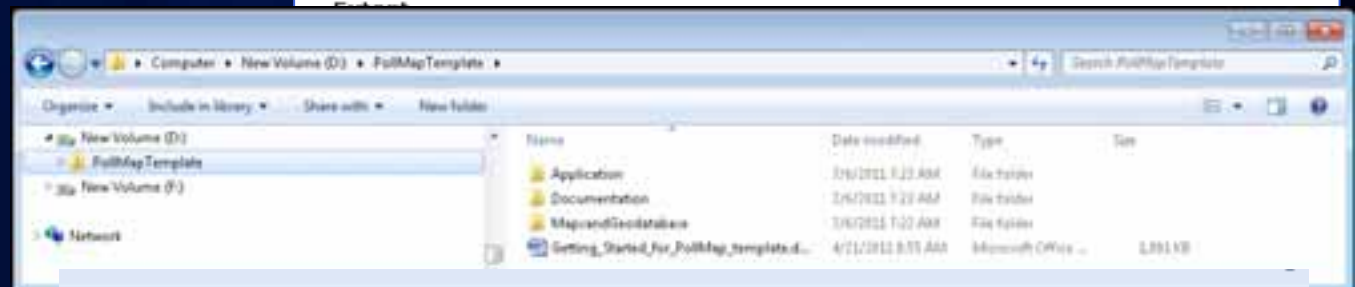
	Relevance	Title	Owner	Rating	Views	Date
		PollMap Application Template for ArcGIS 10				
<p>This PollMap Application allows you to capture and map public opinion on any issue or topic you configure. It encourages participation through a user experience that focuses on sim ...</p> <p>Web Mapping Application by MappingCenterTeam (last modified: April 28, 2011)</p> <p>★★★★★ (5 ratings, 3 comments, 494 views)</p>						
		Earth Day PollMap				
<p>Users are asked to invest \$100 among seven environmental issues. Results are displayed cumulatively on a world map.</p> <p>Web Mapping Application by MapStoriesTeam (last modified: April 21, 2011)</p> <p>★★★★☆ (3 ratings, 0 comments, 286 views)</p>						
		The 2011 NCAA College Basketball Championship Series				
<p>Who do you want to win?</p> <p>Web Mapping Application by MapStoriesTeam (last modified: April 21, 2011)</p> <p>☆☆☆☆☆ (0 ratings, 0 comments, 5 views)</p>						

Download the PollMap Template

- Download .ZIP file
- Unzip to a convenient folder
- Read the “Getting Started” document

Access and Use Constraints

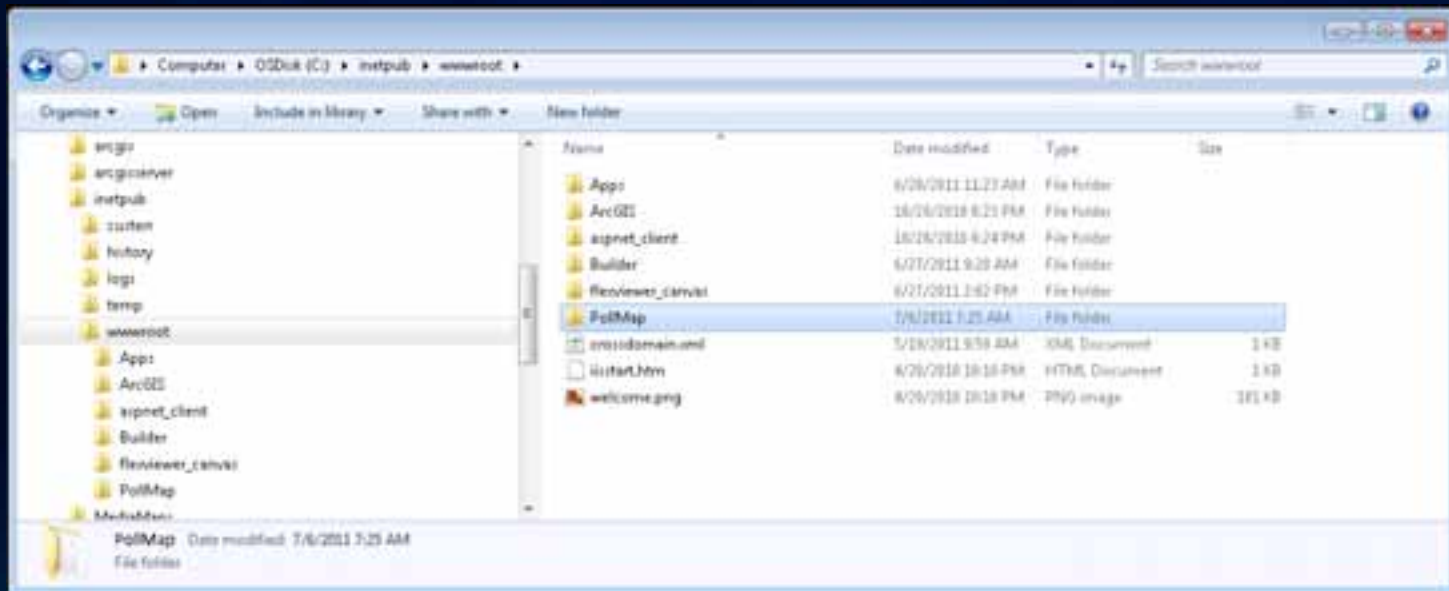
URL	http://fanmap.esri.com/collegehoops
Code Attachment	PollMapTemplate.zip Download
Purpose	Code Sample
API	JavaScript
Tags	FanMap, PollMap, poll map, poll, public opinion, collegehoops, template, local government, sports, ArcGIS Server 10, web application, constituent engagement
Credits	Esri, Inc.
Size	1 KB



Name	Date modified	Type	Size
Application	7/6/2011 7:16 AM	File folder	
Documentation	7/6/2011 7:16 AM	File folder	
MapsandGeodatabase	7/6/2011 7:16 AM	File folder	
Getting_Started_for_PollMap_template.d...	4/21/2011 8:55 AM	Microsoft Office ...	1,091 KB

Copy Application folder contents

- Open the Application folder
- Copy PollMap folder over to c:/inetpub/wwwroot (or equivalent)



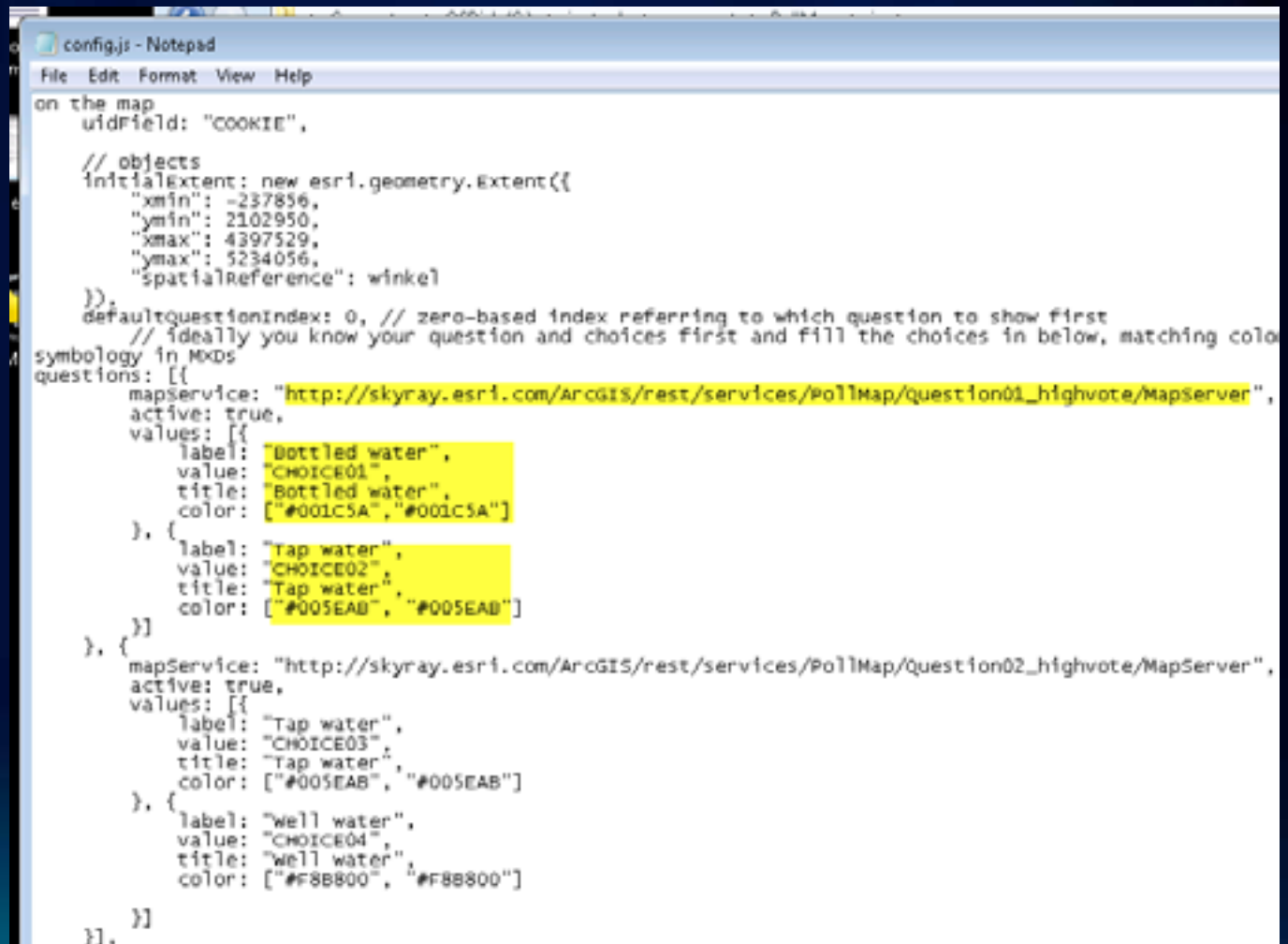
Set up you Question First in VoteWindow.html

- Getting the question right takes iteration
- This template is best for multiple A vs. B types of questions

```
VoteWindow.html - Notepad
File Edit Format View Help
<div class="vote-window">
  <!-- edit content in this div tag -->
  <div dojoAttachPoint="titleNode" class="vote-window-title">
    <p class="title">
      welcome to the Esri Pollmap
    </p>
    <p class="prompt-title">
      it's simple.
    </p>
    <p class="subtitle">
      which do you drink more often?
    </p>
  </div>
  <div class="vote-form" dojotype="dijit.Form.Form" dojoAttachPoint="voteForm">
    <div class="vote-question-wrapper">
      <table class="vote-questions">
        <tbody dojoAttachPoint="questionsNode">
          </tbody>
        </table>
        <div class="vote-question-error-text" dojoAttachPoint="voteQuestionErrorText">
          </div>
        <fieldset class="vote-location">
          <label dojoAttachPoint="locationLabelNode" for="locationInput"></label>
          <input id="locationInput" dojoAttachEvent="onkeydown:onLocationInputKeydown" dojoAttachPoint="locationInput" dojotype="dijit.form.ValidationTextBox" required="true" size="5">
          </input>
        </fieldset>
        <div class="vote-buttons">
          <button dojoAttachPoint="voteButton" class="vote-submit" dojotype="dijit.form.Button" dojoAttachEvent="onClick:onSubmit">vote!</button>
          <button class="vote-cancel" dojotype="dijit.form.Button" type="button" onClick="dijit('votewindow').dialog.onCancel();">close</button>
          <div class="loader" dojoAttachPoint="loader">
            </div>
        </div>
      </div>
      <div class="vote-error-message">
        <h2>We're sorry :(</h2>
        <p>
          A problem occurred while submitting your vote.
        </p>
        <p>
          Try it again by refreshing your browser.</p>
        <button type="button" class="vote-ok" onClick="dijit.byId('votewindow').dialog.onCancel();">
        </div>
      <div class="vote-success-message">
```

Set up choices in the config.js file

- Simple choices



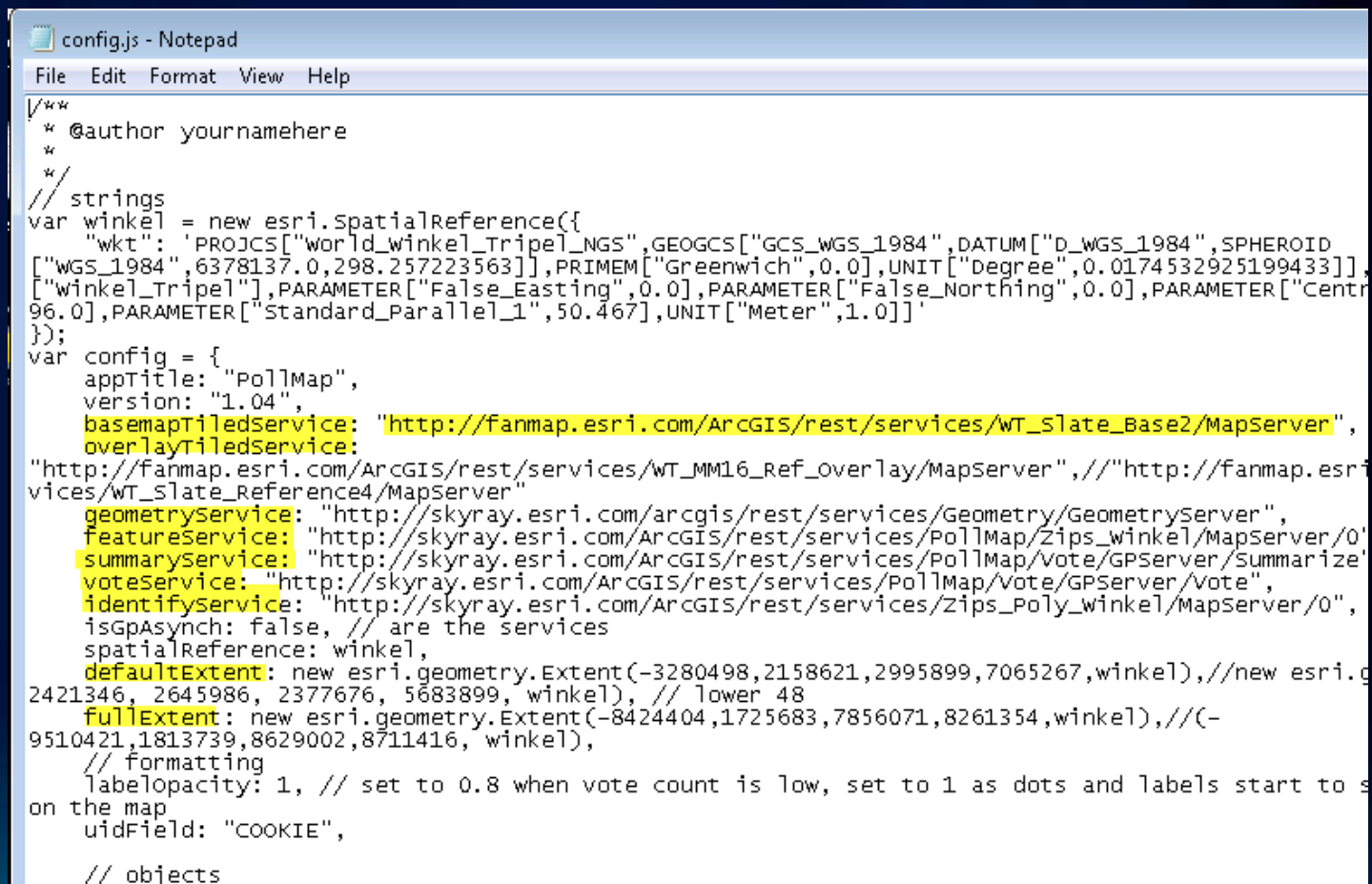
```
config.js - Notepad
File Edit Format View Help

on the map
  uidField: "COOKIE",

  // objects
  initialExtent: new esri.geometry.Extent({
    "xmin": -237856,
    "ymin": 2102950,
    "xmax": 4397529,
    "ymax": 5234056,
    "spatialReference": winkel
  }),
  defaultQuestionIndex: 0, // zero-based index referring to which question to show first
  // ideally you know your question and choices first and fill the choices in below, matching color
  symbology in MXDs
  questions: [{
    mapService: "http://skyray.esri.com/ArcGIS/rest/services/PollMap/Question01_highvote/MapServer",
    active: true,
    values: [{
      label: "Bottled water",
      value: "CHOICE01",
      title: "Bottled water",
      color: ["#001C5A", "#001C5A"]
    }, {
      label: "Tap water",
      value: "CHOICE02",
      title: "Tap water",
      color: ["#005EAB", "#005EAB"]
    }
  ]
}, {
  mapService: "http://skyray.esri.com/ArcGIS/rest/services/PollMap/Question02_highvote/MapServer",
  active: true,
  values: [{
    label: "Tap water",
    value: "CHOICE03",
    title: "Tap water",
    color: ["#005EAB", "#005EAB"]
  }, {
    label: "Well water",
    value: "CHOICE04",
    title: "Well water",
    color: ["#F8B800", "#F8B800"]
  }
]
}],
}
```

Set up maps and services in the config.js file

- Follow the Getting Started document



```
config.js - Notepad
File Edit Format View Help

/**
 * @author yournamehere
 *
 */
// strings
var winkel = new esri.SpatialReference({
  "wkt": 'PROJCS["world_winkel_Tripel_NGS",GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID
["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],
["winkel_Tripel"],PARAMETER["False_Easting",0.0],PARAMETER["False_Northing",0.0],PARAMETER["Centr
96.0],PARAMETER["Standard_Parallel_1",50.467],UNIT["Meter",1.0]]'
});
var config = {
  appTitle: "PollMap",
  version: "1.04",
  basemapTiledService: "http://fanmap.esri.com/ArcGIS/rest/services/WT_Slate_Base2/MapServer",
  overlayTiledService:
"http://fanmap.esri.com/ArcGIS/rest/services/WT_MM16_Ref_Overlay/MapServer",// "http://fanmap.esri
vices/WT_Slate_Reference4/MapServer"
  geometryService: "http://skyray.esri.com/arcgis/rest/services/Geometry/GeometryServer",
  featureService: "http://skyray.esri.com/ArcGIS/rest/services/PollMap/Zips_winkel/MapServer/0",
  summaryService: "http://skyray.esri.com/ArcGIS/rest/services/PollMap/Vote/GPserver/Summarize",
  voteService: "http://skyray.esri.com/ArcGIS/rest/services/PollMap/Vote/GPserver/Vote",
  identifyService: "http://skyray.esri.com/ArcGIS/rest/services/Zips_Poly_winkel/MapServer/0",
  isGpAsynch: false, // are the services
  spatialReference: winkel,
  defaultExtent: new esri.geometry.Extent(-3280498,2158621,2995899,7065267,winkel),//new esri.g
2421346, 2645986, 2377676, 5683899, winkel), // lower 48
  fullExtent: new esri.geometry.Extent(-8424404,1725683,7856071,8261354,winkel),//(-
9510421,1813739,8629002,8711416, winkel),
  // formatting
  labelopacity: 1, // set to 0.8 when vote count is low, set to 1 as dots and labels start to s
on the map
  uidField: "COOKIE",
  // objects
```

PollMap™ Happiness Index Edition

- **Good example of someone taking the template, then customizing it further.**

Sample from Ireland



Wrap-up

- Fun project
- Tapped into something
- Touched on many things:
 - Cartography
 - User experience
 - Intelligent maps
 - Social media interaction
 - Geoprocessing services
 - Cloud
 - Flex and JavaScript
- A team to pull it together, under deadline

Thank You!

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- Jim Herries: jherries@esri.com - twitter: @jherries
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- Kenny Ling: kling@esri.com

- Mapping Center Team
 - <http://mappingcenter.esri.com>
 - twitter: @mappingcenter

- Feedback
 - <http://www.esri.com/sessionevals>