

Regulatory Utility Commission Public GIS Web Solution



Esri User Conference
July, 2015



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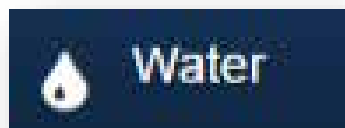
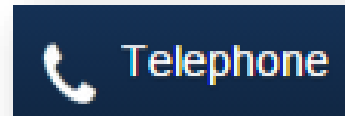
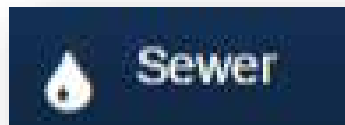
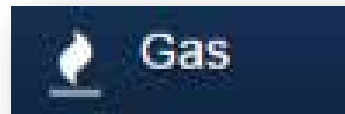
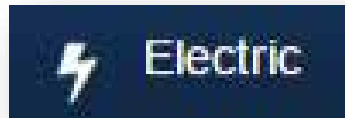


Arizona Corporation Commission

- Regulates essential utility services in the state of Arizona
- Established by Article 15 of the Arizona Constitution
- 5 Elected Member Commission serving a staggered four-year term




Utility Oversight



Strategic Plan and Director's Vision

- **Maintain Geospatial Utility Boundaries**
- **Better Serve Customers in Arizona**



A close-up photograph of a bright green pushpin with a silver metal stem, pinned to a colorful map. The map shows various colored lines representing roads and geographical features. The background is a soft, out-of-focus gradient of orange and yellow.

“What regulated utilities are available at my address?”

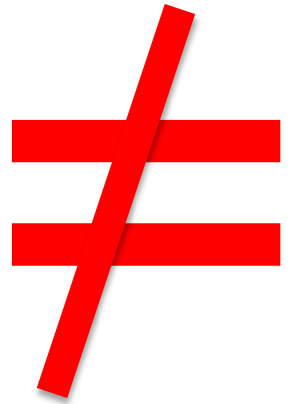
Who are the intended users?

- Executive Consultants/ACC Staff (internal)
- Relators/Bank-Lending (external)
- Attorneys/Paralegals (external)
- AZ Residents (external)



What Technology is Appropriate?

- Esri
- SQL Server
- HTML 5, JavaScript
- Browsers – IE, Firefox, Chrome, & Safari
- Mobile devices including phones & tablets



PROJECT PLAN

Arizona Corporation Commission
 Geographic Information Systems Web-Based GIS Map Viewer

November, 2013

AZCCMAPS.COM

How to add new Utility to the system

Utilities cannot be created within the AZCCMAPS website and must be provided by AZCC. The following describes the workflow.

Step 1: AZCC provides DTS with AccessToData

Utilities are stored in a SQL database table within AZCC. A query has been developed to Comins Support of AZCC to extract relevant utility data from a specified year. **PTC DOES NOT HAVE THIS QUERY. IT SHOULD BE GOOD TO INCLUDE IT IN THIS DOCUMENT.** Query results schema is included in the following CREATE TABLE script provided by Comins.

AZCC will provide an INSERT script using query results that conforms to the table schema provided.

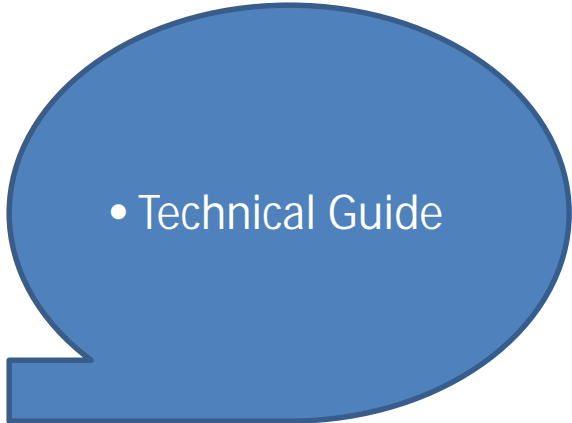
```

CREATE TABLE [dbo].[AccessToData] (
    [UtilityID] int,
    [UtilityName] varchar(255),
    [UtilityType] varchar(255),
    [UtilityAddress] varchar(255),
    [UtilityCity] varchar(255),
    [UtilityState] varchar(255),
    [UtilityZip] varchar(255),
    [UtilityMeters] varchar(255),
    [UtilityMetersPerYear] varchar(255),
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    [UtilityMetersPerYear99] varchar(255),
    [UtilityMetersPerYear100] varchar(255)
)
    
```

Step 2: DTS inserts new utility(s) into system

DTS takes the site down and displays the "down for maintenance" page while the following work is completed.

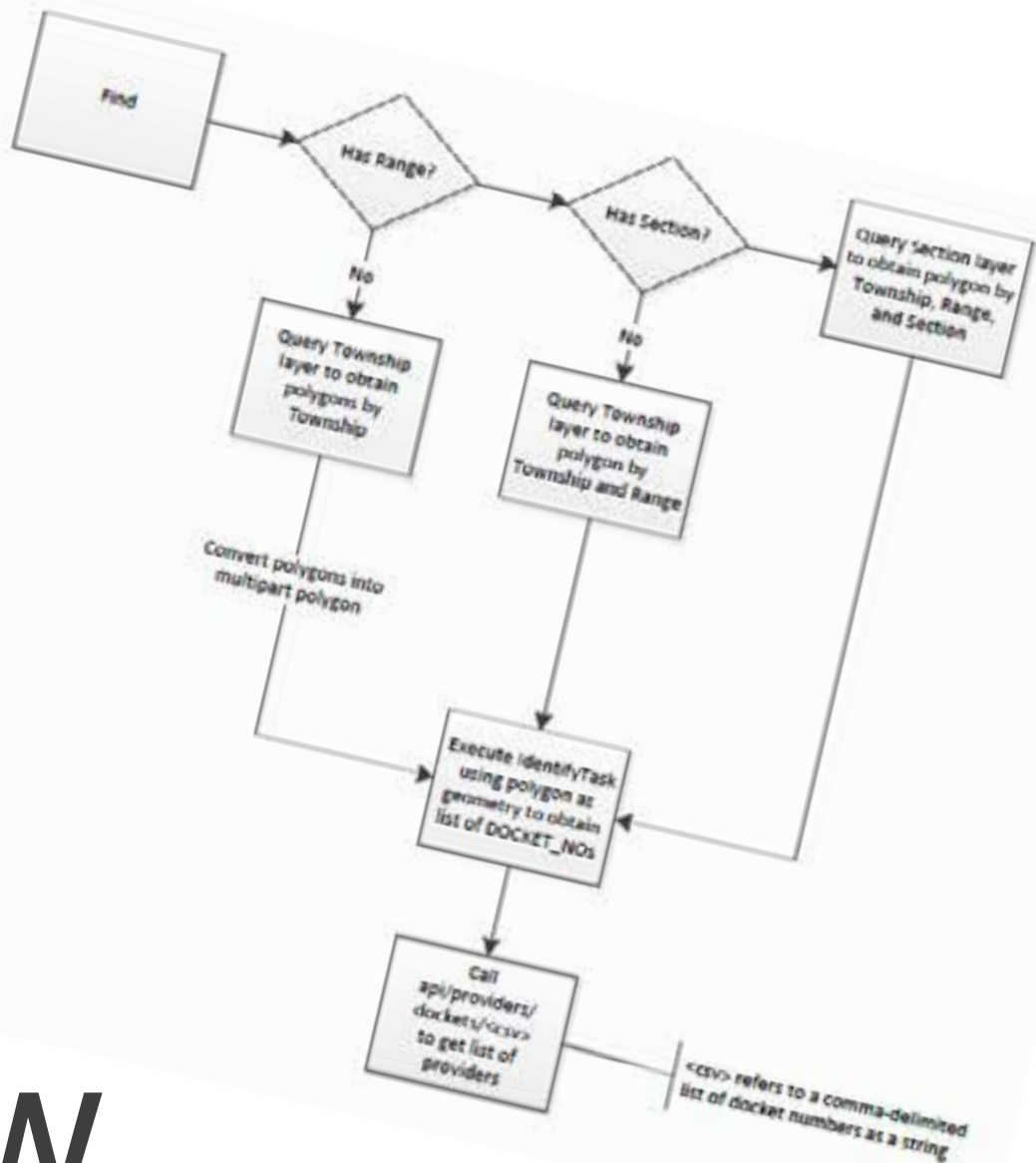
The insert script that was provided by AZCC (in step 1) is updated by DTS to point to the UtilityProvider table in the spatial database.





meet
with **users**

design workflow



Things TO DO ...

Date: February 8, 2008


Priority

- 1 Build login screen
- 2 Print preview
- 3 User management
- 4 Format graphics
- 5 Align text
- 6 Save files
- 7 Simple queries
- 8 Edit graphics
- 9 Undo last action
- 10 Add quick effects

create
the backlog

design the interfaces

INTERACTIVE UTILITY MAP

 **ARIZONA**
Corporation Commission

Enter an address to receive a list of utilities:

Earl geocode support API to auto-complete addresses

| Utility Type | Name | Phone | Address |
|--------------|-----------|--------------|--------------------------|
| Gas | SuperGas | 333-555-4466 | 123 Main St., City 00234 |
| Electric | Zip Co. | 333-555-3258 | 123 Main St., City 00234 |
| Telephone | Ring Bell | 333-555-1470 | 123 Main St., City 00234 |
| Water | Tidal | 333-555-1234 | 123 Main St., City 00234 |

dotidb.com

INTERACTIVE UTILITY MAPS

Electric Gas Telephone Water/Sewer

Yellow Note:
Suggest API parameters:
- test - the test input value on key down string, this is the search string
- location - should probably use an ACC geocode OR the user's current location if deriving from browser. Maybe test which provides better UX
- distance - in meters radius size with this to provide more relevant results.

Flow:
1. Get suggestions via
[http://www.arizona.gov/acc/geocode/](#)
2. On user selection, geocode the address via
[http://www.arizona.gov/acc/geocode/](#)
3. Take point returned and execute an identify against the ACC map service to get list of DOCKET_NOs
4. Call our WebAPI method passing docket numbers to receive list of utility provider results to be loaded into the dotidb

Wire-Frames

Search Address

Default configuration

You may enter a Street Address, a Township, a Range, a Section or a Utility name.

Street Address —

 🔍

Township, Range, Section +

Utility Provider Name +

Clicking a search section title area expands that section while collapsing all other sections.

As user types address, auto-complete suggestions will be made. This will utilize a Esri's geolocation services.

TRS Search

You may enter a Street Address, a Township, a Range, a Section or a Utility name.

Street Address +

Township, Range, Section —

T: R: S:

Utility Provider Name +

As user types township, auto-complete suggestions will be made. Subsequent inputs will also be filtered and auto-complete enabled.

This will utilize a backend API that has access to all relevant TRS data.

Utility Provider Search

You may enter a Street Address, a Township, a Range, a Section or a Utility name.

Street Address +

Township, Range, Section +

Utility Provider Name —

 🔍

As user types utility provider name, auto-complete suggestions will be made.

This will utilize a backend API that has access to all providers.

Mock-Ups


ARIZONA
Corporation Commission
INTERACTIVE UTILITY MAP

URL: /resources/arcc.com/en/help/arc-get-test-ups/index.html?lat=30.000002&lon=109.000000

Suggest API parameters

- `text` - the text input value on key down stroke. this is the search string
- `location` - should probably use an ACC centroid OR the user's current location if deriving from browser. Maybe test which provides better UX.
- `distance` - in meters radius. play with this to provide more relevant results.

Flow

- Get suggestions via <http://geocode.arcc.com/arcapi/test/services/World/GeocodeServer/suggest?lat=location&lon=lat&radius=distance>
- On user selection, geocode the address via <http://geocode.arcc.com/arcapi/test/services/World/GeocodeServer/find?lat=lat&lon=lon>
- Take point returned and execute on identify against the ACC map service to get list of DUCKS / NUs.
- Call our WebAPI method passing duck numbers to receive list of utility provider results to be loaded into the datatable.

Enter an address to receive a list of utilities:

} Call geocode suggest API to auto-complete addresses

| Utility Type | Name | Phone | Address |
|--------------|-----------|--------------|--------------------------|
| Gas | SuperGas | 303-555-4466 | 123 Main St., City 00234 |
| Electric | Zap Co | 303-555-3258 | 123 Main St., City 00234 |
| Telephone | Ring Bell | 303-555-1428 | 123 Main St., City 00234 |
| Water | Tidal | 303-555-1234 | 123 Main St., City 00234 |

} doatbles.net

INTERACTIVE UTILITY MAPS

Electric

Gas

Telephone

Water/Sewer

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Log in.

Use a local account to log in.

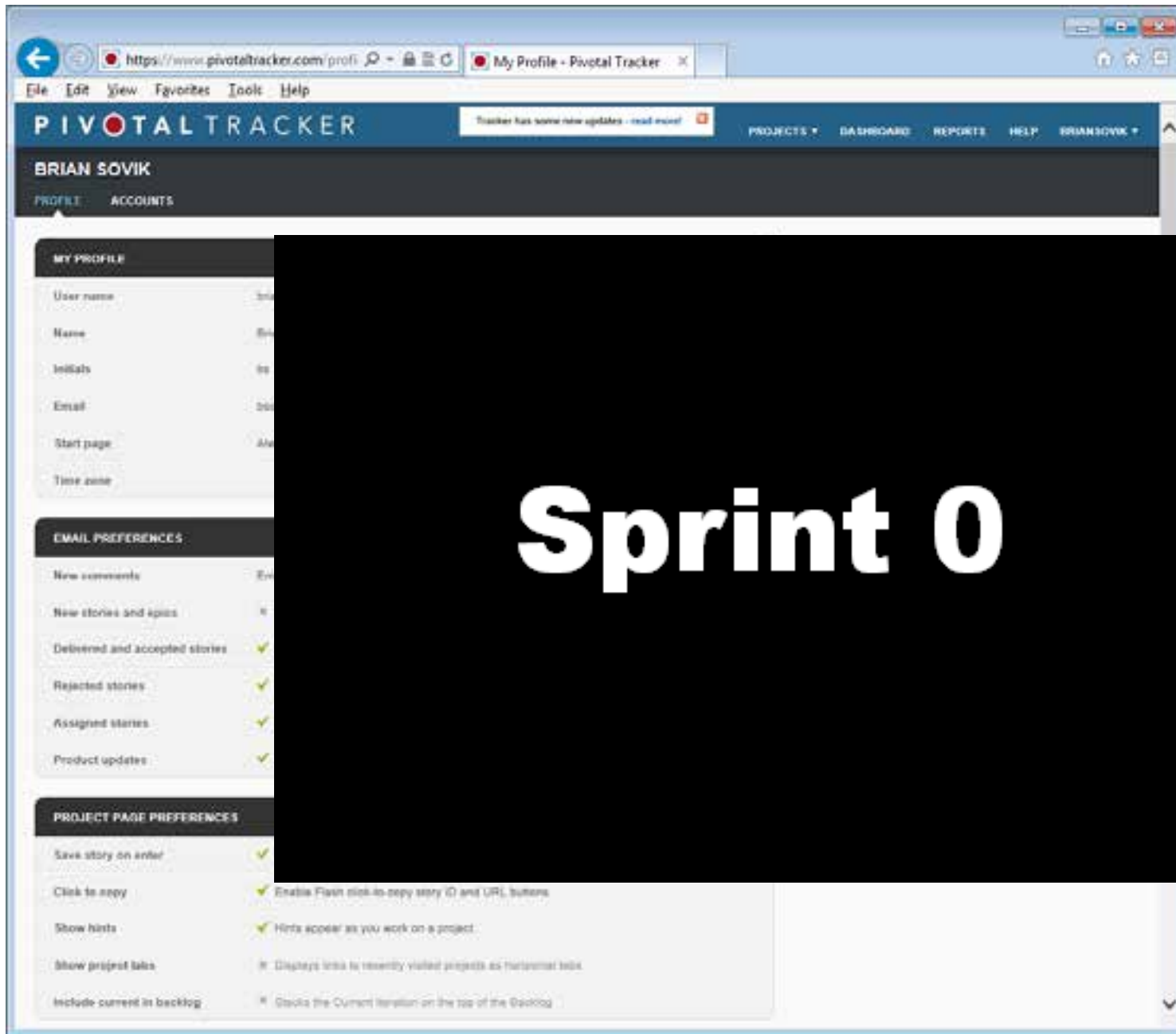
User name

Password

Remember me?

[Log In](#)

| [I forgot my password.](#) [Don't have an account?](#) [Register.](#)

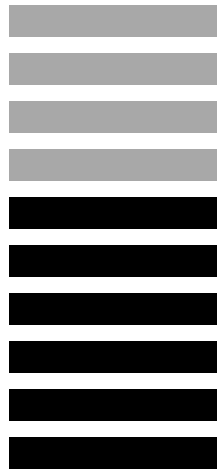


Sprint 0

code.code.code.
code.code.code.

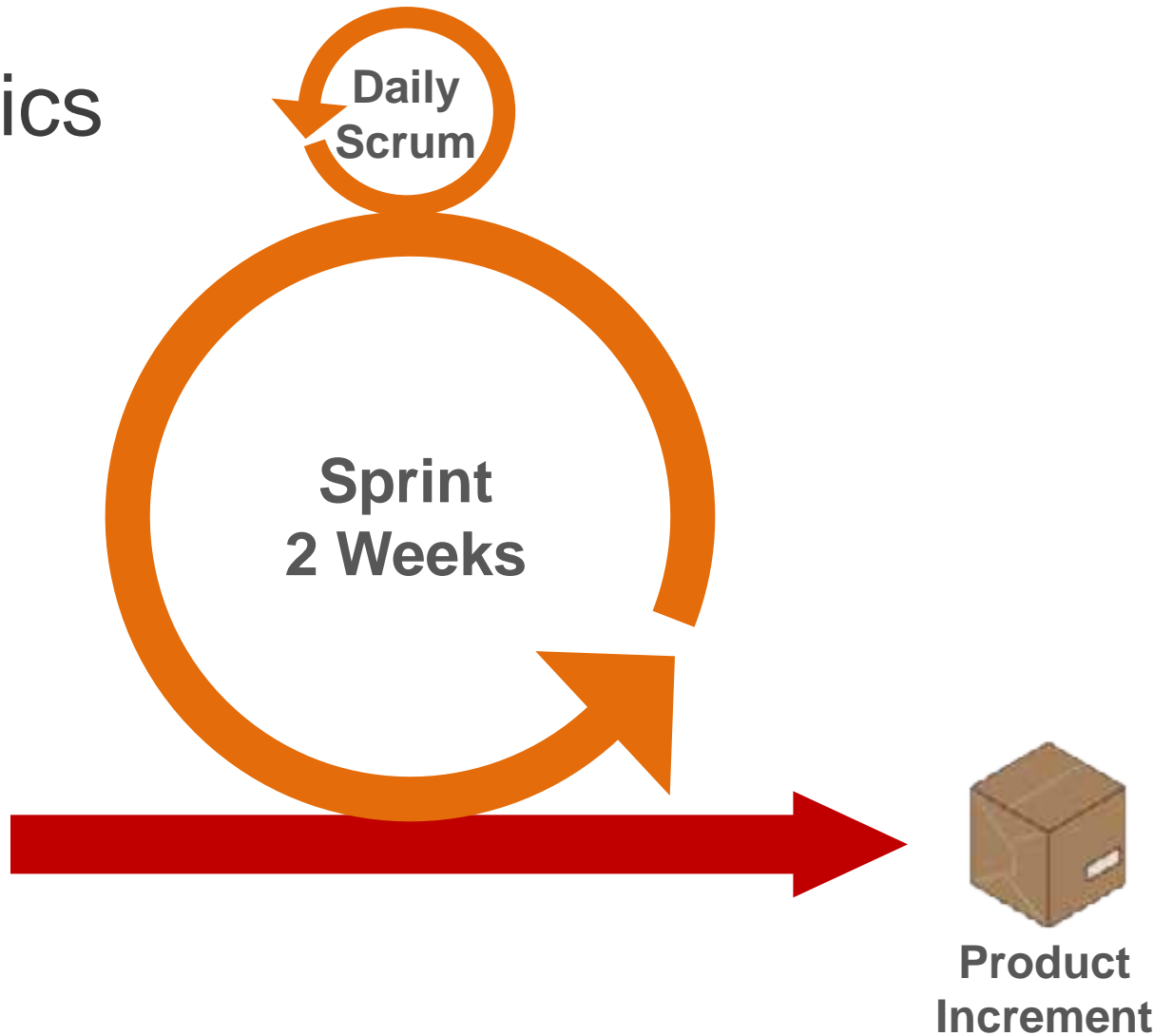


iteration mechanics



Product
Backlog

Sprint
Backlog



high quality
tested
complete
done.



release
early



release
often



receive
feedback





inspect
and
adapt



AZCC - Who's My Utility? - MAP IT

Enter an address to receive a list of Coconino Registered Utilities:

Find...

Find

INTERACTIVE UTILITY MAPS

 Electric

 Natural Gas/Propane

 Telephone

 Water/Sewer

After clicking the link you will be redirected to the Coconino County Public Utilities Department website. © 2012 Coconino County Public Utilities Department. All rights reserved. Coconino County Public Utilities Department. All rights reserved.

looking into the future



Lessons Learned

questions?



Thank you.



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