SAW

Stand-alone Application for Web GIS Configuration and Deployment

PhD. Bogdan Cheveresan
Esri Romania
Web GIS Workflow

Without SAW

Desktop GIS User

ArcGIS Server Administrator and Web GIS Programmer

End User
Web GIS Workflow

With SAW

ArcGIS Desktop User can Author Map, deploy GIS Services and Web GIS Application
What is SAW?

• An stand-alone application for creation and configuration of Web GIS Applications in no more than 5 minutes:
  – Creating tools for navigation;
  – Creating tools for Web GIS editing;
  – Creating tools for routing;
  – Creating tools for attribute querying;
  – Web data binding (Web Join between two Web GIS Services);
  – Security access of the Web GIS Application and other;

• Based on existing GIS Services
What is behind?

- SAW is a “step by step” application developed on C# technologies;
- Deployment on the IIS Service

SAW write html code

```html
<div
dojoType="dijit.form.Button"
id="zoomin" iconClass="bicZi"
onClick="inlaturaEvenimentele();
navToolbar.activate(esri.toolbars.Navigation.ZOOM_IN);"></div>
```

SAW write javascript code

```javascript
var str = new dojo.data.ItemFileReadStore({ data: dataItems }); dijit.byId("denumirebara11").store = str;map.setCursor("default");
```

SAW encryption/decryption passwords and users

```javascript
var u = ["-9r@_d-^\]4cagqug\]h[un6n_2%k._v,7p*zs?y@~7ti``","ovdq2nkc?"+p{szgf\(q2\)]7i","-_v,7p*:zs?y@~mti`"
```
Users of SAW

• ArcGIS users without programming skills;
• ArcGIS users who want to quickly deploy Web GIS Applications;
• ArcGIS Server Administrators
• WebGIS Programmers who want to start quickly a project and continuing with other Web GIS functionalities
SAW Functionalities

Map Authoring

- Based on the existing GIS Services, SAW creates Web Map:
  - Map Server Services;
  - Feature Server;
  - NA Services;
  - Open Street Map;
  - Bing Map;
  - WMT Services;
  - WM Services;
  - KML;
SAW Functionalities

GIS Services Security Access

SAW can access GIS Services through proxy server

SAW can access secured GIS Services
SAW Functionalities

**Browsing through GIS Services**

- This functionality of SAW can be used along with a Geoportal
- SAW read all the properties of the REST services
  - Extent
    - Initial or Full
  - Spatial Reference
  - Units
  - ...and other
SAW Functionalities

Basic elements of web GIS application

- With SAW basic elements can be added:
  - Tool bars
  - Measure Tool
  - Basemap Tool
  - Scale bars
  - Logo
  - Social Media
SAW Functionalities

Tools for navigation

• With SAW can be added:
  ◦ Navigation tools
  ◦ Point Coordinates
SAW Functionalities

Query Tools

Queries within range

Hierarchical queries

Ex. querying between two dates

Ex. querying on multiple categories
querying address (street/postal no)
SAW Functionalities

Web data binding

Join between two GIS Services:
- query in the feature class;
- display the data from binding table
SAW Functionalities

Routing tools

• With SAW can be created Web GIS Routing tools:
  ◦ Add Stop
  ◦ Add Barriers
  ◦ Symbolize the routes
SAW Functionalities

**Editing tools**

- With SAW can be created Web GIS Editing tools;
- With SAW can choose:
  - The feature server for editing
  - The fields of feature server for updates
SAW Functionalities

Security Access

Simple security access:
One User – One Password

Security access based on privileges
## Matrix Functionalities

<table>
<thead>
<tr>
<th>Functionalities/Versions</th>
<th>Basic Version</th>
<th>Advanced Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Feature Server</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Map Server</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>NA Server</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Open Street Map</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Bing Map</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Web Map Tile Services</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Web Map Services</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>KML</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Hyperlink</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Logo</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Add Scalebar</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create toolbars</td>
<td>Up to two</td>
<td>Up to four</td>
</tr>
<tr>
<td>Create Basemap tool</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Measure tool</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Navigation tools</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Point Coordinates</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Hierarchical Query Tools</td>
<td>Up to two criteria</td>
<td>No Limit</td>
</tr>
<tr>
<td>Create Range Query Tools</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Web data binding</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Editing Tools</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Create Routing Tools</td>
<td>Without Barriers</td>
<td>✓</td>
</tr>
<tr>
<td>Simple Security Access</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Security Privileges on Tasks</td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>Security Privileges on Groups</td>
<td></td>
<td>✓</td>
</tr>
</tbody>
</table>
SAW Availability

• Available for download from www.arcgis.ro resources portal
• Activation code required by email