

# Stream Field

Final Project Presentation  
CS 4624 Multimedia, Hypertext, and Information Access  
May 2, 2017

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# Demo



## Stream Research, Education, and Management Lab

### Definition

The project brings together scientists/educators in CALS and the greater Virginia Tech community to

<http://midches.com/images/uploads/default/demo.jpg>

# Demo (cont.)

Username:

Password:

[Log in](#)

[Create an Account](#)

## Create New Experiment

[Submit](#)

## Previous Experiments

Ordered by Most Recent

hihi : 2017-04-27 00:00:00

### Select a Date Range



[Hourly](#) ▼

### Select a Type of Data

Off

Discharge

On

Sp Condition

Off

PH

On

Dis Oxygen

Off

Turbidity

Off

Temperature

### Select a Type of Graph



Plot Line Graph



Double Y-Axis D3



Multi Y-Axis Plotly



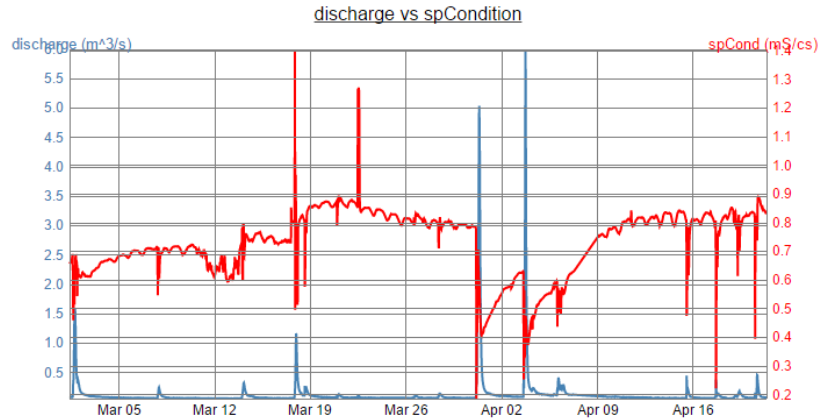
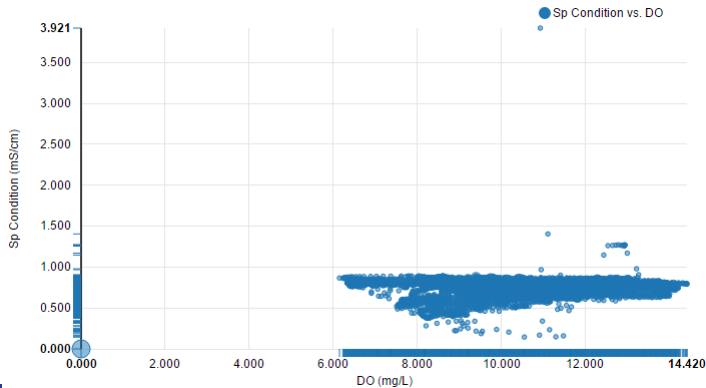
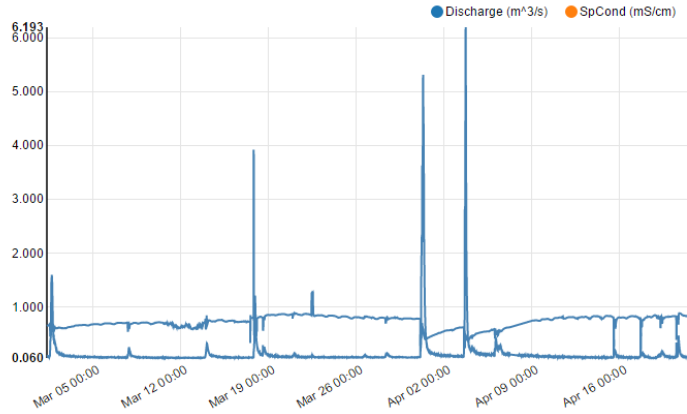
Scatter Plot

[Graph](#)

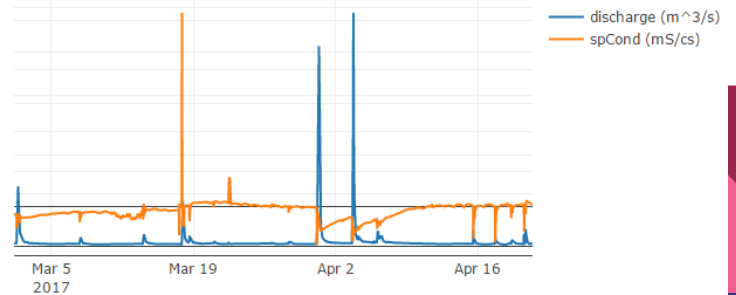
### Obtain Last Graph Query

[Save Graph](#)

# Demo (cont.)



Multi Y Graph



# Problems and Lessons Learned

License

Different data files

Understanding old code

Combining codes

Communication

date	discharge stage	DO_pct	DO	pH	spCond	temperatu	turbidity	
3/23/2013	0.120017	0.156	77.3	9.77	7.61	0.719	5.34	8.2
3/23/2013	0.118492	0.155						
3/23/2013	2:45		77.4	9.78	7.61	0.719	5.36	9.2
3/23/2013	0.116976	0.154						
3/23/2013	0.120017	0.156	77.6	9.78	7.61	0.719	5.39	8.8
3/23/2013	0.118492	0.155						
3/23/2013	3:15		77.6	9.79	7.61	0.719	5.4	8.2
3/23/2013	0.116976	0.154						
3/23/2013	0.121552	0.157	77.6	9.78	7.62	0.719	5.43	7.9

Discharge.Flow	Stage.Stage_n	Stage.Stage_m	Precip.Total.Rain_mm_Tot_HrSn	Precip.Total.Rain_mm_Tot_Smpl
m^3/s	m	m	mm	mm
0.18896651	0.196	0.2413572		0
0.19088868	0.197	0.2414479		
0.18896651	0.196	0.2409981		
0.18705401	0.195	0.2407422		

Home  
Experiments  
Logout

Select a Date Range

Select a Data Type  
 Discharge  Sp Condition  PH  
 Dis Oxygen  Turbidity  Temperature

Select a Type of Graph  
 Plot Line Graph  Double Y-Axis D3  Multi Y-Axis Plotly  Scatter Plot

Graph

Obtain Last Graph Query  
Save Graph

[View all Experiments](#)

# Future Work

- Add equations/statistical data
- Data table vs. Graphs
- Data overflow
- Implement data files onto website
- Better formatting of code

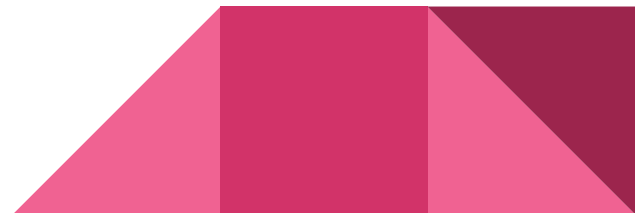
```
100 <td style="margin-left: 10px; color: gray">Obtain Last Graph Query/Id</td>
101 <button type="button" class="btn btn-default" style="margin-left: 10px; align="left" id="curr">Save Graph/Bottom</button>
102 <span id="query"> Save/Id/Query</span>
103 <br style="clear:left" />
104
105 </tbody></table>
106
107 <div id="container">
108 <div id="display_graph" title="Display Graph"></div>
109 <div id="right" title="No Condition"></div>
110 <div id="center" title="No Output"></div>
111 </div>
112 <div id="container">
113 <div id="left" title="No Input"></div>
114 <div id="right" title="No Output"></div>
115 </div>
116 </div>
117 <div id="myDiv"></div>
118 <br style="clear:left" />
119 </script>
120
121 var dateRange = $("#date").val(),
122     dateRange2 = $("#date2").val(),
123     currentGraph = "No Graph Selected",
124     dateRange = null,
125     dateRange2 = null;
126
127 var count = 0;
128
129 var parseDate = d3.time.format("%m/%d/%Y %H:%M").parse,
130     formatDate = d3.time.format("%m/%d/%Y %H:%M"),
131     bisectDate = d3.bisector(function(d) { return d.date; }).left;
132
133 //On document load, gets you date using ajax call and sends it to process data function below
134 $(document).ready(function() {
135     var t = window.location.href;
136     var t2 = t.substring(7);
137     var id = t.substring(12);
138     $.ajax({
139         type: "GET",
140         url: "C:/Users/AM/Source/repos/epid/getGraphData.php",
141         data: [t2, id],
142         success: function(data) {
143             console.log(data);
144         }
145     });
146 }
```

# Key References

**Gutierrez, Sebastian.** "D3 Tutorial Table of Contents." *DashingD3js.com*. DashingD3js.com. Web. 26 Apr. 2017.

**Perez, Fernando.** "Visualize Data, Together." *Plotly*. Plotly. Web. 26 Apr. 2017.

**Seidler, Kai.** "Apache Friends." *Apache Friends RSS*. BitRock. Web. 26 Apr. 2017.



# Acknowledgments

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