

UI Mockups v2

This iteration of the designed defines an approach for dynamic content definition resulting from a search and page template perspective. Given the large collections of scientific data, this approach provides the community an ability to search data easily and select a result display from a list of predefined templates. While the templates are relatively static within the system, appropriate members can customize and add new layout templates to meet their needs. The following sections describe the templates, search and potential data views that will be built for the user community based on [use case scenarios](#).

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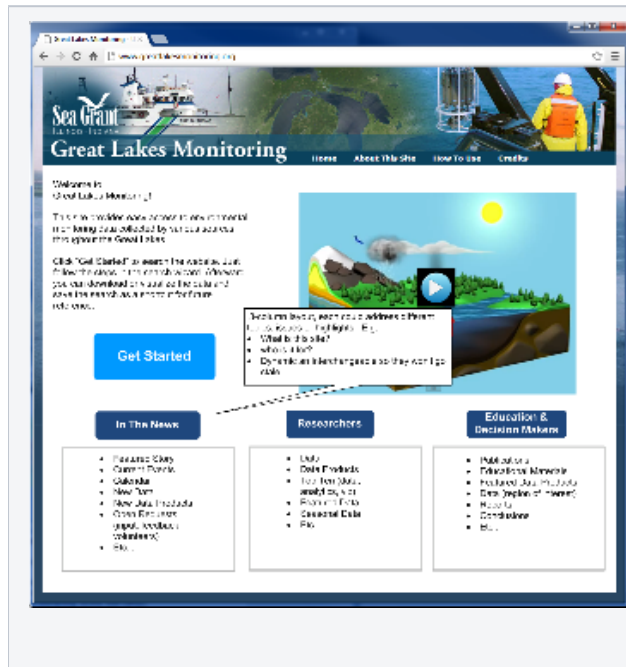
Page Templates

This approach will provide the user community a variety of templates to present their data and tell their story. The results of a search should allow users an ability to select a template and populate it with the appropriate data from the search. These pages can be use for both user specific queries or as official site pages. In the case of user specific pages we anticipate a user can save their query and reference it from a shortcut in the future. In the case of site pages, site administrators or domain experts can generate specific queries and save them as part of the site using the page templates and navigation editor. Below are a few examples of example templates.

Next steps:

- define the page atoms/elements (nav list, free txt, embedded image, graphic, etc..)
- define basic templates (main, featured, search, etc...)
- define process so users with HTML/CSS/JS experience can create new templates using tools like Dreamweaver.

Main Page



The goal of the new Home page is to provide quick access to relevant site resources. A 5 zone approach will provide:

1) An upper 2 column layout to include:

- a. Intro paragraph describing the site, the target audience with quick access to the search wizard via the "Get Started" link.
- b. A featured graphic, movie or information relevant to "What's New"

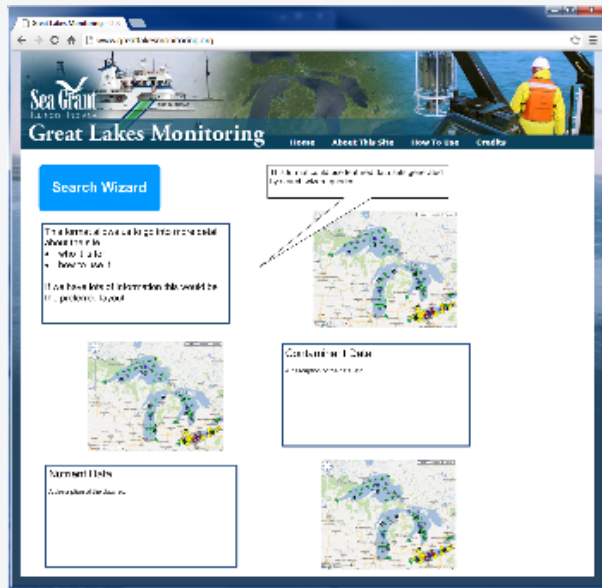
3) A lower three column layout to help the user quickly access information in specific areas or formats. These could include:

1.
 - a. For Researchers - Data, data products, top ten (data, analytics, viz), featured data, seasonal, etc...
 - b. For Education and Decision Makers - Access publications, Edu materials, data products for a specific region of interest, reports, conclusions, etc...
 - c. In the News - Current Events, calendar, new data/products, featured story, open requests (input, feedback, volunteers), etc...

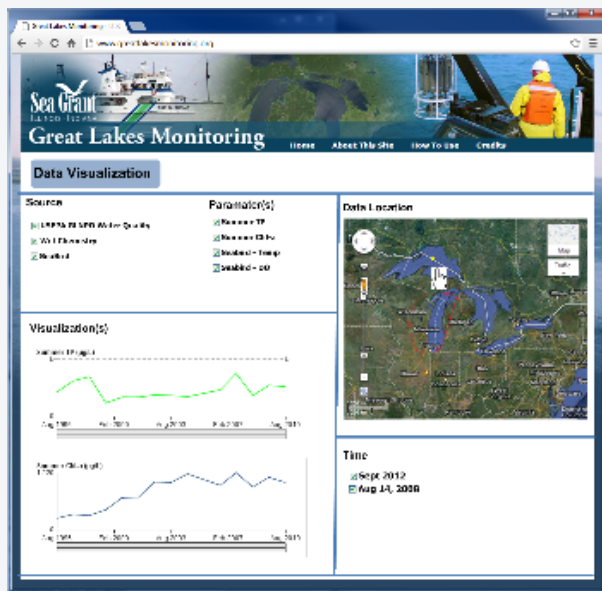
To keep the site interesting and prevent it from going stale, the data provided in each zone will need a simple 'change' interface to allow site admins to edit, add/delete content which includes the welcome paragraph, the bullet lists items/links and the featured graphic/link.

Alternate Pages

Case 1:



Case 2:



The alternate pages could provide:

1. content for the Home page links
2. an alternate main page
3. a section, collection, or hot topic main page
4. dynamic page creation from search wizard.

Case 1 provides users access to particular data collections, e.g. Contaminate or Nutrient Data for a particular region of interest.

Case 2 shows how a users search result could be used as a site reference to specific data for a particular region, time frame and data visualization type.

Since this page is a direct result of a user's search, the resultant URL can be saved and linked back to the site. These search result pages are also intended to be saved as short cuts on a user's browser or could be embedded in to other site using an <iframe> tag.

```
<iframe src="http://www.greatlakesmonitoring.org/dataSource/region/time/dataTypes/resultLayout">
<p>Your browser does not support iframes.</p>
</iframe>
```

Search Wizard

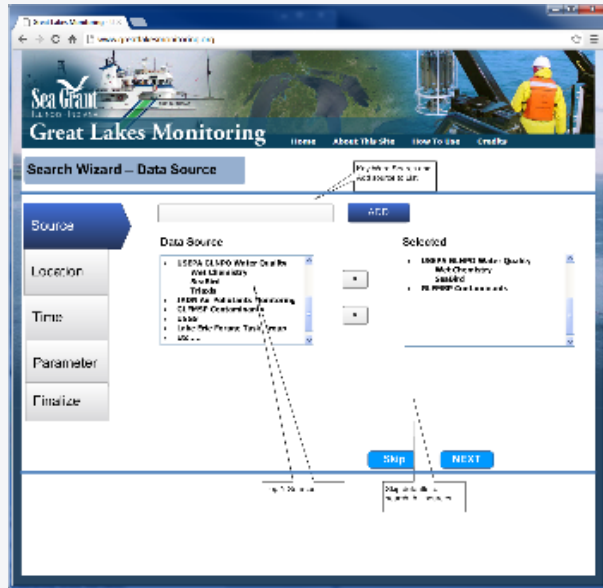
The intent of the wizard is to walk the users through each step needed to define a query. To keep the interface simple we'll provide distinct interfaces for:

- **Data Source** (EPA, USGS, NOAA, etc...)
- **Location** (Region of interest, point on map, area drawn on map, or predefined regions like Lake Michigan)
- **Time** (Start, End)
- **Parameters** (context sensitive data, specific types, data collections like nutrients, or all available data)
- **Result Output** (finalize page that provide download options (csv, json, etc...), visualization types and a URL for future reference.

The layout for the search wizard provides:

- Wizard navigation is located on on the left hand side to allow the users to easily move between each input parameter.
 - As the user defines search criteria, they appear under the respective input field allowing for quick inspection as the user moves through the wizard.
 - If no inputs are selected for an input page then the wizard assumes "all" for the respective input page (data sources, locations, times, and data types)
- As user defined search criteria, the respective inputs become context sensitive so only relevant data will appear to reduce the clutter of irrelevant data and help reduce the choice complexity for the user. For example, if the user chooses the source EPA, and Lake Michigan, only data types relevant to those search inputs are made available to search.

Data Source

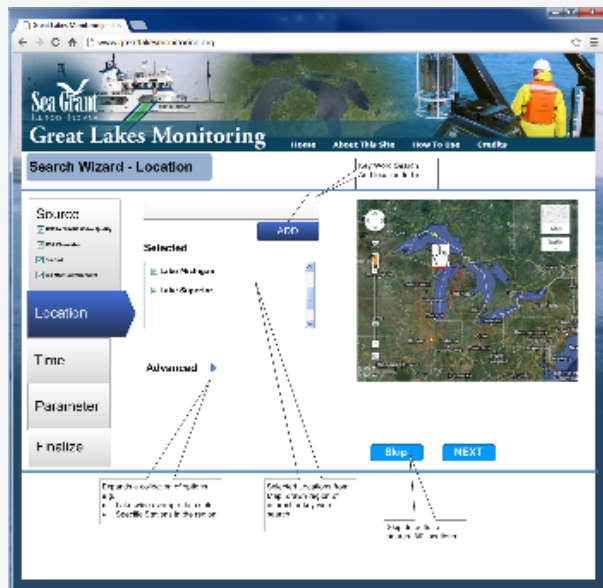


The search wizard provides the following capabilities:

Data Source

- By default all available data sources are listed in the left column
- Users can use the key word search line above to refine the list to specific sources
- Users select a source name from the left side, clicks on the right arrow key to move it to the right side "Selected" column.
- Users can also remove sources from the "Selected column" by selecting the name and clicking the left arrow key to move it back to the left column
- Users moves to the next input page by clicking Next OR by clicking on the Navigation button.
 - We also show a "Skip" button which is meant to skip the customization of the query and include ALL data sources. The name and approach need to be discussed further.
 - Button name: Skip, All Sources, All, TBD...
 - or No Button, inferring "Next" to include the selected inputs or default to all inputs for each tab (source, locations, times, types, etc...)

Location



Location can be defined by a couple of methods:

1. Key word search - for existing pre-defined regions of interest (ROIs)
2. Map Selection:
 - a. Point selection to include radius (1k, 5k, 10k)
 - b. Pre-defined map layers (e.g. Lake Michigan)
 - c. User drawn polynomial

As ROIs are defined they appear in the Selected box and can be 'unchecked' or deleted if the user wants to remove them from the search.

If a user defines a new ROI (point, polygon), they should be prompted to provide a name and in the case of a point, define a radius. These new ROIs should be saved so users can use them as future ROI reference.

Q: Who has this creation authority: Trusted Users vs. Anonymous ?
Advanced: These options would allow for additional inputs like:

- Lake wide averages
- specific stations with in the ROI
- etc....

[illegible]

1. Input field is located above each calendar to let the user define the day, month and year. This will change the calendar view to the appropriate month/year and allow the user to refine their choice from the calendar view.
 - a. The "ADD" button is not required since we're going to limit the start/stop times to one and should be changed to reflect the usage of the field, e.g. "Enter Date (DD|MM|YYYY)"
 - i. Note: We need to use a standard convention Day/Month/Year, Year/Month/Day or whatever the community prefers...
 - b. Once the date is defined the input field, the calendar should highlight it for quick visual reference.
 - c. The default for Start and Stop is all times
 - i. If no Start is define and a Stop time is defined then all available data through the stop time will included in the search
 - ii. If a Start time is define and no Stop time then all data from the define start time through the current date will be included in the search.
2. The input field, Calendar view and "Selected Start" should all be sync'd to prevent confusion between the different input and selected times.

The screenshot shows the 'Great Lakes Monitoring' Search Wizard interface. The top banner includes the 'Sea Grant' logo and a background image of a ship and a person in a safety vest. The main content area is titled 'Search Wizard - Parameters' and includes a 'Quick Search' bar, a 'Source' dropdown, a 'Location' dropdown, a 'Time' dropdown, and a 'Parameters' list. The 'Parameters' list is expanded, showing a table of parameters with columns for 'Parameter ID', 'Parameter Name', and 'Parameter Unit'. The 'Advanced' section is also visible, showing a list of parameters. The bottom of the interface has 'Skip' and 'Next' buttons.

Quick Search: an area where users can type to filter the current list or search for specific data types.

Selected: the list of specific data chosen by the user

Result Output / Finalize



This final page provides the relevant (context sensitive) options for downloading and visualizing the data.

Download: provides the relevant file formats to download the data. We anticipate, .csv, .json, .kml and others as driven by community requests

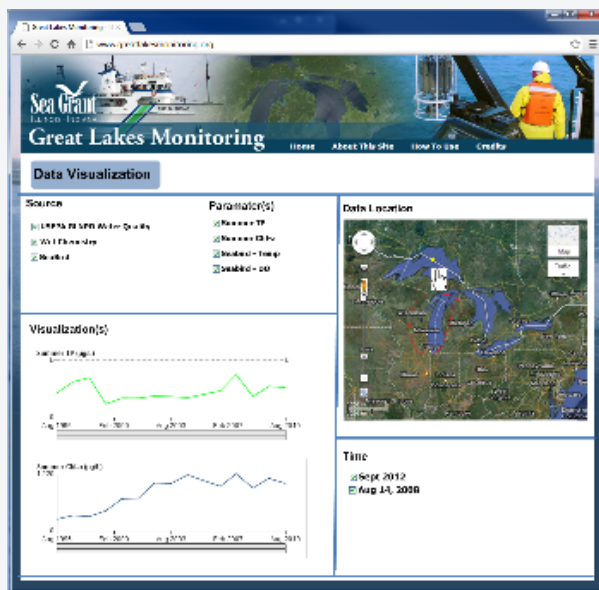
View Data: provides the users a choice about how they want to see the data. Current data views include:

- Historic Graph
- Data Range
- Depth Profile (SeaBird)
- KML on Map
- etc....

Permalink: This the URL the user can save to this page for future reference.

Discuss: When they come back in the future, can/should they be able to change any of the search parameters to generate a different result? The use case would be a quick start to explore, add, edit, delete the various options without starting a new search.

Search Result



The search result page provides a quick reference to the data, location, time and selected visualization tool.

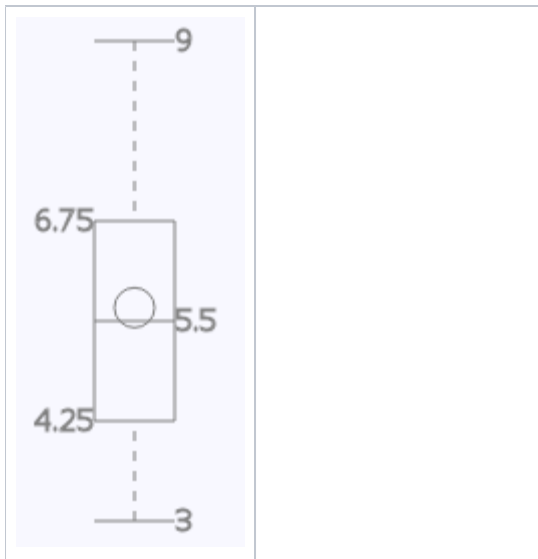
This page URL can also be saved for future reference.

Data Views

Box Whisker

The box whisker visualization is more familiar to the community and we plan to replace the current "Data Range" visualization with it for Phase II.

Box Whisker	Data Range (Quintile Plot)
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Depth Profile Visualization

The depth profile tool will provide a view to vertical column of data collected by Sea Bird. Initial mock-ups include:

