

## Morpho - Bug #400

### need graphical view of sampling layout

01/23/2002 08:18 AM - Matt Jones

<b>Status:</b>	In Progress	<b>Start date:</b>	01/23/2002
<b>Priority:</b>	Normal	<b>Due date:</b>	
<b>Assignee:</b>	Dan Higgins	<b>% Done:</b>	0%
<b>Category:</b>	morpho - general	<b>Estimated time:</b>	0.00 hour
<b>Target version:</b>	Postpone	<b>Spent time:</b>	0.00 hour
<b>Bugzilla-Id:</b>	400		
<b>Description</b>			
Sandy Andelman made the following feature request:			
<p>I wanted to relay to you a suggestion for Morpho. Based on experience with last year's set of graduate seminars, trying to work with data from the previous Waide-Willig working group, and the current seminars to date, we have found that it is IMPOSSIBLE to decide how to appropriately integrate data from multiple sources without a schematic diagram of the spatial arrangement of the sampling units.</p> <p>In other words, if we don't have a diagram the data are USELESS for integrating across scales. So right now, we are maintaining information on the spatial sampling design separately, which is ok for now, but if we want Morpho to be a tool that is used by ecologists, it will need to have this capability.</p> <p>Currently, Morpho does not have the capability to incorporate this type of information. I would like to suggest that this be made a high priority. Given the increasing emphasis of ecologists on spatial pattern, this seems like an essential feature.</p> <p>Please let me know what you think of this idea.</p>			
<b>Related issues:</b>			
Blocks EML - Bug #450: entityType and format		<b>Resolved</b>	<b>03/27/2002</b>

## History

### #1 - 01/23/2002 08:24 AM - Matt Jones

I agree that the sampling design information is critical to any sort of integration effort. I would argue, however, that it is more than just the spatial layout -- it should include all of the other aspect of the sampling design as well, such as frequency. That said, the spatial arrangement of units is clearly critical.

The question then becomes, how do we represent this information. Right now it is just part of the eml-protocol and eml-project modules, in that you are supposed to provide textual descriptions of all of the relevant methods and design. If we wanted to include a diagram, where would we get it? We could either import and display one that was made in another application, or we could modify morpho to allow users to create diagrams. The latter is exceedingly difficult to do well, and we would really be reinventing the wheel, although using an external app has the disadvantage of not being an integrated process.

Next comes the question of the format of a diagram. The idea behind EML is that it is just text, and therefore works very well in a variety of situations, and is likely to be readable over the long term. Most existing image formats like PNG and GIF are binary, and therefore require special software to display them. As such they are much less portable than text. And they would be hard to integrate into EML. We could use SVG (Scalable Vector Graphics), which is open, and text based, but somewhat new, so there are few renderers.

Finally, because this is such critical information, we really need to be able to machine parse it to make use of it in more advanced tools. Images don't cut it in this regard. What we REALLY need is a formal, parsable way of describing the sampling design that we can both transform into an image for display and that

we can use for reasoning about the data for integration.

Overall, this is an incredibly important, and incredibly difficult issue. I really don't know what the best solution is at this time.

**#2 - 03/27/2002 09:37 AM - Dan Higgins**

Morpho will now display image files saved as data in a data package. Simply save a GIF or JPEG image file (the formats used used for images in web pages) and set the format in the eml-physical file to include the text "image", "Image", "IMAGE", "jpeg", "Jpeg", "JPEG", "gif", "Gif", "GIF", "jpg", or "JPG" and Morpho will recognize the data as an image and display it instead of a table when "Show/Edit" button is clicked.

This allows any image to be included as part of a datapackage.

**#3 - 03/27/2002 10:30 AM - Matt Jones**

Hi Dan,  
Sounds like great progress. I've reopened the bug to try and deal with a minor additional issue. The "format" of the image should included recognition of MIME types for standard image formats, e.g., "image/gif", and "image/jpeg", etc. These would be completely standard and unambiguous and are preferred over random strings like "gif" or "jpeg". Morpho should generate mime types when adding an image entity. Also need to think about how to set the "other-entity/entityType" field as well.

**#4 - 03/27/2013 02:14 PM - Redmine Admin**

Original Bugzilla ID was 400