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# To-Do List & Bugs

### Default open/close functions - MC implemented

To execute some fancier multiple-UNO tweening functions, I have the need for 2 functions that work similarly to the 2 functions we have now: defaultHide() and defaultShow(). The new functions would encapsulate the code that is run when you click on an UNO to open or close it:

defautlOpen(unoID)

defualtClose(unoID)

These functions would do everything a click on and UNO would do, ***except*** they would NOT run the showing/hiding code: either default function, or the custom openFunction / closeFunction from the DB. Or, to put it another way, to ‘manually’ duplicate clicking an UNO open (and instead of running an open=unoID URL command - which won’t work for what I need to do), you could run:

defaultOpen(unoID);

defaultShow(unoID);

Which together would run all the code that’s normally run on a default click-open.

**Code to add - from demo/cf/bundle.js: done**

/\*\*

\* These functions are used to 'manually' open/close show/hide UNOs - used primarily by custom open/close tweening functions

\* The open/closeOnly functions do what the default open/close function does except they do NOT run the show/hide function

\*\*/

function openOnly(unoId) {

var wrappedGroup = getWrapper(unoId);

wrappedGroup.setThisToOpenOnly();

};

function closeOnly(unoId) {

var wrappedGroup = getWrapper(unoId);

wrappedGroup.setThisToCloseOnly();

};

function parentOpenAllChildren(unoId) {

var wrappedGroup = getWrapper(unoId);

wrappedGroup.parentOpenAllChildren();

};

function parentCloseAllChildren(unoId) {

var wrappedGroup = getWrapper(unoId);

wrappedGroup.parentCloseAllChildren();

};

--------------------------------

BaseIdClass.prototype.setThisToOpenOnly = function () {

if (this.dddGIdObject && /ddd/.test(this.dddGIdObject.mytype)) {

this.dddGIdObject ? this.dddGIdObject.setThisToOpenOnly() : {};

}

};

BaseIdClass.prototype.setThisToCloseOnly = function () {

if (this.dddGIdObject && /ddd/.test(this.dddGIdObject.mytype)) {

this.dddGIdObject ? this.dddGIdObject.setThisToCloseOnly() : {};

}

};

--------------------------------

DddClass.prototype.setThisToOpenOnly = function () {

if (this.isOpen() == false || this.isOff()) {

addClass(this.gIdObject, "open");

addClass(this.vvvGIdObject.gIdObject, "open");

addClass(this.xxxGIdObject.gIdObject, "open");

removeClass(this.gIdObject, "close");

removeClass(this.vvvGIdObject.gIdObject, "close");

removeClass(this.xxxGIdObject.gIdObject, "close");

this.processURLCommandsForOnURLetc(this.openURL);

}

//this.setThisToOn();

if (!$(this.gIdObject).hasClass("lockOnOff")) {

addClass(this.gIdObject, "on");

removeClass(this.gIdObject, "off");

}

this.resetOnOff();

};

DddClass.prototype.setThisToCloseOnly = function () {

if (this.isClose() == false) {

//this.isThisGroupOpen = false;

addClass(this.gIdObject, "close");

removeClass(this.gIdObject, "open");

addClass(this.vvvGIdObject.gIdObject, "close");

addClass(this.xxxGIdObject.gIdObject, "close");

removeClass(this.vvvGIdObject.gIdObject, "open");

removeClass(this.xxxGIdObject.gIdObject, "open");

// this.setThisToOn(); why do this?

this.resetOnOff();

this.processURLCommandsForOnURLetc(this.closeURL);

}

};

--------------------------------------

var baseIdClass = {

...

openOnly: openOnly,

closeOnly: closeOnly,

parentOpenAllChildren: parentOpenAllChildren,

parentCloseAllChildren: parentCloseAllChildren,

### hoverAction + custom function issues - hold: MC investigating

See: <https://gsap.systemsagency.org/demo/cf/drawtest.html>

B6: hoverAction = both

B7: hoverAction = open

B7: hoverAction = close

* For **B6,** with a hoverAction value of ‘both’, the custom open function is run on a hover-on. But if you do an immediate hover-on/off B6, the custom close function is NOT being triggered on the hover-off, If you click on B6 to open it, and, then hover-on it to close it, the custom close function does get triggered.
* For **B7,** with a hoverAction value of ‘open’, the custom close function is not triggered on a hover off.
* For **B8,** with a hoverAction value of ‘close’, a hover-off makes the C things appear.

I think these issues are due to a default open/close function (rather than the custom one) being run on a hover-off events.

### Export Mongo Database to Excel

Now that we have map-form working to modify the DB - we need to complete the spreadsheet roundtrip. And once we can collect survey data and comments, we’ll need the ability to download that data - per user - to a spreadsheet.

See:

<https://github.com/Moblox/mongo-xlsx>

<http://razorsql.com/features/mongodb_export_tool.html>

#### **Ready for testing here** (I spend little time on the design of this html page as you can tell): - Gets the job done!

<https://gsap.systemsagency.org/mongoToXlsx> You have to type in a collection name, such as radial\_master

**To Do:** LM to document how the spreadsheet download is set up.

See documentation here: <https://docs.google.com/document/d/1S96eKGRuMTMOTlJ_hbuhQ9kccirjvhZDOYIauS6ddOA/edit#heading=h.yo39d9nvxbub>

**To Do:** LM to write code to clean up left-over xlsx files. **done**

**To Do:** LM to get the order of the fields in the up/down loaded

spreadsheets to match. **done**

**To Do:** LM to fix up package.json to use updated my version of xlsx-to-json

**To Do:** LM to stop users from downloading non-map collections, such as user collections to xlsx. **done**

**To Do:** LM to not allow someone to use the user collection in a map’s json file under masterDB field or overrideDB field **done**

-----------------------------

The download works! A few questions / thoughts:

* Where is the mongoToXlsx page?  
   /var/www/gsap/views/admin/db.hbs
* It’s important that the order of the fields in the downloaded spreadsheet matches the order of the uploaded spreadsheet.
* Is downloading restricted to to particular users? At a minimum it should be restricted to Admins. But we should also permit downloads per-user per-collection i.e. users must be given permission to download specific collections (see the new item below).

### Verify that uploading a spreadsheet is secure.

Looking at the code, I see no security on uploading a spreadsheet to the db. Also the collection security needs to be implemented.

### User access to DB editing and downloading.

Particular users should be given access to edit / download particular collections, e.g. if they have permission set to something like: ‘Edit dbName\_override’ it means they can use the map-form and download the spreadsheet for dbName\_override.

Note that it’s important that we’re able to grant permissions at the level of a particular collection. For example, one of the reasons we have a master and override database is so that (less qualified) people can experiment with the override database, without corrupting the master DB.

### map-form is deleting all DB items not in the map-form

When you submit a map-form, it replaces the DB info with *only* the contents of the map-form fields. All other DB fields are lost.

With the free-form DB structure we have no way of know what the designer may put the DB, e.g. all kinds of variables that might be used by custom functions etc.. So when the mapform is submitted, it should change the map form fields, but leave all other DB fields intact.

### edit=unoID command

It addition to the mapform=true method of editing the DB, it would be useful to have a **edit=unoID** URL command that would load the info-pane with the map-form for the UNO.

I could then add an ‘Edit’ menu item to the context (right-click) menu as a means of editing the UNO’s DB info – without having to switch into map-form editing mode.

Also, I think you had suggested that you might be able to get the map to update to the new DB info after hitting ‘Submit’ - without having to refresh the page. That would be nice to have, if it’s not too difficult to do.

### on/off open/close custom functions - MC still diagnosing

I.e.: onFunction offFunction openFunction closeFunction

Current test file: [https://gsap.systemsagency.org/demo/cf/radial.html](https://gsap.systemsagency.org/demo/cf/radial.html#)

The test file is working pretty well. There are a couple of issues I’ve noticed:

I had to create a split version of defaultShowHide. In the test code

/cf/bundle2.js

You’ll see that I’ve added 2 new functions:

defaultShow(unoID)

defaultHide(unoID)

This was needed because, in the openFunction (e.g. fadeScaleOpen), the function

baseIdClass.showVVV(unoID);

Was not working properly, so I replaced it:

// baseIdClass.showVVV(unoID);

baseIdClass.defaultShow(unoID);

Which does work.

For the closeFunction (e.g. fadeScaleClose), defaultHide didn’t work right, so I still use:

baseIdClass.showXXX(unoID);

// baseIdClass.defaultHide(unoID);

For both the open/closeFunctions, when a tween is finished, I’m using:

onComplete: baseIdClass.defaultShowHide

For thoroughness - and because it seems works.

***Why*** does the code above work? That I don’t really understand. For example, what exactly the differences are between showVVV(unoID) and defaultShow(unoID).

It’s possible you can see what going on and come up with a better solution. But what’s there seems to work pretty robustly. The only problems I’ve seen is with openall and the on/off functions - see below.

**• Openall Issues:**

The only glitches I’ve noticed are with open/closeall. open/closeall works mostly ok, but with these exceptions:

* In the test file, option-click on A to openall, then option-click on A again to closeall, the click on A to open it: the xxx-groups do not appear.
* In the test file, option-click on A to openall, thenclick on A again to close, then option-click on A again (essential doing a *second* openall): the console will register errors (from the tweening) and the map-objects are now misplaced (this seems to be a case of the bug with opening things that are already open.)

(I am way too scared to try and and trace through what happens on an open/closeall command ;-)

**• URL Command Issues**

Clicking UNOs open/closed works well, but there are issues with using URL commands:

1. non +++ *close* links (e.g. in the top of the story pane) cause objects to loose their position information and thus appear in odd places.
2. +++ links that **open** UNOs that aren’t already **on**
3. Opening things that are already open

Without tracing this through, the problem with opening things that aren’t on is behaving like precedence problem: when the codes gets an on=thisUNO URL command, we need to insure that the ‘turn-on’ code runs *first* ( display: none gets removed, so the UNO becomes ‘visible’ to the code ), and *then* we run the ‘open-up’ code.

**• On/Off Functions? - are these needed? Don’t do anything with them for now.**

Not sure if the on/off functions have been coded / are working? LM to verify that the onFunction offFunciton code is not implemented (just so we can be sure it’s not interfering with anything.

In test file’s DB, the onFunction and offFunction are set to fadeOn and fadeOff. But if you put a breakpoint in /cf/customstuff.js in fadeOn & fadeOff, those functions are never run.

And the links in the story-pane under **Test Independent On/Off** do not work as expected.

### function getDatabaseAndInfoFile() asynchronous problems

ajax calls in this function need to use promises to make them asynchronous

### (Dynamically) Load Multiple SVG files ?

This might be useful at some point **- not a priority right now**.

But how difficult would it be to load multiple SVG files? They would need to be positioned at some place within the ‘master’ file. We can assume they will all use the same DB as specified in the startup JSON file.

Dynamically loading files could be done using a URL command (?):

loadSVG=filename, xpos, ypos

For larger maps this could greatly reduce the initial load / startup time as we could begin with a simple map, and then, once the initial map is loaded, we can load-up more detailed maps in the background.

This would also allow us to ‘modularize’ map creation: complex maps could be broken up into sub-maps that could be worked on / updated asynchronously by different teams.

### Authorizing /authorized Users

LM has partially/mostly implemented.

We need a mechanism for approving / denying user accounts to people registering for /authorized access. And create different access permissions for different folders within /authorized - and different login windows for different folders.

Access simple dashboard site: <https://gsap.systemsagency.org/admin> - it only admins who get to open this page.

It is supposed to be, but I commented it out so I could log in to give myself admin so I could log in!! There is a fix for that for the first person who is admin, but it may take a couple of hours. Now someone is admin I can put back in the code that enforces admins to only access the admin page.

Permissions and folders are comma-separated. Right now the only permission that has an effect is *admin*.

Still not implemented: add.

### Forms

Forms enable maps to be used as a tool to collect input from (registered) users. A form scheme would involve:

1. **Registering** users, setting them up in the Mongo DB, and determining who does or doesn’t have access to form input.   
     
   We’ll need an admin screen to set these configurations/privileges for different users to access different parts of the site.
2. **The Form**: Creating HTML / Jquery form pages to go in the info-pane (we have this working more-or-less already).   
     
   Easy form generation for surveys etc. - use something like?:  
   <https://www.npmjs.com/package/form-builder>  
   <https://www.npmjs.com/package/forms-generator>
3. **Connecting** the form to the DB:   
   **A. Loading** the form: when the form is loaded, any existing user input should be loaded from the DB into the form: so the user can see what they’ve previously entered, and edit as needed.  
   **B.** **Editing -** we have fixed the keyboard focus issue; differentiating when we’re in a *text-input box* from *everything else.*  
   **C. Submission**: The user’s input should be submitted/stored to the DB - linked to the user’s registration.
4. **Exporting** the input data - export & download the form data in Excel format. Probably as user-per-row, input-item-per-column.

I think that’s about it.

### Survey Forms

We’ll need to set up a new DB collection to hold the answers - a DB field (column) for each answer, and a row for each user.

We specify the database collection to use …. where?

And then download the survey DB collection to excel format. See the item below **Export Mongo Database to Excel**

.

### Database Editing Forms

As a first test of the form-input code, we should set up a form to edit the DB entries for UNOs.

To enable for editing, we set up a different .html and .json page that allow editing by setting a flag in the .json file such as:

"editing": "true",

If the ‘editing’ flag is set to true, then clicking on (but not hovering on) an UNO will load the info-pane with the DB form populated with the DB info for that UNO.

To turn on or off map db editing when a UNO is clicked, insert this command in the URL:

mapform=true

mapform=false

**TODO:**

1. ~~Put this on gsap systemsagency.org~~
2. ~~Set a default database to populate -- override~~
3. ~~text boxes are not being populated. Maybe because they are markup?~~
4. ~~This loads the override version of the database by default. If the override database has not been populated, then no error is returned. Should then try for the master database.~~
5. ~~need feedback when db is finished being updated – Done~~
6. ~~Form is too long. Need to scroll to click on submit. Maybe put submit on top (also?).~~
7. ~~Changes to checkboxes are not being updated in database.After making the update, need to update the database var that is in memory, though there are some other vars that are not changed. The user will need to refresh the screen to see the effects of changing the database.~~
8. ~~Hitting escape while the db form has focus should close the form. Now one must be focused in a text box first before pressing escape. Also make a close button.~~
9. ~~Put form in the info-pane.~~
10. ~~If clickAction is set to gotoz then this feature will not work. Make it always work, even when clicking on a closed uno that is on.~~
11. Some uno’s do not have click turned on in the database. But we still want to click-to-edit to work when mapform = true. See:  
    <https://gsap.systemsagency.org/demo/v2/radial2.html> - B3 has clickAction set to ‘none’.
12. ~~mapform=false probably does not turn this feature off yet. Fix it.~~
13. At some point only authorized users should be able to use this feature - add ‘edit’ level of access - specifying which DBs they can edit.
14. Create an exportSpread.html for downloading the DB to a spreadsheet.
15. Set up the code / process for creating & executing survey forms.
16. ~~Add a form-input to edit the UNOs class(s) - if we add UNO classes to the DB.~~
17. ~~Remove~~ **~~URL \_target~~** ~~from the form - it’s not a DB thing anymore as everything is handled by the double click function + params.~~

### Comment Form - TBDkey-click

A standard commenting feature will allow users to submit comments on a per-UNO basis.

If enabled for the particular map, a key-click (the key TBD) on an UNO will bring up a single text-box form in the info pane. On submitting, the contents of the text box will be stored to a map-comments DB with input per-user / per-uno.

If the user has previously input something for the c-clicked UNO, the the text-box will be filled with that content for the user to edit.

Eventually we can expand this feature to a true multi-user comments section

### Pan Limits

Pan limits currently removed - and animation back on.

Ask stack overflow - to collaboratively let them do the work for us

For the moment, let’s put the panzoom animation back in, even if we have to remove the pan limits.

Allow the gutter values to be set in the map preferences.json file again.

----------------------

Notes: Some links I found about svg-pan-zoom.js:

Someone with a similar question. Developer said it can’t be done, though I think maybe it can: <http://stackoverflow.com/questions/29180671/animating-svg-pan-when-manually-setting-pan-x-and-pan-y>

Current discussions on the svg-pan-zoom library:

<https://github.com/ariutta/svg-pan-zoom/issues>

Add a new global variables:

var panXmin, panXmax;

var panYmin, panYmax;

That can optionally be changed in the JSON file, e.g.:

"panXmin": "0",

"panXmax": "3000",

"panYmin": "0",

"panXmax": "2000"

On loading the map, the default limits should be set to the bounds of the svg group ‘MapSize’ (this is a mandatory layer in all maps which sets the full map size).

bbox = document.getElementById("MapSize").getBBox();

panXmin = bbox.x;

panXmax = bbox.width;

panYmin = bbox.y;

panYmax = bbox.height;

Then, whenever we get pan values we need to check them before doing the pan:

beforePan = function(oldPan, newPan) {

if ( oldPan.x < panXmin ) { newPan.x = panXmin; }

else if ( oldPan.x > panXmax ) { newPan.x = panXmax; }

else { newPan.x = oldPan.x }

if ( oldPan.y < panYmin ) { newPan.Y = panYmin; }

else if ( oldPan.y > panYmax ) { newPan.y = panYmax; }

else { newPan.y = oldPan.y }

return newPan

}

### Custom on/off open/close functions

Add on/off custom functions.

-----------------

**Functions to set UNO state & handle opacity**

Test file: <https://gsap.systemsagency.org/demo/cf/radial.html>

The defaultShowHide does not work in the fade function - for the reasons I outlined - it's clear in this version when opening B1: the xxx disappears immediately instead of fading closed.

The goal is to allow both xxx and vvv to show until the tweening finishes - at which point the xxx or vvv would be hidden.

These functions should split the defaultShowHide into 4 parts - 2 that show the xxx or vvv (of unoID) and 2 that hide the xxx or vvv (of unoID). The 4 *parts should do what defaultShowHide normally does* - switching all the things within unoID’s vvv and xxx as per usual.

function showXXX(unoID) { }

function showVVV(unoID) { }

function hideXXX(unoID) { }

function hideVVV(unoID) { }

And actually …. we could rely on the state of the UNO to dictate showing/hiding, so we could potentially just split defaultShowHide into just 2 functions:

doXXX(unoID)

doVVV(unoID)

The functions would look to the state of the UNO - open or closed - to decide if it should show or hide the xxx (in doXXX) or show or hide the vvv (in doVVV).

--------------------

Radial test folder / file is here:

<https://gsap.systemsagency.org/demo/cf/radial.html>

The spreadsheet with the on/off/open/close functions defined is in the folder: Radial4cf.xlsx.

The custom functions have code stubs in customstuff.js, but they’re not finished. I realized that I’m not sure how to set the tween selectors, or walk the child hierarchy (it that’s needed?), now that we’re not using CSS to do that for us. And you’ll see that we may want to use the default functions within the custom functions.

**API for showing / hiding**

To call the API function that will show or hide artwork, do this:

1. unoClass = idiagramSvg.idGroupObject[id];//id is the uno id
2. unoClass.defaultShowHide();

In case you are interested, here is the code for defaultShowHide():

BaseIdClass.prototype.defaultShowHide = function() {

this.isOn() ? this.show() : this.hide();

//find grabs all descendants that are of type

//ddd,vvv,ooo,xxx,wrapInDb,wrapNotDb

$(this.gIdObject).find("g[mytype]").each(function() {

if ($(this).hasClass("on")) {

addClass(this, "lm-show"); //the “lm-show” because “show” is already used

removeClass(this, "hide");

}

else {

addClass(this, "hide");

removeClass(this, "lm-show");

}

}); };

**Custom Function Syntax**

Should use the URL command syntax, e.g.:

fadeOn=’@A’,1.5

Or use the function can do it’s own parsing by grabbing the new variable in selectorAndResultArray: fullParameterString.

### Code [Documentation](#_4lx8u7us29xu)!

LM and MC keep expanding / editing - **Documentation Doc**

How / what is used for this layout ?

<https://docs.kumu.io>

Bootstrap

## Tweening: making it useable

The items below marked **Tweening** are a set of things that all need to be implemented to make the tweening functions easily used in the map interactivity.

### Tweening: Relative Tweening Issues

Unless we can figure out how to stop and reverse relative tweens in mid-tween…

**The problem:** if a relative tween is interrupted in mid-tween, the relative values will now be in error and all subsequent relative tweens will be in error. For tween functions that use *absolute* variables, there may be no problem.

**The solution(?):** I was thinking that the solution would be to prevent any pointer events until the tween finished, but it might be much better to instead force any relative tweens that have started to finish before they’re stopped or tweened again.

(see http://greensock.com/timelinelite)

Before a tween is started (or stopped) we need to check to see if any of the objects being tweened (remeber there my be multiple selectors) is already being tweened: <http://greensock.com/docs/#/HTML5/GSAP/TweenMax/isTweening/>

If any of the selectors are in motion, then we cue-up the new tween(s) ( there may be multiple tweens triggered on an object) to execute, in order, when the previous tween finishes (using promises?) .

---------

**Thinking out loud:**

Ugh - the possibility of having multiple / nested tweens running can get really really ugly. I think the only viable solution will be prevent *any* mouse interactions while *any* relative tweening is happening. At that start of any tween function that changes things *relative,* set:

. ooo ( pointer-events: none; };

And the onComplete function will check:

If ( all tweening has stopped ) (

. ooo ( pointer-events: all; };

}

Then we’d need to ‘manually’ determine if there’s been a hover-off the UNO while it was being ignored.

Or perhaps we only need to ignore mouseleave events for that UNO’s ooo ? That way we could still process click events.

Or maybe we leave mouse events on, but only process the mouse-leave / mouse-enter events for that UNO if all tweening for that UNO has finished ?

**But** we can’t have pointer events on for any UNOs that are tweening - and an UNO could have children that could be triggered to tween. Or the openURL / closeURL could set other things tweening.

So we’re back to: if( anything is tweening) { no pointer events allowed }

During on/off tweens, pointer events should be none.

Another solution is just to ensure that the tween durations is always less than the JSON show/hide delays.

### Tweening: Folding Issues

**Note: these issues may be fixed by implementing the things above.**

I’ve put together a quick test of the ‘folding’ the maps (like ‘accordoning’ in html). The Arcadis ACF map is a good candidate for applying this kind of folding.

Putting GSAP move commands in the openURL, and closeURL, fields of the DB make this very easy to accomplish. However, to work properly it requires that hover/click events be handled perfectly - and we don’t quite have perfection yet.

Have a look at:

[**https://gsap.systemsagency.org/demo/fold/fold2.html**](https://gsap.systemsagency.org/demo/fold/fold2.html)

This has "hoverOpenClose": false, so that we get no hover events. The basics of it work, but there are 2 issues:

1 - if you click on something that is already open/closed it will keep firing the openURL or closeURL - and the UNOs will get moved out of place. To fix this we just need **fix up the code so the open/close URLs only get fired once on new open/closes**.

2 - if you click on something while the move tween is still moving, the GSAP records the relative position of the UNOs at that moment, so the relative positions get messed up. The solution to this (and other problems) would be to **set a promise on all GSAP tweens, and prevent events until they finish** (see the other issues below).

[**https://gsap.systemsagency.org/demo/fold/fold.html**](https://gsap.systemsagency.org/demo/fold/fold2.html)

In this test we have "hoverOpenClose": true, so we get hover events. But I have the tween duration set to 500ms, and the JSON tooltip delays set to 520ms - to prevent hovers until the tween has finished. But you’ll see that it’s still not hard to confuse the positions.

[**https://gsap.systemsagency.org/demo/fold3/fold.html**](https://gsap.systemsagency.org/demo/fold/fold2.html)

Same as above, but the JSON tooltip delays are set to 0 - and all hell breaks out. This is where careful application of promises might prevent total chaos.

### ‘all’ Command Issues

**Documentation:**

The ‘all=’ command goes through the list of all the UNOs in the SVG file and sets each, individually, to on, off, open, or close.

It does ***not*** follow the parent-child on/off open/close hierarchy

It does ***not*** execute any onXXX commands from the database (to prevent any conflicting commands that might be contained therein).

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**Address Bar**: for all ‘all’ commands, the URL is not properly updated:

* all=on/open commands are not removed when an all=off/close command is issued. - WORKS
* all=off/close commands show up in address bar (they never should).
* Duplicates are not removed. - WORKS

**Restults:** The results of the commands seem to vary based on which map is being used:

<http://45.55.23.31:3000/Arcadis/arcwayv1.html>

?+++&all=on - works

?+++&all=off - works

?+++&all=open - works

?+++&all=close - works

<http://45.55.23.31:3000/demo/radial.html> - after removing all DB onXXX commands

?+++&all=on - works

?+++&all=off - works

?+++&all=open - works fine in <http://45.55.23.31:3000/demo/radial.html> but not in <https://idiagram.com/arcadis/arcwayv1.html>

?+++&all=close - works

* **Serverless Packaging**

What’s involved in packaging a map into a stand-alone thing that can be thrown onto any server?? We’re going to need this sooner or later…

Could/should we use: <http://electron.atom.io/>

Perhaps ‘packaging’ should be more like a standalone desktop app:

<http://tutorialzine.com/2015/12/creating-your-first-desktop-app-with-html-js-and-electron/>

The list of options in this thread <http://stackoverflow.com/questions/6834537/packaging-a-node-js-webapp-as-a-normal-desktop-app>

Or <http://enclosejs.com>

We don’t necessarily need it to be an off-line desktop app. However the advantage of the app would be that it takes browser dependency (and internet connectivity) out of the equation – as long as the embedded Chromium browser works well.

------------

**LM says:** With all of these extra files that we pull in -- they will need to be referenced by the full url, not just a relative path -- like the info pane files and the story panes files. Also the image files including the svg files. The data in the configuration json file (which has same name as the html file) will need to have the data show up in the html file instead. The /js/bundle.js will need to change to the full url address, like <https://idiagram.org/js/bundle.js>

### Supporting Mobile Devices - Ready for testing

With Hammer included, on an ipad, gestures do not work properly.

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Getting it working - even if slow - on iOS and Android devices.

Using <http://hammerjs.github.io> ?

Hammer seems like it should be easy to try out:

<http://hammerjs.github.io/getting-started/>

### User Controls / Preferences - saved to JSON file

The initial / defaults for these variables can be set in startup.html / idiagram.js - hardcoded as they are now. But IF there there is a preferences JSON file, and IF that file has an entry for the variable, then the hard-coded value will be replaced by the value from the JSON file.

Things might be changed on a per-map basis, and/or that user may want to change - and should be saved locally to a preferences file/cookie:

* Zoom sensitivity **- Working**
* minZoom & maxZoom **- Working**
* pan/zoom tween duration **- Working**
* Pan limits - partially working

For possible future implementation:

* Search function
* Playback Volume
* Playback speed
* Animation (turn off for slower hardware)
* Auto On/Open by Zoom - enable/disable

They’ll need to be read/written to a cookie when the page is loaded, or anytime the user changes them.

<http://www.w3schools.com/js/js_cookies.asp>

### Qtip2 Positioning Error

The tooltip shifts with zoom. Rather than try a kludgy work-around, I think we should see if we can find a solution by asking on the Qtip2 forum. Craig Thompson - the author - seems pretty active on helping solve problems. We’d probably need a CodePen with simple demo of the problem: a simple SVG with svg-pan-zoom and Qtip2 running.

In most cases it's OK for the tooltip to be positioned on the ooo-group. But it is possible for the ooo, and ccc to be different locations/sizes, so ideally the code should locate to ooo or ccc; whichever is visible.

### Search Feature

To aid users in finding things in complicated / data-rich maps (e.g. the Arcadis map), we should add a search feature.

**Accessing** - the ‘s’ key loads the search dialog - including the last search results - into the info-pane. Or a URL command can be used, info=search.html

**Searching -** user enters a search term, on submission we do a text search of the DB: title, shortDescription, and longDescription.

**Results** - for any hits on an UNO, we return a list of links to the search dialog: gotoz=uinoid. And we save those results (as a cookie?) - so they will be loaded with the search dialog the next time the search feature is trigged.

Note that the gotoz=unoid will probably replace the contents of the info-pane with the UNOs longDescription, so it’s important to easily get back to the over-written search results.

### Align keystroke-zoom and button-zoom increments– MC Investigating

Change the code in svg-pan-zoom to use our increments? MC to look into this.

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**Documentation is here:** [**https://docs.google.com/document/d/1S96eKGRuMTMOTlJ\_hbuhQ9kccirjvhZDOYIauS6ddOA/edit?usp=sharing**](https://docs.google.com/document/d/1S96eKGRuMTMOTlJ_hbuhQ9kccirjvhZDOYIauS6ddOA/edit?usp=sharing)

### 

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# Finished Tasks

### Highlighting – Working

Unfortunately, the html dom spec does not yet support z-index for svg like it does for html. Although it’s in in the draft spec and may be added in the future.

In the meantime, I have a highlighting scheme partially working in: <https://gsap.systemsagency.org/demo/hlt/hlt.html>

There is a custom function ‘hlt’ e.g.

?+++&hlt='@A',2,f,0.8

That will clone the specified UNO and append it to the SVG, and turn on a dimming layer and fade it to an opacity = 0.8.

The bit that doesn’t work it that the appended SVG element is not a proper part of the panzoom svg. So how do we do that? : var theMap=$("g.svg-pan-zoom\_viewport")[0];

Works pretty well, although only the open bits get highlighted. If the UNO is closed, you can open it, but the new bits won’t be highlighted.

### Error turning off ‘empty’ UNOs - gone away in V2 (?)

Turning off an UNO with nothing in it (other than an ooo, vvv, and ccc), e.g.

<https://gsap.systemsagency.org/se/semap.html>

Then: #/?+++&off=Capitals

throws this ugly error:

Uncaught RangeError: Maximum call stack size exceeded

at RegExp.test (<anonymous>)

at Object.trigger (jquery.js:5056)

at jQuery.fn.init.triggerHandler (jquery.js:5866)

at WrapInDbClass.setThisToOff (idiagram-svg.js:5518)

at WrapInDbClass.<anonymous> (idiagram-svg.js:5485)

at SVGGElement.dispatch (jquery.js:5226)

at SVGGElement.elemData.handle (jquery.js:4878)

at Object.trigger (jquery.js:5130)

at jQuery.fn.init.triggerHandler (jquery.js:5866)

at WrapInDbClass.setThisToOff (idiagram-svg.js:5518)

at WrapInDbClass.<anonymous> (idiagram-svg.js:5485)

at SVGGElement.dispatch (jquery.js:5226)

at SVGGElement.elemData.handle (jquery.js:4878)

at Object.trigger (jquery.js:5130)

at jQuery.fn.init.triggerHandler (jquery.js:5866)

at WrapInDbClass.setThisToOff (idiagram-svg.js:5518)

### Feature not Bug ? openURL / closeURL commands

I was thinking this morning that this may actually be a useful feature, not a bug. And if you don't want it to behave that way, you can correct the behavior in the (custom) function called by the URL command (i.e. check if it's already opened closed before doing whatever).

The Problem: in the current code - repeated clicks on an open UNO (i.e. hovering on an UNO and clicking, and then, *without hovering off*, clicking again and again) will keep firing the openURL command (from the DB). Likewise, clicking on a closed UNO will repeatedly fire the closeURL command.

The Fix: prevent the open/closeURL functions from firing more than once - on the initial open/close i.e. on a click on an open UNO if ( UNO is open ) don’t fire openURL command.

See: <https://gsap.systemsagency.org/demo/fold/fold.html>

In this example, ‘folding’ and ‘unfolding’ almost works right, but if you hover and keep clicking on an object, the move command from the DB keeps firing.

### The URL command, all=close is not all is well. fixed

It causes a bit of a crash.

### Xxx’s not being hidden? - Working

See: <https://gsap.systemsagency.org/demo/hlt/hlt.html>

The solid-colored objects are in the xxx-group. But they don’t go away when the UNO is opened. The wall-papery objects are in the vvv.

### Descendant UNOs not working properly - Working

Descendant UNOs (UNOs in the vvv or in the xxx), cannot be independently turned on or opened as they should (if their parent is closed).

See: <https://gsap.systemsagency.org/demo/hlt/hlt.html>

Thing D has descendant UNOs, but they can't be turned on or opened when D is closed - see the links at the bottom of the story-pane: Open D1, Open D2, Open D3

### New variable: gotozRatio - Working

Add a new global variable:

var gotozRatio = 1.0 // Used to tweak the gotoz zoom level; default of 1.0

That can optionally be changed in the JSON file, e.g.:

"gotozRatio": "0.833333",

Then replace this line of code:

zoomTiger.zoomBy(0.8333333); //TODO: Is this supposed to be commented out?

With this:

zoomTiger.zoomBy(gotozRatio); // Tweak the gotoz zoom leve

### Custom Function Parsing - ok

Hitting error on custom function calls with no ‘results’. e.g. in

<https://gsap.systemsagency.org/demo/hlt/hlt.html>

The URL command: ?+++&togglehlt='@A'

Hits an error on line 2712:

relative = resultArray[2].toLowerCase() === 't' ? "+=" : "";

----------

We need a more flexible parser to handle a variety of custom functions.

Change the parsing of custom function commands to handle:

* Functions with no arguments, e.g.  
   &myFunction=&open=unoB –LM: just leave the = on there with no values
* Functions with any number of ‘selectors’ or ‘results’. If the first argument is a string (indicated by a leading quote mark), then the string contains the CSS selectors, followed by any number of ‘results’ (including no results):  
   &myFunction=’@unoA, @unoB’  
   Or  
   &myFunction=’@unoA, @unoB’,1,2,3,4  
  If the first argument is not a string, then all the arguments are ‘results’:  
   &myFunction=1,2,3,4

For example, If you send this command to the URL:

&unfold=3

The custom function, unfold(p1) will be called, with p1 containing the value, "3."

* To call a custom function with no parameters send this to the URL:

&myFunction=

### New V2 - executing UNO rules of operation – Done

**Issues:**

* **Hunting for some … still looking ...**

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**• Fixed – close= URL command de-syncs thing** – e.g. Open A, then close A via URL command, then a hover and a click will not work right: it will close instead of going into click-opened state.

Likely the prev-open/close class getting in the way.

**• Fixed – openall / closeall de-syncs things** – closeall command (from URL or option-click) is messing things up - after a closeall the xxx and vvv are set as **close**, but the UNO is set as **open.**

**• Fixed –**  **closeall command** – the closeall command is leaving things on. See:

<https://gsap.systemsagency.org/demo/v2/radial2.html>

In story-pane click **openall A**, then **closeall A** - or option-click A open and then option-click it closed.

**• Fixed – Using class selectors.** Using a class selector to close UNOs gets the open-close state out of sync. see:

<https://gsap.systemsagency.org/acf/acf3.html>

Click on **Setup Map** - which issues the command **close=.job** (note that the close=.job does what it should, and indeed closes all the UNOs with the .job class.)

Then **Unfold All**, then hover on one of the small squares - the vvv will appear (a box with a red outline - so far so good), BUT then a click, instead of opening the UNO closes it, and another click is required to open it and get things back in sync.

**• Fixed – close= URL command vs. hower/click off** – the hover/click off works properly, but the close= command behaves differently: it leaves stuff on. See:

<https://gsap.systemsagency.org/demo/v2/radial2.html>

In the story-pane click ‘open A and B’, then ‘close A

**-------------------------**

Get V2 - Just Do It™ - to properly execute the UNO rules:

<https://docs.google.com/document/d/1S96eKGRuMTMOTlJ_hbuhQ9kccirjvhZDOYIauS6ddOA/edit?ts=57b33f08#heading=h.75f5kwxa4aj9>

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New test files (with tooltips turned off):

<https://gsap.systemsagency.org/demo/v2/radial2.html>

Alternate test file – tests reversing xxx and vvv, and immediate children:

<https://gsap.systemsagency.org/demo/v2/radial3.html>

### Version 2

Different bundle name for V2 with single-trigger & xxx: **modelator2.js**

V2 test file: <https://gsap.systemsagency.org/demo/v2/v2test.html>

Has 3 main changes, to be tackled in this order:

### 1. Single Trigger – eliminating the ccc-group & adding the xxx-group

I have very reluctantly concluded – as the basic code has been working so well, for a long time, and as it will require a huge amount of map re-building on my end – that you’re right (and I hate it when you’re right ;-): we should do away with having 2 different trigger objects, and go with a single UNO trigger object. This will simplify the code and map-building, and allow us to remove the complication of the temporary open/close rigermorole.

The other advantage of this simpler approach is that is separates the trigger object from the visible artwork in the xxx and vvv. This means that you can now tween the xxx and vvv with impunity - without moving the trigger object from underneath the pointer.

**For future reference:** If someday we want to bring back the moving-trigger functionality, we could add an ‘onClickOn’ and ‘onClickOff’ fields to the DB - which contain a URL functions to be executed. These could be used to switch between 2 different UNOs/ooo’s, using the on/off click URL commands:

off=thisUNO&on=thatUNO

on=thisUNO&off=thatUNO

### 2. on/off open/close Function

Also in this revision, we’re moving from on/off open/close being limited to show/hide (although this will still be the default). On/off open/close would now execute the specified on/off open/close function, that will do *something* with the UNO on the event. See the section **Tweening: On/Off Open/Close Functions** below.

The ooo-group will now be the single trigger. Opening/closing will then simply toggle the vvv-group and the xxx-group (xxx is a new group we now need as we’ll no longer be hiding the ccc-group on an open)

For backward (in)compatibility, the ccc-groups should just be ignored.

Because of this significant change, we should give this new version a new name - and produce an up-to-date spec / documentation.

### 3. New Code Architecture

This change could be an opportunity to rewrite the core interactivity code in a cleaner more robust promise’y way. Also - see below **Tweening: Relative Tweening Issues**  - re another timing / finishing issue that we might want to roll into new code. V2 is an opportunity to re-think the code design based on what we know now, vs. what we started with an gradually built on.

We may first want to do a quick-n-dirty ‘interim’ V2 that implements new specification outlined below, but using the existing code architecture. This will quickly get us to a version a that I can use to (re)build maps with the new spec. Once we’ve ironed-out the details of how the new spec should work, *then* we can revamp the code architecture.

**UNO States** - do we keep the current system of sending messages to UNOs re what state they should be in, or is there a simpler way for CSS/GSAP to serve that communication/memory function?

Note from Larry: I ended up not needing promises for this V2, since we are not turning svg into a flat file. I pulled out all that code and simplified it. Also with not needing the ccc, which took over the mouse focus, I didn't need to enforce the ooo to retain mouse focus by setting some css classes, which was causing some bad tooltip behavior, which I didn't realize until I started stripping out all the superfluous code.

### V2 Specification

Note that the fundamentals of how things work doesn’t really change all that much. We’re just going to the one trigger, and changing which group gets hidden on an open: now the xxx-group instead of the ooo (which is now always-on).

However, we’ll need to think carefully about the consequences of going from the on/off open/close functions only showing/hiding, to allowing tween functions that might move, size, rotate, etc. For example, an on-function that uses a ‘move’ would also have to move the vvv-group, even though you’ll probably want the vvv-group to be hidden during the move…. See **Tweening: On/Off Open/Close Functions** for more.

**V2 Spec moved to here:**

<https://docs.google.com/document/d/1S96eKGRuMTMOTlJ_hbuhQ9kccirjvhZDOYIauS6ddOA/edit?ts=57b33f08#heading=h.7c7z1i2tgwp>

### Zoom key error - Fixed

Code error, gotozRatio should not used by the zoom keys - idiagram-svg.js line1271:

zoomTiger.zoomBy(getGlobal("gotozRatio")); //defaults to 0.833333

Should just be:

zoomTiger.zoomBy(0.833333));

Here is what it now looks like (line numbers were different than line 1271): - That’s correct

else if (e.which == 91 || e.which == 219) {

// if key is "["

// zoomTiger.zoomOut();

// Use our own zoom increment

zoomTiger.zoomBy(0.833333); //defaults to 0.833333

}

else if (e.which == 93 || e.which == 221) {

// if key is "]"

// zoomTiger.zoomIn();

// Use our own zoom increment

zoomTiger.zoomBy(1.2);

}

### Loading info-pane – Fixed

With "hoverAction": "none", the info-pane is not being loaded when hovering on an open UNO. It does load when hovering on a closed UNO, but should load for open UNOs as well. See:

<https://gsap.systemsagency.org/demo/v2/radial2.html#>

### Gotoz fix – Fixed

This one drove me mad - took forever to figure out how to make it zoom correctly. Replace the gotoz zooming code (in processCommandsInURL) with:

// Do the Zoom

// Fit the element to the map-pane width or height depending on the map-pane aspect ratio

if (((s.width / s.height) / (ta.width / ta.height)) >= 1.0) {

// Calculate zoom-to-fill for height

// We must adjust for which dimension the zoom ration was set for

if(s.viewBox.height/s.viewBox.width > s.height/s.width) {

zoomToElement = ((s.viewBox.height / ta.height) \* zoomRatio);

}

else {

zoomToElement = ((s.viewBox.height / ta.height) \* zoomRatio) \* ((s.viewBox.height/s.viewBox.width) / (s.height/s.width));

}

}

else {

// Calculate zoom-to-fill for width

// We must adjust for which dimension the zoom ration was set for

if(s.viewBox.height/s.viewBox.width > s.height/s.width) {

zoomToElement = ((s.viewBox.width / ta.width) \* zoomRatio) \* ((s.viewBox.height/s.viewBox.width) / (s.height/s.width));

}

else {

zoomToElement = ((s.viewBox.width / ta.width) \* zoomRatio);

}

}

### Add functions to set UNOs open & close state – Done

See: <https://gsap.systemsagency.org/acf/acf3.html>

In customstuff.js, the unfoldall() and unfoldall() functions (you can use the **Fold/Unfold all** control in the upper left corner of the map to trigger) need to manually set the UNOs state with this code:

// Manually set the UNO to .open, because it's now unfolded - use the default function to set it up right

var unoClass = idiagramSvg.idGroupObject[foldees[i].substring(1)];

unoClass.setOpenState();

Please add to the code the functions:

DddClass.prototype.setOpenState

DddClass.prototype.setCloseState

- that you’ll find in /acf/bundle2.js.

### Startup function – Done

And here’s what I’m using:

$(window).on("svgloadedComplete", function() {

var selectorAndResultArray = {

selector: '#AD #CD #C #CM #DE #PPM #SS #EF' //TODO: Designer needs to hard code this in somehow.

};

initFold(selectorAndResultArray)

});

----------------------

To make folding work (in ACF), the initialization command must first be run:

openall=Map&initFold='@AD @CD @C @CM @DE @PPM @SS @EF',v,0.5

The openall=Map is needed first because initFold uses getBBox() to capture the sizes of everything in the fully unfolded state.

The problem is that you always have to carefully go through the startup sequence starting with the basic URL:

https://idiagram.com/acf/acf.html

Going directly to longer URLs:

https://idiagram.com/acf/acf.html#/?openall=Map&initFold='@AD @CD @C @CM @DE @PPM @SS @EF',v,0.5&epane=500&wpane=220&story=acfIntro.html&story=acfViews.html&close=.job&close=.subfamily&panx=700.0&pany=1365.0&zoom=1.0&open=.subfamily&open=AD&open=CD

Will not work

### Open/Close - .prev-open - bug – Fixed?

Seems to be working ok now….

------------------

See: <https://gsap.systemsagency.org/acf/acf3.html>

Clicking on the big bars to close (fold) things take 2 clicks - *sometimes* (you may have to open and close things a number of times - after hovering off the UNO).

The problem occurs when the ooo-group loses its ‘prev-open’ class. The sequence:

Open an foldable uno e.g. ‘Consulting’ - oooConsulting gets ‘prev-open’

Hover/click on other things - oooConsulting loses ‘prev-open’

First click on oooConsulting - ‘prev-open’ is restored (but nothing else happens)

Second click on oooConsulting - Consulting folds.

AND - this is in fact the same problem at startup: all the folding UNOs are set to open, but their ooo’s have no ‘prev-’ class, so the first click sets ‘prev-open’, and the second click folds ‘em closed.

### Scrolling the info-pane – Fixed

Fixed with a scroll to anchor ID custom function:

function scroll(selectorAndResultArray) {

var anchorID = "#" + selectorAndResultArray.fullParameterString;

$(function() { $('body,#infopane').animate({scrollTop:$ (anchorID).offset().top},'500'); });

}

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We have the need to scroll to some anchors within the infopane, and I’ve found a little function that does that. Unfortunately, is doesn’t work in the map.

Riddle me this: why does this test file work

<https://gsap.systemsagency.org/acf/scrollTest.html>

– clicking on 1. Apprentice Engineer or 2. Student Engineer does the scrolling. This test file is just a copy of acf.html, with the full infopane div copied/pasted from the acf.html map (using the Element inspector) - so the infopane and its content is the result of the DB markdown conversion.

But in the real map, with the info-pane dynamically loaded from markdown text in the DB, it does not work:

<https://gsap.systemsagency.org/acf/acf.html#/?epane=455&wpane=0&open=DEDE4&story=acfViews.html&panx=825.0&pany=930.0&zoom=4.0>

For some reason, in the real map, the infopane can’t seem to connect with the code in acf.html - even though it’s seeing the CSS that’s in acf.html. Why oh why is this vexing me…

### Limit on spreadsheet size - Fixed

This:

<https://www.cyberciti.biz/faq/linux-unix-bsd-nginx-413-request-entity-too-large/>

Fixed it.

\_\_\_\_\_\_

The latest Acradis SVF spreadsheet is 1.4MB (it has lots of data and tabs), and attempting to importSpread it throws this error:

Failed to load resource: the server responded with a status of 413 (Request Entity Too Large)

I’ve done a simple work-around, but can we easily increase the upload limit?

### Commands not being added/removed from URL – Fixed

I noticed that if an open=A is at the end of a url value, then children of A that were opened at the beginning of the url statement are hidden. The fix is that the open=A should come at the beginning of the url statement, ie:

https://get-started-genealogy.c9users.io/demo/v2/radial2.html#/?wpane=200&epane=200&on=Map&***open=A***&on=C1&on=C2&on=C3&on=C4&on=C5&on=C6&on=C7&on=C8&panx=1000.0&pany=1000.0&zoom=1.000&story=radialViews.md

---------------------------------------

It's almost there. It's correct to leave the close command in the URL. The only glitch I see is that it allows simultaneous on/off or open/close commands in the URL e.g.

&open=A&close=A

Which is just wee bit ambiguous. You can test this by hitting the pane-links **open A, close A** multiple times. The good thing is that the code doesn’t let the URL keep growing, but it leaves the conflicting open/close commands in the URL. The same happens for on/off commands e.g. hit the pane-link **B1-B8 On, B1-B8 Off** a number of times and you’ll get:

&on=B1&on=B2&on=B3&on=B4&on=B5&on=B6&on=B7&on=B8off=B1&off=B2&off=B3&off=B4&off=B5&off=B6&off=B7&off=B8

I know that. That's why I asked if you want me to fix that in the comment. I will do that.

I'll remove the close command that contains the same id as the open command (also on) and the same for the reverse (remove open commands with the same id bla bla :).

Yes - great - that sounds right.

Ah - I thought you meant remove ALL close commands. It’s good to leave the close commands in the URL, *unless* there is a subsequent open command that contradicts the close command.

---------------

See: <https://gsap.systemsagency.org/demo/v2/radial2.html>

Clicking on UNOs to open/close them does not change the URL.

Hitting the pane links - eg. **Open A**  or **Close A** - does *add* the commands to the URL. However, commands are not being removed, so hitting Open A / Close A repeatedly makes the URL redundantly longer and longer.

### Pane-sizing *first*, *then* pan and everything else – Fixed for now

Delay is set to 1400ms - but only if the pane size is being updated - still a bit inelegant and slow.

Future work - figure out a real callback scheme - or promise.

------

Adjusting the pane size from closed works now, but is really sloooooowwwww. Need to improve them timing value or promise it.

-----

New test file: <https://gsap.systemsagency.org/demo/pz/pz.html>

It shows that the pane-sizing often works correctly - when adjusting the size of open panes - but that there's a particular problem when opening the panes from 0 (fully closed).

This opening-from-closed problem is what we're running into the acf map case.

------

This seems to possibly not be a timing issue, but a result of when the east-pane changes size, it does not update the map-pane size. The west-pane does update the map-pane when in changes size.

\_\_\_\_\_\_\_\_\_\_

See this for an example of what goes wrong:

<https://gsap.systemsagency.org/acf/acf.html>

Then click on The Career Framework Map - bottom of the page. The result is that the map is NOT centered in the map-pane as it should be, because pan/zoom happens before the info-pane adjusts. It seem to wait for the wpane to adjust, but not the epane. Also note that the map-pane responsively sizes to adjustment in the wpane, but not the epane.

––––––––––

When a URL command contains a pane-sizing and panning, OR a something like a gotoz command that will panzoom the map-pane, we need to ensure that first we adjust panes (and wait for that to finish?) and *then* do the panning. Otherwise, what you get on the screen is not what’s in the URL (because the panning is done relative the map-pane size *before* the east or west pane changed size.)

For example, go to:

<https://gsap.systemsagency.org/acf/acf.html>

Then click on **The Career Framework Map** which has this in the URL - &panx=700&pany=1550

But you’ll see that that is not what is in the URL when the map opens.

Not sure why this isn’t working? Line 3409

//WE ARE PUTTING THE PAN/ZOOM CODE IN A SETTIMEOUT FUNCTION BECAUSE THE PANE CHANGES NEED TIME TO COMPLETE!

setTimeout(function(zoom, panx, pany, doPanning, doZoom, gotoId, panzoomDuration) {

I am wondering if this bug has to do with this [old rule](https://docs.google.com/document/d/1v_BWSSWPhkCOLeVCBHvZUN61JtiFBLFgbOuK68RsWVs/edit?ts=56aab081#heading=h.xe8uj8ly9gav):

*If there are no pan/zoom/pane values in the +++ command, then the new URL should use the current pan/zoom/pane values. Note that we don’t want to use the values from the current URL, but the values from the actual current pan/zoom/pane state. Those values will need to be grabbed - as we do on a shift-click - and then used to form the new URL.*

### HTTPS cert renewal– done

Do we need a better / automated way to maintain certification?

* **Info-pane scrolling conflict - worked-around**

Added open=thisUNO to the scrolling URL command - so that thisUNO is the last in thing in the URL - which is a viable work-around.

----------

There is conflict in the acf map between the scrolling custom function, and our standard info-pane filling scheme:

<https://gsap.systemsagency.org/acf/acf.html>

Open the map by clicking on  **The Career Framework Map**  (noting that I’ve put a custom-function band-aid on the pane opening problems).

Then clicking on Unfold All in the upper-left of the map

Then hover click on **Design & Engineering – Design & Engineering** - level 4 - then click on the link [2. Student Engineer](https://gsap.systemsagency.org/acf/acf.html#/?+++&scroll=2092) in the info-pane. *The info-pane scrolls correctly.*

Now

Click Fold All, and the open/close a few of the boxes, then open Design & Engineering Level 4 and try the Student Engineer link again - it will not scroll, *but will incorrectly display the info-pane-info for the last UNO in the URL - just like it’s supposed to (but in this case causes an error).*

### Class for infopane titles - Done

Currently the infopane puts the DB ‘label’ at the top of the pane as an h3. I would like to change this from being h3 to the CSS class ‘infopane-title.

### Technology Stack Note

We need to send COB today (01/18) a note to the Arcadis IT team that outlines the technology stack needed to deploy the map, as well as an other technical issues they need to be aware of.

**Basic Technology Stack**

* Ubuntu 14.04.5 LTS – Linux operating system
* Node.js – open-source, cross-platform JavaScript runtime environment
* Nginx – web server, load balancer and HTTP cache
* MongoDB – open-source cross-platform document-oriented database
* Mongoose – data-modelling format for MongoDB data
* Javascript – programming language for the mapping platform
* Jquery – Javascript library
* Bootstrap – Javascript library
* letsencrypt – https Certification
* npm – package manager node.js

The site is currently served as HTTPS - which needed for user registered & login. Once hosted on the Arcadis internal site, this may not be needed and we can revert to using HTTP.

**Setting up the site**

We have very basic documentation that outlines how to set up the technology stack outlined above.

The development environment is currently running as a droplet on the DigitalOcean ISP. One option might be just to replicate that droplet either on the Arcadis servers or through an Arcadis certified ISP.

**Updating the Framework Map**

Re updating, the map has 2 elements: the database of job description information, and the Javascript & HTML files that control the interactivity and the map graphics.

The MongoDB database is populated by manually uploading an Excel spreadsheet. The maintenance and uploading of that spreadsheet will be handled by the Arcadis HR team.

The rest of the map consists of a few HTML files and the Javascript code. Changes to these files would be handled by Idiagram, so we would need a process and mechanism for moving any updates onto the server. Either we would need access to those servers, or Arcadis IT could copy over the latest version from our servers.

**Browser Compatibility**

The map has been tested to run on Chrome, Opera, Safari, Firefox, and IE11. Versions of IE previous to IE11 have not been tested.

### 

### Server-side Stack Details:

There are a number of other bits and bobs installed on the server (some of these are probably not required).

"dependencies": {

"babel-preset-react": "^6.5.0",

"babelify": "^7.3.0",

"bcryptjs": "^2.3.0",

"body-parser": "~1.12.4",

"connect-flash": "^0.1.1",

"connect-mongo": "^1.1.0",

"cookie-parser": "~1.3.5",

"debug": "~2.2.0",

"express": "~4.12.4",

"express-session": "^1.13.0",

"hbs": "^3.1.1",

"helmet": "^2.1.0",

"mongoose": "^4.4.11",

"morgan": "~1.5.3",

"multer": "^0.1.8",

"passport": "^0.3.2",

"passport-local": "^1.0.0",

"passport.socketio": "^3.6.2",

"rand-token": "^0.2.1",

"sendgrid": "^2.0.0",

"serve-favicon": "^2.3.0",

"socket.io": "^1.4.8",

"xlsx-to-json":

}

### Reset Button Zooming – Done

Can we have the ‘RESET’ button call custom function so we can control what it pan/zooms to? I could expose an API for a custom function.

### Hover(?) Bug – Resolved

There is a bad bug with hovering … still investigating the exact issue. It’s an intermittent problem, but as far as I can tell, it looks like a timing issue (hence the non-repeatability) that is letting stray hover actions to get through for object that have hoverAction set to none.

The culprit was adding the UNO ‘Map’ to the ACF spreadsheet. Not sure why this caused havoc, but it did.

### Lock-on Function - LM Implemented

UNOs can have a ‘lock-on’ state that prevents them from being turned off or on, i.e. nothing – no command, or change of parent state – can change the UNO’s on or off state.. The UNO will thus will always be visible (at least if the default on is being used) until the lock-on state is cleared via a togglelock=thisUNO (if the UNO is locked), unlock=thisUNO, or unlock=all.

The locking commands:

**lock**=unoID Sets the lock-on state for the UNO

**unlock**=unoID | all Removes the lock-on state from the UNO(s)

**togglelock**=unoID Toggles the lock-on state for the UNO

These could be complicated commands (but they really aren’t, are they?) - that should be written into the main code (and not customstuff.js).

In addition to the locking/unlocking click actions, think it’s as simple as a one line of code implementation

If ( thisUno.lockOn == False ) {

… the existing turn-this-UNO-off code …

Note: If, during the act of hovering, the lock feature is applied, the act of hovering off without clicking will automatically reverse all changes, including locking.

### Removed URL commands not staying removed - working?

On starting up <https://gsap.systemsagency.org/acf/acf3.html>, the initFold command (in the startup URL) removes itself with:

$.address.parameter("initFold", ""); //remove all these commands from url

It’s not there when the map opens (on the splash page), but it comes back the next time are URL command is sent from a pane-link (clicking **Go to the Career Framework Map** ).

Try **$.address.update(). See http://www.asual.com/jquery/address/docs/#api-reference**

### Error message on denied access – Done

We need an error message page/dialog when a user attempt to access page for which they’re not authorized.

The error page is located in views/error.hbs - which is embedded inside the handlebars page, layout.hbs

### Whitelisting - Awaiting response from Arcadis

It looks like Arcadis is going to want us to set up and host - on DigitalOcean - the ACF site. That should be easy enough to set up (copy a droplet?). But then I’d like to restrict access so only you, I, and the Arcadian servers can access the site (rather than having logins). Can you take a few minutes to research options - and have a look at this:

<https://www.digitalocean.com/community/questions/whitelist-ip-s-from-cms-to-iptables-or-any-firewall>

You need only read enough to give an opinion on if it’s doable and how many hours it’ll take - so I can put together a quick proposal.

From Larry Maddocks: I have been thinking about the idea of not having logins. I am strongly in favor of logins for security reasons. We need to know who is doing what on the system. Security is ingrained into every aspect of this system, and we should not dump it in favor of convenience. It is also a huge hassle to maintain two versions -- one for a company who wants less security and the other version for security-minded companies. Having worked in the corporate environment, I have found that if something goes wrong, everyone starts looking for a scapegoat. I have seen amazing, innocent, talented developers and employees get fired for nothing more than not being able to prove they are innocent. Each person who logs in must have their own log-in. Their activity should be logged.

We may want to have more levels of security, such as admin giving access to the dashboard, or parts of the dashboard, and admin to access to all folders and database editing. The initial login could have access to default folders, and assigned a viewer security.

### Disable double-click zoom

Svg-pan-zoom does an incremental zoom-in on a double-click – and this overlaps with our new double-click functions.

To disable it we need to set the svg-pan-zoom API method **disableDblClickZoom** - see <https://github.com/ariutta/svg-pan-zoom>

### Interactivity Control – Done

It’s become apparent in working on different maps that the designer needs complete control over all combinations and permutations of hover, click, open/close, tooltip, and info-pane loading. To that end I’m suggesting this revised spec for the DB and interactivity control.

Change all DB headers to camelCase?

**hoverAction** – moves from a global in the JSON file to a per-UNO field in the DB - that *replaces* **onhover**. With similar values:

**both** hovering will open a closed UNO, and close an open one

**open** hovering will open a closed UNO

**close** hovering will close an open UNO

**none** hovering will not open or close an UNO - but hover will show a tooltip and info-pane if **infopane** or **tooltip** says to.

**function** run the custom function specified in the new field **hoverFunction**  - in URL command syntax.

Default = **both**

**clickAction –** likewise moves to the DB and *replaces* **onclick** with the values:

**openClose** a click will open a closed UNO, and close an open one

**none** a click will do absolutely nothing

**gotoz** runs the gotoz. The url is still updated the same as before. If the uno is in a closed state, it will not open it before zooming into it. Pressing **c-click** will will open a closed UNO, and close an open one. If the UNO is in a *open* state, it will not close it before zooming.

**function** run the custom function specified in the new field **clickFunction**  - in URL command syntax**.** Do not change the state.

Default = **openClose**

**onDoubleClick** – changes from a URL to a function name:

**functionName=params** run this custom function - in URL command syntax

e.g. to use double-click to open a link, we could have the ‘standard’ custom function:

openLink=url

Default = do nothing.

**infoPane** – the current DB field changes from a boolean to a value that specifies when the info-pane should be loaded:

**none** do not load the info-pane

**hover** load on a hover

**click** load on a click - and only a click, not on a hover

Default = **hover** for legacy maps with an infopane=”1”

**tooltip** – stays roughly the same: 0 = do nothing, 1 = display the tooltip on a hover (no matter what).

Default = **1** - if shortDescription isn’t empty, show the tooltip.

I'm thinking that the url idea should be replaced with just calling a list of functions. Maybe we can talk about these. To make this work, we need to have functions such as gotoz, so in this field, instead of: "?+++&gotoz=D73" do: “gotoz=D73&foo=A".

### robots.txt

You may be interested in limiting what search engines report on your web sites. There is a file called robots.txt that will limit what the honest search engines will report. See <http://www.robotstxt.org/robotstxt.html>

Also see what is being reported now for idiagram.com: [https://www.google.com/?hl=en#hl=en&q=site:www.idiagram.com&\*](https://www.google.com/?hl=en#hl=en&q=site:www.idiagram.com&*)

### Setup website analytics

I’d like to monitor traffic to the newly redone www.idiagram.com site. Any chance you could install this or equivalent?:

<https://www.digitalocean.com/community/tutorials/how-to-install-piwik-on-an-ubuntu-12-04-cloud-server>

<https://analytics.google.com/analytics/web>

<https://www.digitalocean.com/community/projects/countly-digital-ocean-installer>

I set up the google analytics for you. I got the script from google and inserted it onto the top of some pages on idiagram.com, such as the default index.html and the layout.hbs and /var/www/idiagram/authorized/acf/acf.html

There may be a way to auto-include this script from a .js file so we don’t have to change it for each site every time. Each site has it’s own id that goes into the script.

To see analytic reports, go here: <https://analytics.google.com/analytics/web>

### Help file oddities

The help file system is behaving weird, see: - **FIXED** - by adding the modal code to the main html

<https://gsap.systemsagency.org/demo/v2/radial2.html>

The help file is not working for this page - no idea why, it looks to me just like all the other pages that do work. The ‘H’ key doesn’t bring up the help, and the ‘Help’ button in the menu doesn’t work (I assume the button is working, but that fetching the file isn’t working?)

And on this page: - **FIXED** - by keeping the required bootstrap links in the header.

<https://gsap.systemsagency.org/acf2/acf.html>

If you set the help file in acf.json to:

"helpLink": "/docs/help.html",

It works fine. But if I try to specify a different file:

"helpLink": "/docs/acfhelp.html",

It throws this error:

Uncaught TypeError: $(...).modal is not a function

at bundle2.min.js:3

at c (bundle2.min.js:29)

at Object.fireWith [as resolveWith] (bundle2.min.js:29)

at n (bundle2.min.js:31)

at XMLHttpRequest.i (bundle2.min.js:31)

### New code has broken folding - FIXED

Something in the latest version has made ACF/folding not work right:

<https://gsap.systemsagency.org/acf2/acfnew.html> - running bundle2.min.js of 2/27/17

<https://gsap.systemsagency.org/acf2/acf.html> - running bundle2.min.js of 2/1/17

LM:

I think maybe the problem is that I was assuming a url command. We have two custom commands when something is clicked on to open. The clickAction=function (found in clickFunction in the database which does not seem to be used, but is URL-based) and the openFunction.

ANYWAY, I'll change it back to non-URL-based command

### Simple floating button – MC Implementing

I’ve made some progress with floaty buttons and the menu, see:

<https://gsap.systemsagency.org/demo/v2/radial2.html>

I need you to expose some functions that do what the keystrokes do:

idiagramSvg.printSvg();**– Done**

idiagramSvg.zoomTiger.zoomBy(1.2);**– Done**

idiagramSvg.zoomAll(e);**– Done**

idiagramSvg.zoomTiger.zoomBy(0.833333);**– Done**

The code for these is in the file: authorized/demo/v2/controlmenu.js

And a new function please, a new global flag for tooltips:

var tooltipOn = true;

That controls whether tooltips get displayed (if they’re also turned on in the DB). Tooltips are useful, but can also really annoying, so it would be nice to have a control to turn them off/on. I just added this button to the control menu and controlmenu.js:

$("body").addClass("hideQTip"); //this hides tooltips.

$("body").removeClass("hideQTip"); //this shows the tooltips.

Also - let me know your general opinion of how the controls menu looks and works.

**+-Reset Buttons** - remove the svgpanzoom +- Reset controls from the map window.

**Done:** in options for svg pan zoomcontrolIconsEnabled: false,

**defaultURL** - for btnReset in control menu.js , insert the default URL from the JSON file as the reset URL command.

if (idiagramSvg.designerPrefs.defaultURL !== undefined && idiagramSvg.designerPrefs.defaultURL.length) {

var q = idiagramSvg.getURLParameterList(idiagramSvg.designerPrefs.defaultURL);

idiagramSvg.processCommandsInURL(q);

}

-----------

|  |  |
| --- | --- |
| **w** | Toggle west pane, the story-pane |
| **e** | Toggle east pane, the info-pane |
| **o-click** | On an UNO: toggle the lock-on state for that UNO |
| **k** | Unlock all |
| **a-click** | Play the animation for that UNO |

### Openall command not showing up in URL - from an option-click – FIXED

The openall=UNO – from an option click – should be added the current URL.

See: [https://gsap.systemsagency.org/demo/v2/radial2.html](https://gsap.systemsagency.org/demo/v2/radial2.html#)

Then option-click on A, or use the right-click (on A) menu and select Open All

I am adding a new function and will test it now. This will add your command to the url. Here is the function so far:

/\*\*

\* Send in one command and this will pre-pend a +++ and run the command

\* and also add it to the url if it isn't in there.

\*\*/

function processCommandsAndAddToURL(command, id) {

$.address.history(true);

var q = idiagramSvg.getURLParameterList("+++&" + command + "=" + id);

idiagramSvg.processCommandsInURL(q);

idiagramSvg.addCommandToURL(command, id); //openall=id

$.address.update();

$.address.history(false);

idiagramSvg.PreviousUrlAddress = $.address.value();

}

Check out https://gsap.systemsagency.org/demo/v2lm/radial2.html

### Menu stuff interacting with mapform stuff – FIXED

With the munu stuff:

<https://gsap.systemsagency.org/demo/v2/radial2.html>

Without the menu stuff:

<https://gsap.systemsagency.org/demo/v2/radial.html>

The version without the menu stuff doesn’t have the problem of the disappearing map with mapform=true.

Could this be bootstrap code for the menu & map form conflicting? Maybe. Sounds logical.

In what file does the mapform live? Answer: public/mapDbEditor.hbs

------

Fixed by created local subclass for the bootstrap menu in menustyles.css:

.bootstrap-iso.mapMenu {

### Initializing in customstuff.js in acf - needed?

Add a new openall command that does NOT run the custom on/off/open/close commands (from the DB).

\_\_\_\_\_\_\_\_\_\_\_\_\_\_

stuffIsTweening() gets called before customstuff.js finishes initializing, causing an error, causing me to have to disable stuffIsTweening() to debug stuff. I am getting an error from customstuff.js. Initialize isn't finished before it tries to run

var q = idiagramSvg.getURLParameterList("openall=Map"); idiagramSvg.processCommandsInURL(q);

Then that calls stuffIsTweening(). var foldees is not initialized yet.

### Highlighted UNOs not being hidden/shown when parent closes/opens - – FEATURE! Not bug

How can we get the highlighted items to be ‘seen’ by the code?

Note that with this bug, the highlighting function works like ‘lockon’ function *should* work. But the lock-on function currently isn’t handling the UNO elements quite right.

### Keyboard Shortcuts – Done0

Add keyboard / click shortcuts:

|  |  |
| --- | --- |
| **l + click** | On an UNO: toggle highlight for that UNO - togglehlt=thisUNO |
| **u** | Unhighlight all UNOs - unhlt=all |
| **o + click** | On an UNO: toggle the lock-on state for that UNO - togglelock=thisUNO |
| **k** | Unlocks all UNOs: - unlock=all |
| **a + click** | On an UNO: play the animation for that UNO - play=thisUNO |

An ‘l’-click (“el-click”) on an UNO will run togglehlt=thisUNO.

The ‘u’ key run unhlt=all.

An ‘o’-click will toggle the UNOs lock-on state; togglelock=thisUNO.

The ‘k’ key will run unlock=all.

An ‘a’-click will run play=thisUNO, if there is no animation with the name ‘thisUNO’ then run play=noAnimation (noAnimation will play a short error sound).

### Add new functions to the real code - Working

Please add these 2 functions to the official code - to your baseIdClass.js I believe.

You can find the new code in my:

/cf/bundle2.js - starting at line 113

You’ll see that I’ve added 2 new functions:

defaultShow(unoID)

defaultHide(unoID)

The function code needs to be added as well as their declaration in var baseIdClass = {

### Add class-assignment to the DB and map form - Working

We currently assign classes to UNOs using the somewhat kludgy method of, in Illustrator, adding ‘class=className’ to the SVG ID.

We should move the assignment of (multiple) classes to an UNO to a new DB field: **classes**. And then, of course, add that field to the map form. Multiple classes can be space-separated in a single field:

thisClass thatClass anotherClass

**DO NOT** And take out the code that does it the old way - that pulls in the classes from the SVG file.

### Lockon Function – Done

Comment-out the lockon code. :-) :-(