

TRAINING GUIDE

Lucity Web Map Administration

Lucity Web Map Administration

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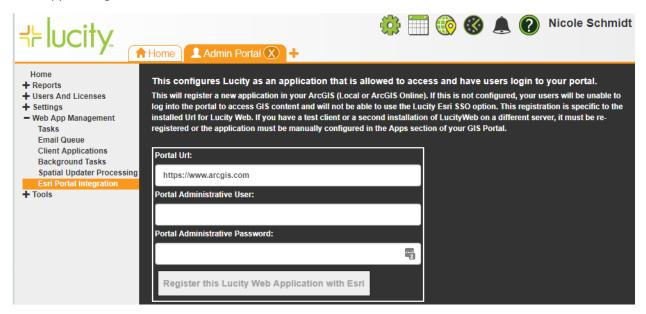
Portal Config and SSO

Lucity integrates with the Esri portal technology. This can be ArcGIS Online or it can be Portal for ArcGIS Enterprise. Portal integration is currently optional in the web map, but recommended. Enabling SSO is optional.

The Lucity integration with portal requires an application for Lucity Web to be registered in your portal.

Registering with Portal

To register Lucity with your portal, go to the Esri Portal Integration interface in the Admin Portal under Web App Management.

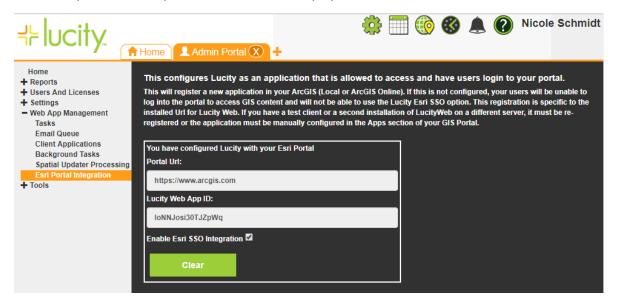


If not using ArcGIS Online, change the URL to your local portal URL. This may be something like https://myserver/portal/ or https://www.servername.com/server/ depending on what your portal home address is. The 2 above URLs have the following portal home addresses, https://myserver/portal/home or https://www.servername.com/server/home respectively.

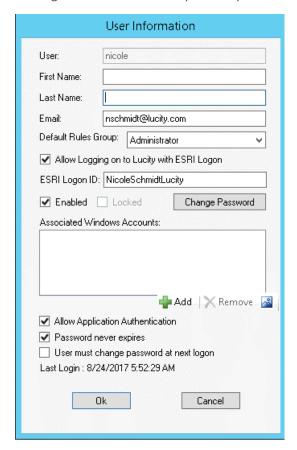
Enter a portal administrative user and password. These are not saved, they are only used during this session to register the application. Note: **Portal administrative user credentials are case sensitive**.

Notes:		

When the process is completed, the client id is displayed:

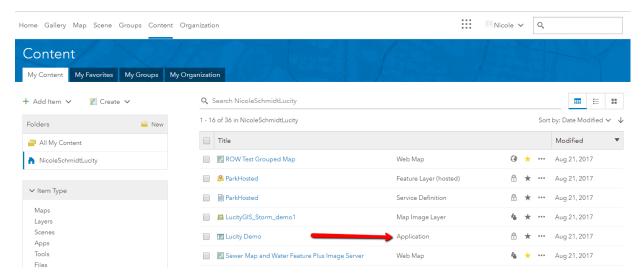


If desired, turn on the SSO integration. This allows users to login with their Esri credentials. Enabling this option enables the button on the Lucity login page. Each user must also be configured with their Esri login credentials in Lucity Security.

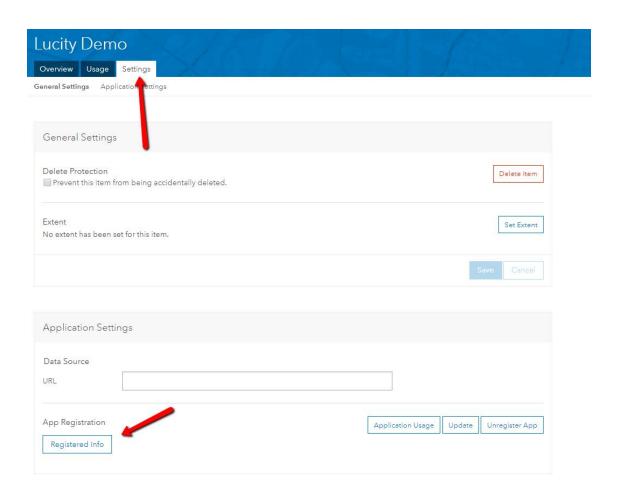


Behind the Scenes

When the automated portal registration is run through the Lucity admin portal, an application is registered with portal which will show up as an App under gallery or content.



The important part of this application registration is under settings in the item details



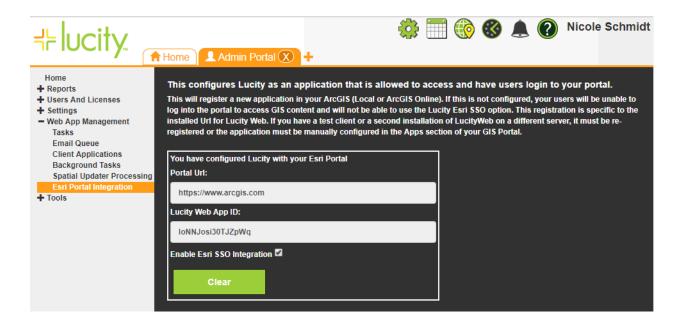
This includes the client Id used by Lucity along with the URL for your Lucity Web environment that handles login redirects. This will always end in "Public/oauth-callback.html"



If you unregister the app, or if you remove a URL, it may cause Lucity to be unable to use the portal integration. If that happens you can reset and create the portal integration details as described below.

Resetting Portal Integration

To reset the portal integration, go to the Esri Portal Integration in the admin portal and click Clear.



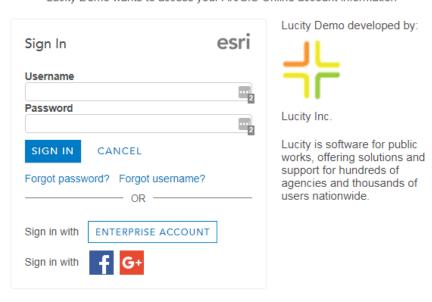
Single Sign On

Once Enable Esri SSO Integration is enabled, users can log into Lucity using the "Sign in with ArcGIS" option on the login page.

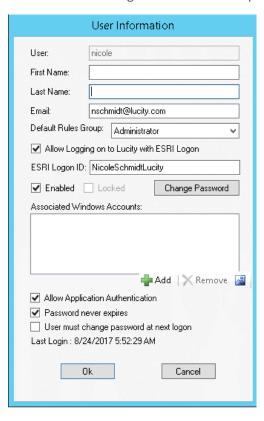


Clicking Sign in with ArcGIS will open a prompt that ask the user to enter their Esri credentials

Lucity Demo wants to access your ArcGIS Online account information



It will use the Esri login entered to lookup a Lucity user using the Esri account configured in security.



Once logged in with SSO, the user will not need to enter credentials for any services federated with their portal or that are configured to login automatically in their portal.

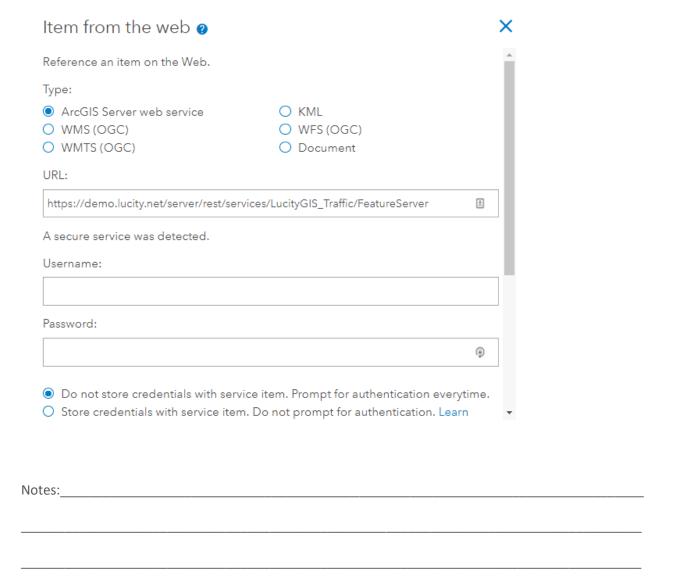
Notes:			

Secured Services

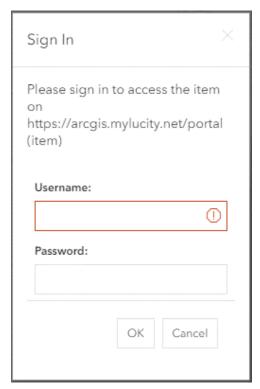
Logged into Portal and accessing a secured service federated with Portal

Once logged into portal, users will not be prompted for credentials when they try to access secured services on any server that is federated with portal. The exception is if they try to access a secured service you have not granted them access to through the sharing properties of the service in portal.

Logged into Portal and accessing a Web Map secured service not federated with Portal If a user is logged into portal but is accessing a secured service that is not federated with portal, the behavior will depend on whether the credentials were saved with the service in portal (this feature only available for Feature Services, not Map Services).



If it is a Map Service or the credentials were not saved with the service, the user will be prompted for credentials



Lucity Maps vs Web Maps

The Lucity Web interface is optimized for use with "web maps". To be able to use "web maps", you must be using portal (ArcGIS Online or have upgraded to 10.5+ and using portal for ArcGIS Enterprise) and must have web maps authored and available for your users. These web maps can reference ArcGIS Server services on older ArcGIS Server versions, if needed. It is not necessary for an ArcGIS Server service to be publicly accessible to deploy web maps using ArcGIS Online to your enterprise.

If you have not upgraded to 10.5+ yet or are not ready to configure web maps in ArcGIS Online, you can use the old-style "Lucity Maps" during the transition.

The Lucity mobile products currently still require Lucity Maps. These will be transitioned to web maps in the next 9 to 12 months.

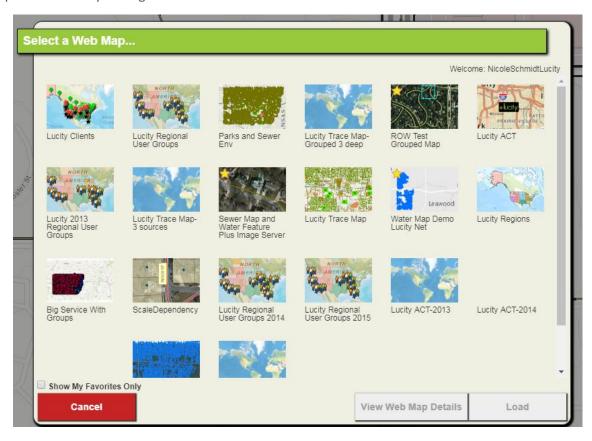
Notes:	 	 	

Portal Gallery

The Swap Webmap and Swamp Basemap tools will display a list of items from the portal configured with Lucity. The following sections describe how these galleries can be customized.

Lucity Web Map Gallery Configuration

If you are logged into portal, the Lucity web map gallery (by default) will include all web maps in your organization. Lucity will automatically figure out what organization you belong to and only show web maps shared with your organization.

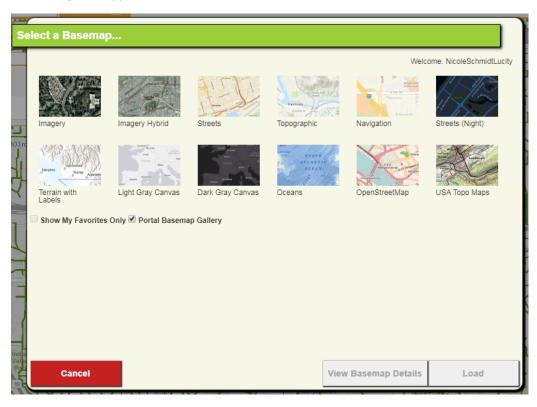


If you are not logged in, the list of web maps will be all public web maps published by any user in ArcGIS Online. If you want to limit the gallery to only show public maps in your own organization, set the Org Id in the Lucity System settings and the map gallery will automatically limit the web map gallery to only show web maps in your organization:



Lucity Base Map Gallery Configuration

If Show Portal Basemap Gallery is selected, the portal Basemap gallery which has been configured in the maps tab of the Organization settings in portal will be used to limit the base map results. No other limits or tag search strings are applied to limit the results



If Show Portal Basemap gallery is not selected, the basemap gallery will include all items that meet this search criteria:

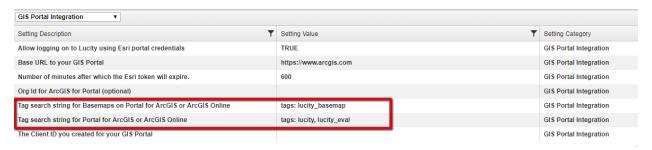
tags:esri_basemap OR tags:partner_basemap OR tags:user_basemap OR tags:basemap

Unless a custom search tag is defined for basemaps. If a custom search criterion is specified, the above default tag search criteria is not used.

Notes:		

Limiting Gallery Results by Tags

To further customize what results are returned in the web map or basemap gallery display, you can set an additional query to be applied to the gallery results in system settings.



Entering

tags:lucity

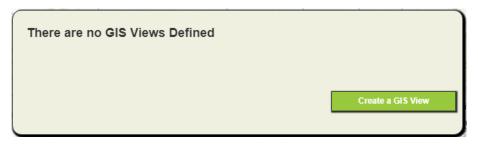
in the setting value, the gallery will only show web maps or basemaps with a tag of "lucity" applied.

This search string is not limited to tags, it can include groups in the query string as well. For more information on configuring a custom search criterion, review the <u>ArcGIS Online reference for searching</u>.

GIS Views

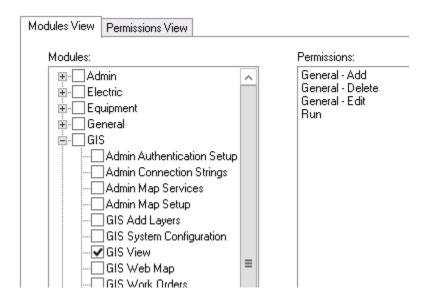
GIS Views are the name we have given the tab which contains the map and the full GIS web tool suite. A GIS View is comprised of a Map (Basemap or Web map or Basemap and Lucity Legacy Map), a collection of tools, and a collection of map components (legend, table, etc.).

If you do not have any GIS Views, when you first open the map, you will be prompted to create one (if you have permissions to create GIS Views, otherwise you will be prompted to have your administrator create one).



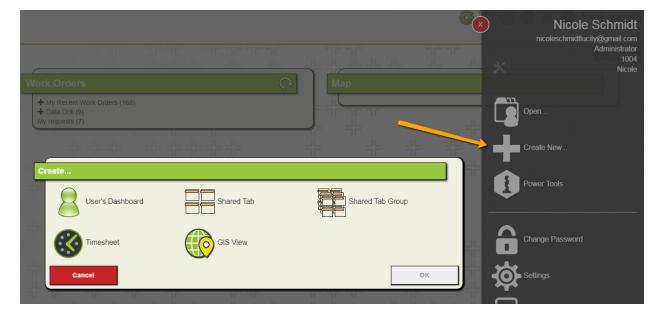
GIS View Design

A GIS View must have a name and it may also have a description. Only users with General – Edit in the GIS View module in security can edit views.

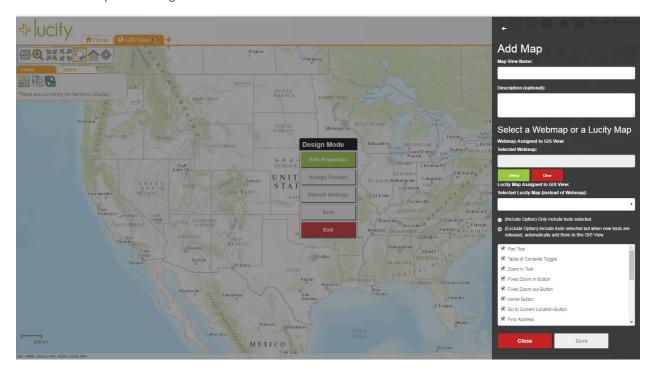


Creating a new GIS View

To create a new view, from the user admin pane, select "Create New >>GIS View"

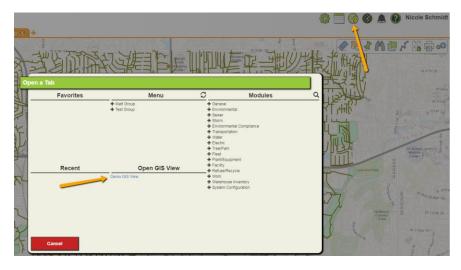


The view will open in design mode



Editing an Existing View

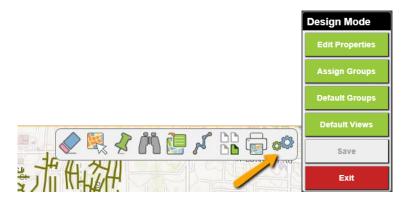
To edit an existing view, either open that GIS View from the menu, or from the GIS Map button on the widget bar.



Alternately, or if it is not available through the menu or widget bar, the GIS View can be opened from the user admin pane ("Open>>GIS View")



Once in a view, click the Design Mode icon to start editing the GIS View. And click the Edit Properties on the Design Mode menu:



Notes:		 	

The Edit Map dialog will appear:

Eric Da	
Edit Map	
Map View Name:	
Sewer Map	
Description (optional):	
Map of Sewer Features	
Select a Webmap or a Lucity	
Map	
Webmap Assigned to GIS View: Sewer Map	
Selected Webmap:	
Sewer Map	
Select Clear	
Lucity Map Assigned to GIS View: Sewer Map Selected Lucity Map (instead of Webmap):	
Selected Lucity map (instead of Webinap).	
	Notes:
Auto-generate popup for layers *Changes will take effect	
next time GIS View is opened	
 (Include Option) Only include tools selected. (Exclude Option) Include tools selected but when new tools 	
are released, automatically add them to this GIS View.	
Pan Tool	
▼ Table of Contents Toggle	
☑ Zoom in Tool	
✓ Home Button	
☑ Go to Current Location Button	
Close Save	

Map View Name and Description

A GIS View must be given a unique name. The name is what will be displayed to the user when selecting from a list of GIS Views.

The Description is optional and is used to provide more information about the GIS View.



Select a Webmap or a Lucity Legacy Map

A GIS View will have a web map assigned or a Lucity Map assigned. Users can change what is displayed on the fly using the Swap Web map and Swap Lucity map tools in the table of contents.

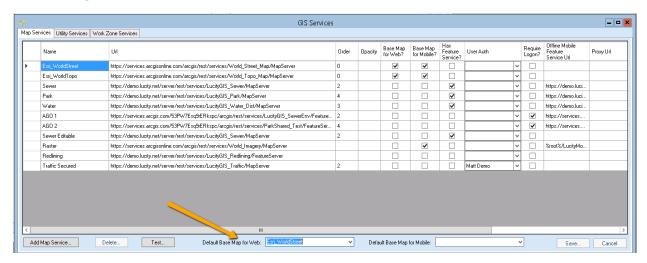
If you do not want users to change web maps or lucity maps, you can remove the tools, as described below. If you want to allow users to swap web maps and lucity maps but do not want them to be able to persist their changes, revoke the General – Edit permission in GIS Views.

Note: If you are not in design mode for the map, web map and lucity map swaps are not persisted. But if you open the GIS view designer and save, your changed web map or lucity map will be persisted with the GIS View.



Default Basemap

If you are using web maps, the basemap will always be determined based on the web map being loaded. If you are using Lucity maps, the default basemap is calculated as follows. If the default basemap for web is configured here:

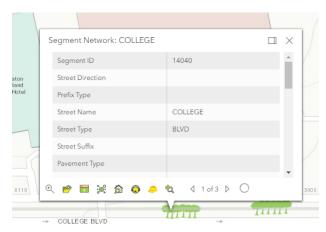


It will use this basemap. If not, and if the user is logged into portal, it will use the default basemap configured in the portal Organization settings.

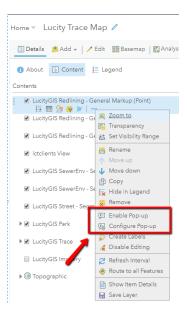
If the user is not logged into portal, the default basemap will be the Esri "grey" basemap.

Auto-generate Popups

Popups is a term used in the webmap to refer to the dialog that appears when a feature is clicked in the map. Popups typically show the attributes for a feature in the map.



The template for a popup is defined on a per layer basis. For Esri webmaps, popup templates are configured and saved with the Esri webmap.



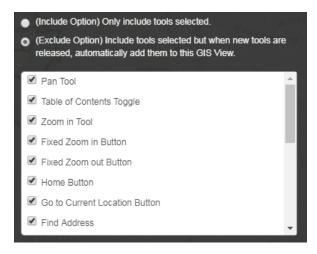
For Lucity Legacy maps or Esri webmaps that contain layers that don't have a popup template defined, you can enable a GIS View setting that will automatically create a default popup template for layers:

Auto-generate popup for layers *Changes will take effect next time GIS View is opened

When a GIS View loads, if a layer in the map doesn't have a popup template defined and the autogenerate popup setting is enabled, then a default popup template showing all GIS attributes is created and assigned to the layer. Otherwise, no popup template will be created for that layer, and users will not be able to "identify" features from that layer in the map.

Configuring Tools

Each view can be configured with a distinct list of tools. There are 2 options when managing tools in a GIS View.



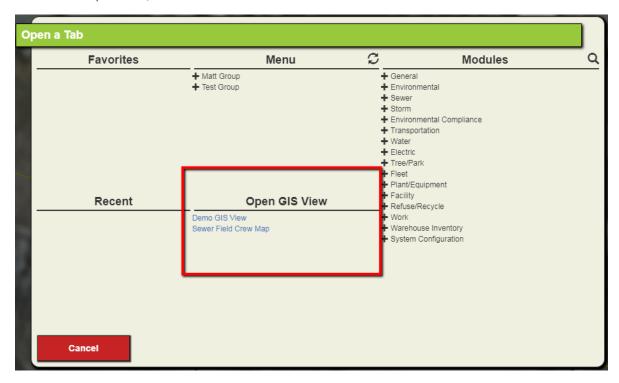
The "include" option allows you to specify a list of tools that are in the GIS View, and even after major upgrades which add new tools to the available list, only the tools you originally specified will be available for the user.

The "exclude" option allows you to specify a list of tools in the GIS View, but after major upgrades with this option selected, users will automatically have access to the new tools.

In both cases, you will select or "check" all tools you want available.

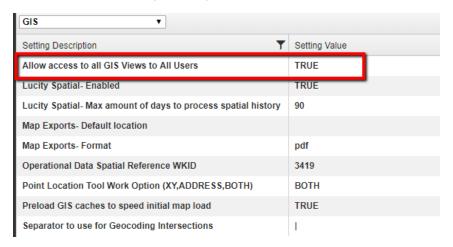
Configuring GIS Views for the Menu

New for Lucity 2017r2, GIS is available from the menu:



Notes:	 	 	

If the System Setting for "Allow access to all GIS Views to All Users" is TRUE, then all GIS Views you create will automatically show up in this list for all users. This is the default setting.



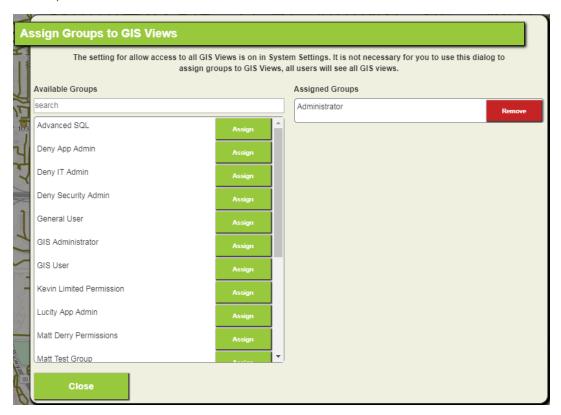
If this is false, only users who have been assigned the GIS View will see it in the menu. To assign a user a GIS View, you will assign their default rules group to the view.

Open the GIS View in design mode and select Assign Groups



Notes:		

Groups can be assigned to more than one GIS View because this dialog only controls what GIS Views show up in the list of available GIS Views in the menu.



Changes in this dialog are immediately saved.

Defining Selectable Layers in the GIS View

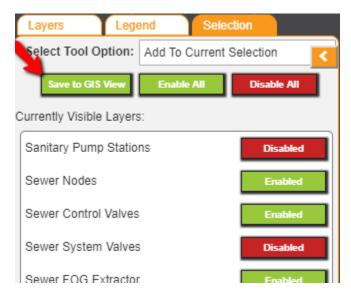
By default, all layers in a GIS View are selectable. That means that whenever the map selection tool is used all features from all layers are queried and included in the selection results. Users can choose to exclude certain layers from the map selection. Based upon the user's permissions they also have the option to save the layer selectability setting to the GIS View, so it is shared with all users that use that GIS View.

An administrator may also decide to configure which layers should be selectable and save that setting with the GIS View.

Notes:		

To save layer selectability:

- 1. Open the GIS View
- 2. In the Table of Contents, switch to the Selection tab



3. Clicking the Enabled/Disabled button following the layer toggles if the layer is selectable or not. After making the desired changes, click the Save to GIS View button for the layer selectability to be saved to the GIS View.

Notes:			

Default GIS View

Users can be assigned access to multiple GIS Views. Since a user may have access to more than one GIS View, you may want to further define when a specific GIS View should be opened by default.

Logic used to determine which GIS View is opened

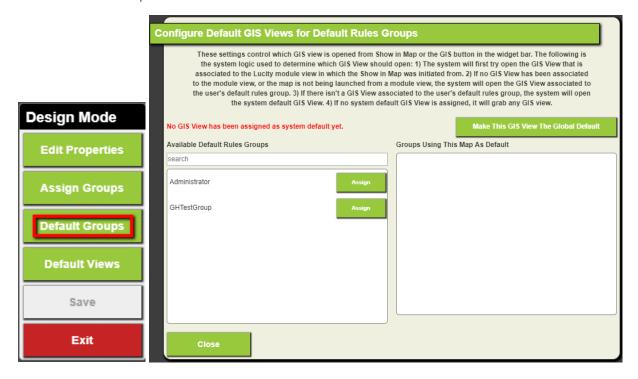
When the webmap is opened using the Show in Map tool the following logic is employed to identify which GIS View should be used:

- 1. The system will first try and use the GIS View that is associated to the Lucity module view in which the Show in Map button was clicked.
- 2. If no GIS View has been associated to the module view, or the map is not being launched from a module view, the system will open the GIS View associated to the user's default rules group.
- 3. If there isn't a GIS View associated to the user's default rules group, the system default GIS View will be used.
- 4. If no GIS View has been assigned the system default, a random GIS View will be used.

Notes:		

Configuring Default GIS Views based on Groups

To configure what GIS Views are opened by default for a user, open the GIS View in design mode and select "Default Groups".



This dialog will tell you what view is currently the default system wide GIS View and will allow you to set the current GIS View to be this default.

No GIS View has been assigned as system default yet.

Make This GIS View The Global Default

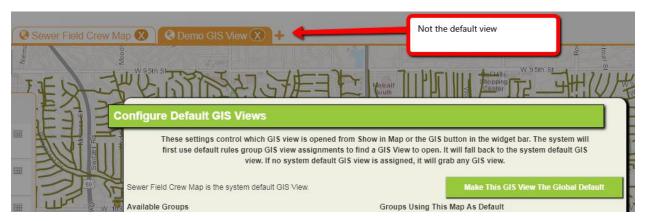
After clicking "Make this GIS View the Global Default" the display will change as follows:

Configure Default GIS Views for Default Rules Groups

These settings control which GIS view is opened from Show in Map or the GIS button in the widget bar. The following is the system logic used to determine which GIS View should open: 1) The system will first try open the GIS View that is associated to the Lucity module view in which the Show in Map was initiated from. 2) If no GIS View has been associated to the module view, or the map is not being launched from a module view, the system will open the GIS View associated to the user's default rules group. 3) If there isn't a GIS View associated to the user's default rules group, the system will open the system default GIS View. 4) If no system default GIS View is assigned, it will grab any GIS view.

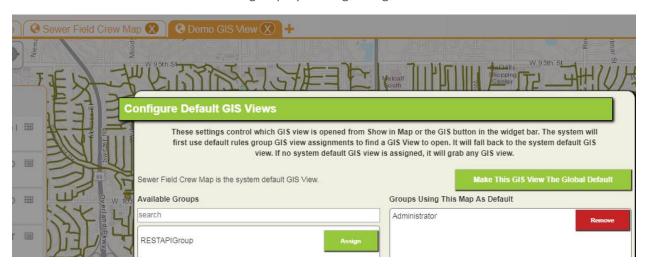
This GIS View is the system default GIS View.

And if viewing this dialog from a GIS View that is not the default:

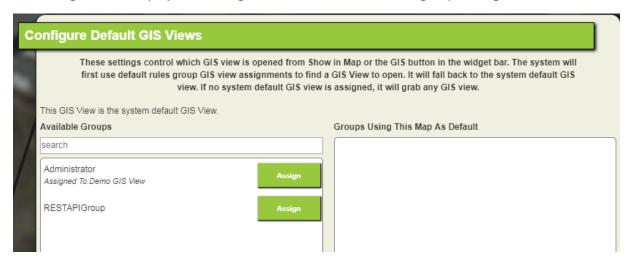


Within this dialog, you can assign a different GIS View for different users using their Default Rules Group.

For example, this Demo GIS View is not the global default map but I can make it the default map for users in the Administrator default rules group by clicking "Assign".



This dialog will also display the existing GIS View that a default rules group is assigned to:



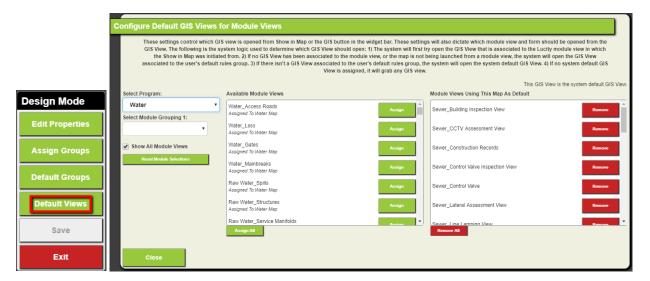
These changes are automatically saved.

Configuring Default GIS Views based on Module View

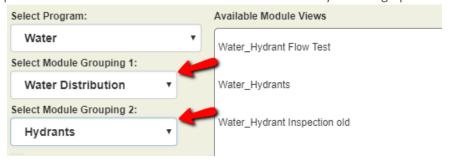
With 2018r2 you can assign a GIS View to a Lucity Module View. This assignment will be used in the following situations:

- When using the Show in Map tool in the Lucity module view. The webmap will open the GIS View that has been assigned as the default to the current Lucity module view.
- In the Lucity webmap when a tool requests to open a Lucity module view. The webmap will open the Lucity Module View that has been assigned as the default to the current GIS View.
- In the Lucity webmap when a tool requests to open a Lucity form. The webmap will open the default form associated to the Lucity Module View that has been assigned as the default to the current GIS View.

To assign Lucity Module Views to a GIS View, open the GIS View in design mode and select "Default Views":



1. To start assigning module views to the current GIS View, select an item from the *Select Program* dropdown list. You can further filter the list of modules by selecting optional module groupings:



- 2. All the modules that are part of that program/grouping that are not currently assigned to this GIS View will be listed under the Available Module Views.
 - a. Note: A Module View can only have one default GIS View. The active default GIS View for a module view will be listed under the module view name.



3. To assign the current GIS View as the default for a module view, click the Assign button next to the module view.

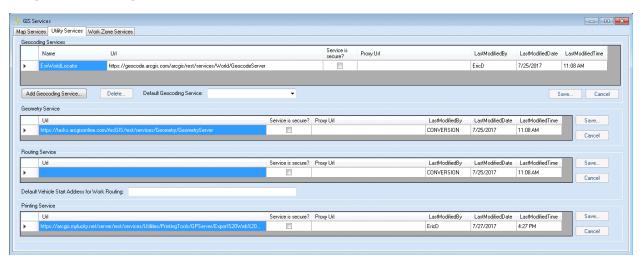
Note: Once you assign the module view to the current GIS View, it will automatically be removed from the Available Module Views section and will appear under the Module Views Using This Map As Default list.

4. To remove the current GIS View as the default for a module view, click the Remove button next to the module view under the Module Views Using This Map As Default section.

Notes:			

Utility services in Lucity Admin

There are still several services which must be configured in the Lucity Admin program even if you are using the Portal Integration.



Geocoding Service

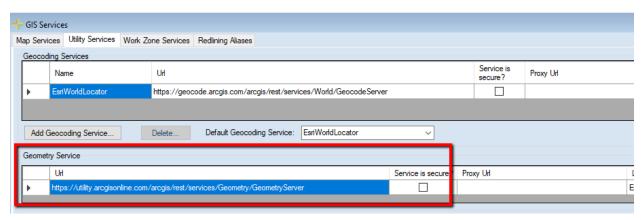
A geocoding service is required for searching for an address or for reverse geocoding address points from the web map. The webmap will use the geocoding service that has been designated the Default Geocoding Service in Lucity:



Notes:		

Geometry Service

The geometry service is required. It is used to convert between coordinate systems to properly render data in the GIS Map.

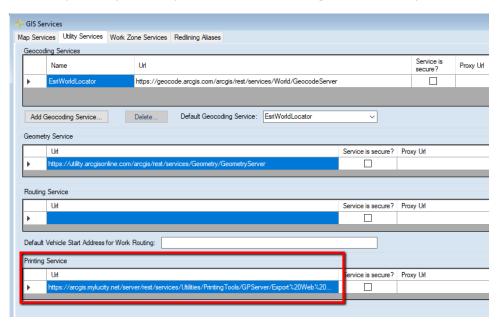


Routing Service

Not used

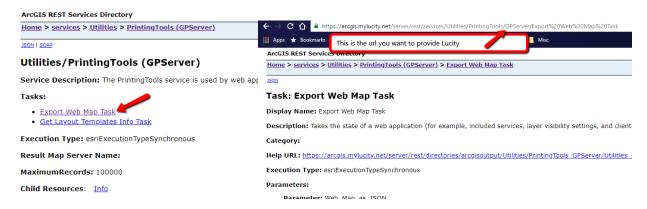
Printing Service

This is required if you want your users to be able to generate PDF exports of the GIS Map for printing.



Notes:	 	 	

Note: You need to specify the url to the Export Web Map Task of your print service:



The printing service deserves some special attention. The Printing service operates in coordination with your other GIS Services. This means that the printing service must be able to access the services that you want to print. If you have your services on a local intranet server, you cannot use the Printing service provided in ArcGIS Online.

This may mean you choose to use ArcGIS Online for your portal (and possibly some of your other utilities services) but you may need to use the Printing Service on your own 10.4+ ArcGIS Server. If you are not on ArcGIS 10.4 or higher and are using a local private GIS server inaccessible to ArcGIS Online hosting servers, you will be unable to print maps.

Module Spatial Data

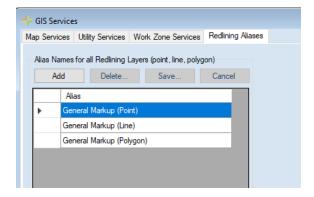
The Module Spatial Data tool in the webmap utilizes Lucity Spatial has been present for a long time, but not all clients may have had it configured. It indexes features in the Lucity database so that we can rapidly render them on the map. The Lucity spatial service is the reason that we can render work order locations much more rapidly in the GIS Map. These modules benefit from the Lucity spatial indexing and allow data to be loaded into the GIS Web Map:

- Work: Requests, Work Orders, PM/Templates, Master Project Management, Sub Project Management, Work Permits
- Sewer: PACP Inspections, TV Inspections, Smoke Testing, Building Inspections, Sewer Overflows
- Storm: PACP Inspections, TV Inspections
- Water: Water Flushing Routes, Mainbreaks (distribution, recycled, raw)
- Street: Street Routes, Sidewalk Inspections

There is a session dedicated to Lucity Spatial discussing how to enable and configure the settings.

Redlining

Redlining is a set of tools used for creating, editing, and deleting point, line, and polygon redlining features. The redlining tool is enabled when there is at least one layer in the map that has an alias that is listed in the Redlining Alias List found in GIS Services of the Lucity Administration Tool.



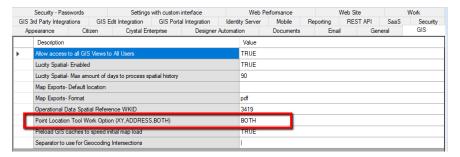
Note:

- When the redlining session initiates, the visibility for all redlining layers in the map will automatically be turned on.
- Only one redlining layer of each type (point, line, polygon) is allowed in the map at one time.
- The redlining tool is disabled during an active measuring session. Close the measure toolbar to enable the redlining tool.

Point Location Tool

The point location tool records the x/y, lat/long, and the reverse geocoded address for a point on the map. The x/y values and/or reverse geocoded address can later be attached to a request, work order, or pm/work template.

Starting with 2018r2, there is a system setting that indicates what information from the Point Location Tool result, should be included when creating a request, work order, and/or pm/template.



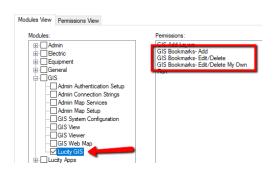
Note:

- XY- The x/y of the point location tool will be used when creating the request/wo/pm.
- ADDRESS- The reverse geocoded address of the point location tool result will be used when creating the request/wo/pm. In the event the reverse geocode didn't calculate a valid address then the x/y will be used.
- **BOTH-** Both the x/y and the reverse geocoded address of the point location tool result will be used when creating the req/wo/pm. In the event the reverse geocode didn't calculate a valid address then only the x/y will be used.

Bookmarks

Bookmarks are essentially saved areas of interest as a map extent (xmin, ymin, xmax, ymax, wkid). Bookmarks are saved to the Lucity database and can be shared among users within the Lucity webmap and ArcGIS Pro add-in. Future releases may expand the sharing capabilities with Lucity mobile.

There are a new set of permissions that control if a user can create, edit, and delete bookmarks. These permssions are found under the LucityGIS grouping.



Notes:			

Lucity Dashboard Map

Dashboard maps use the same web map and Lucity maps available in the full GIS View. Configuring dashboard maps is similar to a GIS View.

