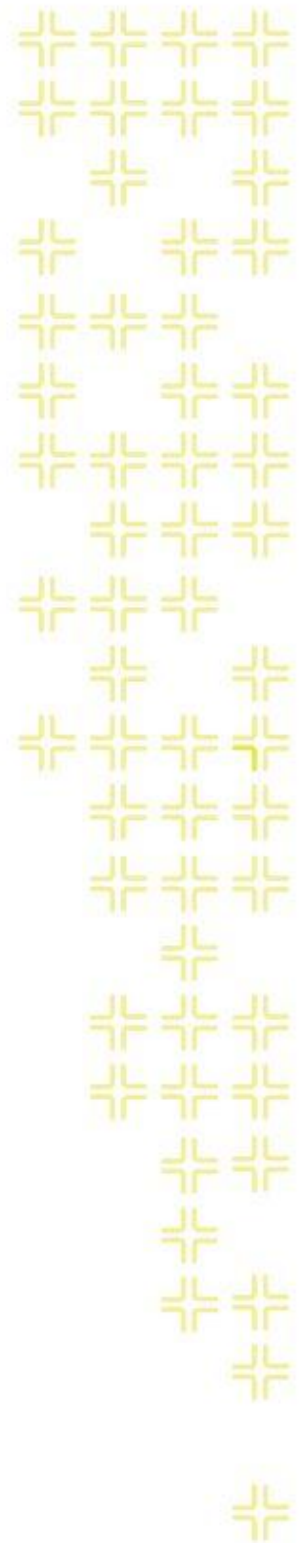




TRAINING GUIDE

GIS Admin for Web and Tablet Map



GIS Admin for Web and Mobile Maps

In this session, we'll cover the tools necessary to properly configure Lucy to work with your GIS environment. We'll give you information about the configuration and settings necessary to run the Lucy web and mobile maps.

Table of Contents

Introduction	2
Lucy Administration Tool.....	3
GIS Map Services.....	3
Redlining Services	5
Editable Services	6
Testing Service Connection.....	7
GIS Map Setup.....	8
Assign Maps to Groups	8
Logic for determining which web map will open for a user	9
Create/Edit Map Templates	10
System Settings	12
GIS Routing Tab.....	12
GIS Web Tab.....	13
Lucy Security Program	15
Logic for determining which web map will open for a user	15
Assign a user to a default group	16
Assign permission to a default group	17
ArcMap	18
Lucy Alias Import	18
Create Base Map Thumbnails.....	19
Troubleshooting Techniques.....	20
Clear Lucy caches	20
Clear Browser cache	21
Clear Local Application Storage	23
Check Lucy Web Map Log	25
Error log.....	25
Feature Layer Details.....	26

Introduction

Some system configuration and setup is required prior to using the web maps available with Lucy Web, Mobile and Tablet. This configuration occurs in the Lucy Administration tool, ArcCatalog, ArcMap, and ArcGIS Server.

Lucy Administration

- Setting up map and/or feature service connection info
- Creating map templates
- Specify map and/or feature service connection info
- Configure system settings

Lucy Security

- Assign users to default groups
- Verify user/group permissions grant access to GIS Web Map

ArcCatalog

- Associate map/feature services for feature classes
- Feature class alias associations

ArcMap

- Alias Name import

Before you can configure web maps to use in the various Lucy environments, you must first have the basic Lucy GIS configuration complete. Information on setting up the initial Lucy configuration is provided in the Lucy GIS Admin Tools documentation.

The following pages describe the above steps in further detail.

Lucy Administration Tool

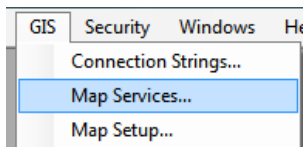
The Lucy Administration tool (Lucy.Admin.exe) is used to configure various GIS settings used with the Lucy web maps. This .exe can be found in your local workstation \bin directory or can be accessed by the Start>>All Programs>>Lucy>>Lucy Administration Tools

GIS Map Services

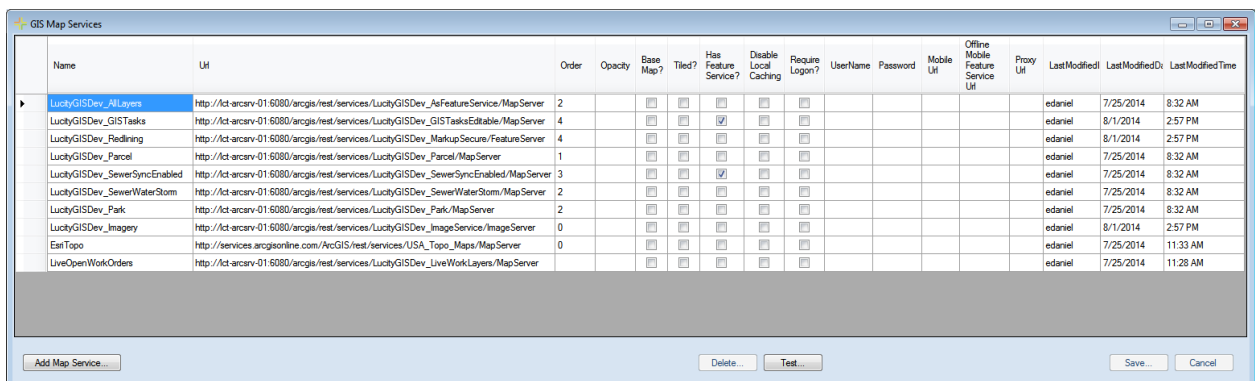
The GIS Map Services module is used to store the services information used with the web maps. These include map services that have your operational data, redlining feature services, base map services, and any other map and/or feature services that you want included in your various web maps.

To add/edit/delete map services:

1. In the Lucy Administration tool click on GIS>>Map Services



2. The following dialog will appear allowing you to edit existing services, add new services or delete services.



- **Name:** A unique name for the service. This is used to identify the service during setup.
- **URL:** The URL of the service, or path to a local map package. This must include /rest after ArcGIS.
 - In ArcGIS 10.x the service name is case sensitive
- **Order:** The order in which map services will appear when used together. Lower numbers will appear underneath higher numbers. Base map services will always be on the bottom.
 - The Order can be overwritten for individual maps in Map Setup
- **Opacity:** Controls the opacity of this service
- **Base Map?:** Mark whether a layer should be used as a base map. All layers marked as a Base map will be available to all users in the base map selection tool in the webmap.
 - This functionality does not apply to Lucy mobile applications.

- Base maps must be either a Tiled, Image, or Bing Map service
- **Tiled?:** Mark whether the service is tiled. Tiling allows multiple concurrent requests and cached tiles perform faster.
- **Has Feature Service?:** This setting indicates if the map service has a corresponding feature service. This would be the case if the map service had the Feature Access capability enabled on it.
 - This functionality does not apply to Lucity mobile applications.
- **Disable Local Caching:** Prevents the mapping tools from using locally cached data. They will always request the latest data from the server.
- **Require Logon?:** If the service is a secured service it should have a username and password assigned. Mark this field to force users to enter their own login credentials as an added layer of security.
 - This functionality only applies to Lucity mobile applications.
- **Username:** If the map service is secured enter a user name that has permission to access it. This is required for secure services that contain Lucity Operational Data.
 - If no username/password is provided users will be required to login
 - This functionality only applies to Lucity mobile applications.
- **Password:** Enter the password for the User Name.
 - This functionality only applies to Lucity mobile applications.
- **Mobile Url:** If this service will be used by Lucity Mobile use this field to enter an alternative URL for the service that is available externally.
 - This functionality only applies to Lucity mobile applications.
 - This map service should still contain the same data as the service listed in the URL field. It is not intended to deploy different map services for the same item.
- **Offline Mobile Feature Service URL:** If this service is part of a map that users might pull down to the Lucity Mobile app in Offline mode this field allows you to enter a URL for an alternative map service. Map services that are taken offline have several ESRI imposed restrictions. This setting allows you to use an unrestricted map service in your webmap/mobile map but then when users take the map offline it would automatically switch to the alternative service that you designed in-line with ESRI's offline restrictions.
 - This functionality only applies to the Lucity mobile Android application
- **Proxy URL:** Clients using a proxy can provide the proxy URL here.

Redlining Services

All the Lucity web map applications support basic redlining functionality. To enable redlining the service that contains your redlining layers must be added to the GIS Map Services module.

1. When adding redlining services, be sure to provide the URL to the FeatureServer in the URL field not the MapServer.
2. Do not mark the Has Feature Service option. The fact that you are specifying the URL to a FeatureServer indicates that this is a Feature Service.

Example:

Name	Url	Order	Opacity	Base Map?	Tiled?	Has Feature Service?	Disable Local Caching	Require Logon?	U
LucyGISDev_AllLayers	http://lct-arcsrv-01:6080/arcgis/rest/services/LucyGISDev_AsFeatureService/Map Server	2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_GISTasks	http://lct-arcsrv-01:6080/arcgis/rest/services/LucyGISDev_GISTasksEditable/Map Server	4		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_Redining	http://lct-arcsrv-01:6080/arcgis/rest/services/LucyGISDev_MarkupSecure/FeatureServer	4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_Parcel	http://lct-arcsrv-01:6080/arcgis/rest/services/LucyGISDev_Parcel/Map Server	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Notes: _____

[illegible]

Editable Services

Version 2014r2 allows you to configure services that can be used for editing in the Lucy web map. These services don't need to contain Lucy linked data, but if they do, special consideration needs to be given to the restrictions of editing Lucy linked data outside of the Lucy ArcMap editing environment.

1. Editing functionality is currently not available with the Lucy mobile applications.
2. When adding services that can be edited, be sure to provide the URL to the **MapServer** NOT the **FeatureServer** in the URL field.
3. Check the **Has Feature Service** option. This indicates that the map service specified in the URL field has a corresponding feature service.

Example:

Name	Url	Order	Opacity	Base Map?	Tiled?	Has Feature Service?	Disable Local Caching	Require Logon?	UserNa
LucyGISDev_AllLayers	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_AsFeatureService/MapServer	2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_GISTasks	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_GISTasksEditable/MapServer	4		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_Redlining	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_MarkupSecure/FeatureServer	4		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_Parcel	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_Parcel/MapServer	1		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_SewerSyncE	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_SewerSyncEnabled/MapServer	3		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
LucyGISDev_SewerWater...	http://lct-arcsv-01-6080/arcgis/rest/services/LucyGISDev_SewerWaterStorm/MapServer	2		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Special Considerations

- If editing Lucy linked data:
 - Lucy is not directly aware of the edits being made in the web map. **The Lucy database is not updated when you save your edits.** In order for Lucy to be updated with the edits made in the web map you **must do one** of the following:
 - Setup a GIS Scheduled Task (new functionality available with 2014r2) against the underlying feature classes.
 - or
 - In ArcMap, using the Lucy Editor Extension run the Force Sync tool on the features that have been edited.
 - Only basic editing tasks supported. Due to the nature of maintaining inspection and work history along with feature relationships the following edits are not supported and should be avoided in the web map:
 - Renumber (changing the FacilityID/CommonID value for an existing feature)
 - Delete (deleting an existing feature)
 - Split (splitting a sewer pipe, storm conduit, water pipe, or a street segment/subsegment/supersegment)
 - Merge (merging sewer pipes, storm conduits, water pipes, or street segments/subsegments/supersegments)

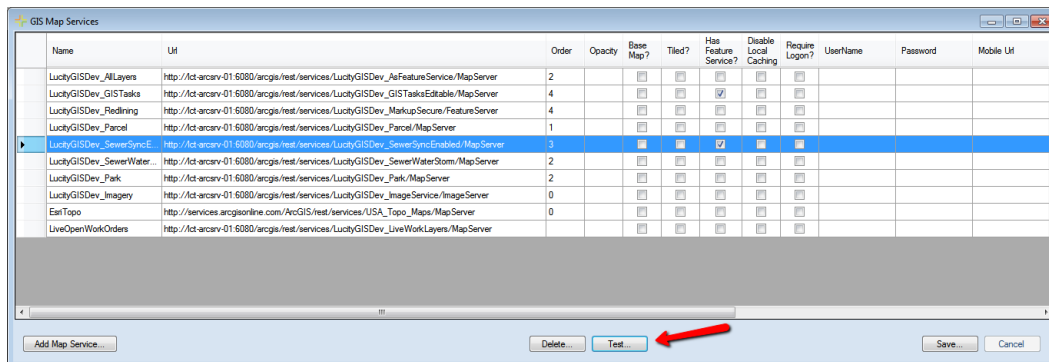
Testing Service Connection

The GIS Map Services module provides the ability to test the service connection. This tool is helpful in validating which layers in the service are recognized as being linked to Lucity. There are two connection tests that are performed:

1. Tests the connection method used by the Lucity webmap and SOE
2. Tests the connection method used by the Lucity Spatial Updater, Lucity GIS Tasks, and Lucity to GIS updates via a Feature Service.

To test a service connection:

1. Select the row(s) you wish to test, or if no rows are selected then a test will be performed against all services.
2. Click the Test button.



3. Once the service tests have been completed, a separate dialog will appear showing the results. If a connection to a service was successful, the results will list only the layers in that service that have been recognized as being linked to Lucity.

Example result:

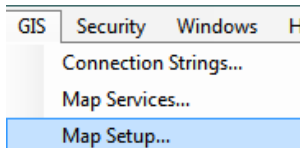


GIS Map Setup

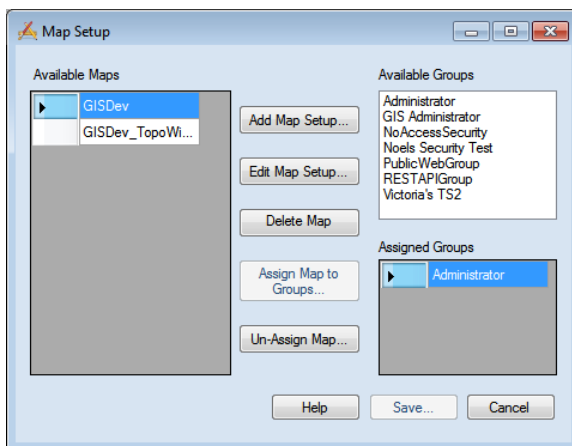
The GIS Map Setup module is used to create the templates used with the various Lucity web map applications. The GIS Map Setup provides the ability to specify template permissions, which services should be used and the order in which they should be displayed, disable any editing services, which redlining service should be used, an override to the default locator service, among other settings.

To add/edit/delete Map Setup templates:

1. In the Lucity Administration tool click on GIS>>Map Setup...



2. The following dialog will appear allowing you to add, edit or delete templates, along with assigning user groups to existing map templates.



Assign Maps to Groups

To assign maps to user groups

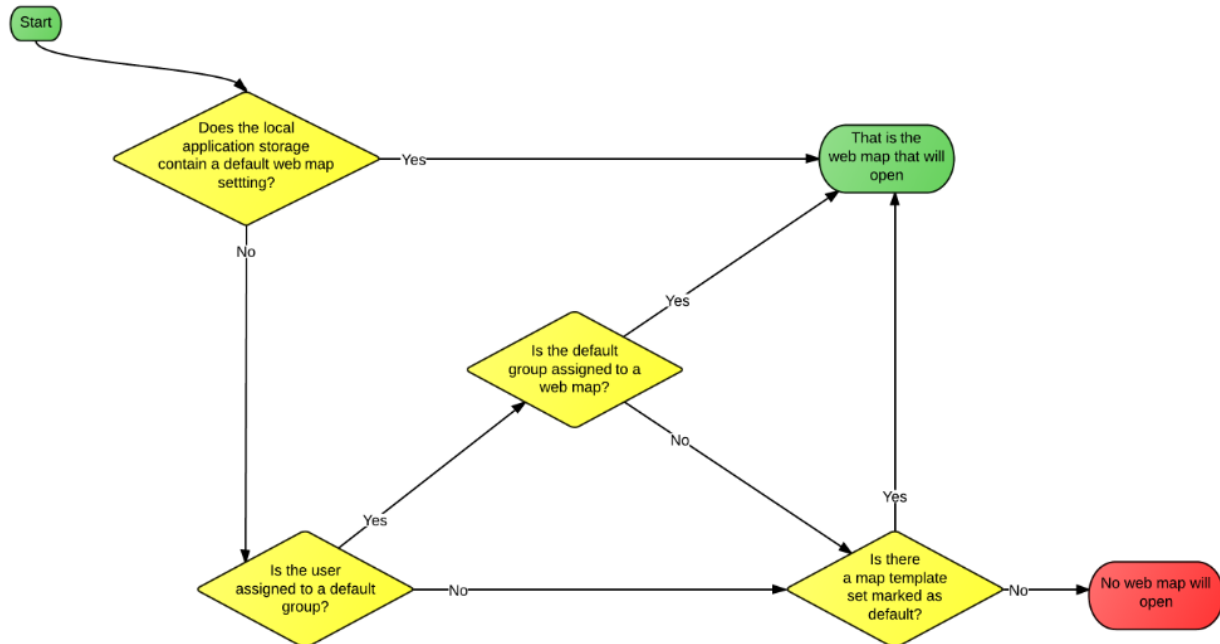
1. Select a map in the **Available Maps** list on the left-hand side of the dialog.
2. Highlight one or more groups in the **Available Groups** list on the right-hand side of the dialog.
3. Click the **Assign Maps to Groups** button in the center of the dialog

Note:

- The only groups that will appear in the Available Groups list are those that have been assigned as a Default Group in the Lucity Security Program
- While each map can be assigned to multiple user groups, each group can only be assigned to one map. So if the Administrator group is assigned to the Water Map, and later assigned to the Traffic Map, the Administrator group will have access to the Traffic Map only.

Logic for determining which web map will open for a user

Lucity Web Map- Which map will open for a user?



Notes: _____

Create/Edit Map Templates

To edit an existing map or create a new one:

1. Click the **Add Map Setup** or **Edit Map Setup** buttons to open the GIS Map Edit screen. The following dialog will appear:

GIS Map Edit

Name: GISDev | ☒ Use as Default Map ☐ Enable Local Services

Geocoding
Default Geocoding Url: <http://demo.lucity.net/arcgis/rest/services/GeoLocate/GeocodeServer>
Geocoding Url (if different than default): http://lct-arcsv-01-6080/arcgis/rest/services/LucityGISDev_Locator_stSegment/GeocodeServer

Redlining
Select the feature service that contains the redlining layers:
Enter the feature layer index for the three redlining layers:
LucityGISDev_Redlining | Point index: 0 | Polyline index: 1 | Polygon index: 2

Available Web Services
LucityGISDev_AllLayers
LucityGISDev_Parcel
LucityGISDev_SewerWaterStorm
LucityGISDev_Park
LucityGISDev_Imagery
EastTopo
LiveOpenWorkOrders
Add >>

Available Editable Services
LucityGISDev_GISTasks
LucityGISDev_SewerSyncEnabled
Add >>

Available Local Services
Add >>

Services to Display in Map

Name	Url	Order	Disable Identify	Disable Edits	Order Override
LucityGISDev_Imagery	http://lct-arcsv-01-6080/arcgis/rest/services/LucityGISDev_ImageService/ImageServer	0	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
LucityGISDev_Parcel	http://lct-arcsv-01-6080/arcgis/rest/services/LucityGISDev_Parcel/MapServer	1	<input type="checkbox"/>	<input type="checkbox"/>	
LucityGISDev_SewerWater...	http://lct-arcsv-01-6080/arcgis/rest/services/LucityGISDev_SewerWaterStorm/MapServer	2	<input type="checkbox"/>	<input type="checkbox"/>	
LucityGISDev_GISTasks	http://lct-arcsv-01-6080/arcgis/rest/services/LucityGISDev_GISTasksEditable/MapServer	4	<input type="checkbox"/>	<input type="checkbox"/>	

Close

2. Edit the properties on the GIS Map Edit form as described below.
3. Once done click the Close button. This will take you back to the Map Setup dialog.
4. **To save your changes you must click Save on the Map Setup dialog!**

GIS Map Edit Properties

- **Name:** A unique name for the map template.
- **Use as Default Map:** Check this box if this should be the default map. The default map is automatically opened for all users that are not in a group assigned a map.
 - There can only be one default map
- **Enable Local Service:** Check this box if this is a template to be used with the Lucity GIS Viewer.
- **Default Geocoding URL:** This is **read-only** and is used to show the URL of the default geocoding service that is set in System Settings on the GIS Web tab.
- **Geocoding URL (if different than default):** Enter a URL here if the geocoding service used for this map will should be different than the default.
- **Redlining:** To enable redlining capabilities, select the feature service from the drop down that contains the point, line, and/or polygon redlining layers. Once the redlining feature service has been configured, enter the index of the point, line, and/or polygon redlining layer as it is listed in the service.

- This list only displays the feature services configured in the Map Services module. You first must provide the redlining feature service connection info Map Services.
- **Available Web Services:** Select all the services that need to be added to the map and click **Add**. Records will appear under the **Services to Display in Map**.
 - Do not add any map services that will be used as a base map.
- **Available Editable Services:** Select the web services that your users should be able to edit and click **Add**. Records will appear under the **Services to Display in Map**.
 - This list only displays map services that have been marked as editable via the Has Feature Service property in the Map Services module.
- **Services to Display in Map:** This grid shows all the services that will be loaded into the map. Additional properties can be assigned to each of the services:
 - **Order:** This column is read-only. It is used as a reference to show the default order in which the services will be loaded into the map. These values are defined in the Map Services module.
 - **Disable Identify:** Check this box to stop the identify tool from querying that service. Disabling Identify also disables the ability to select features in that service.
 - **Disable edits:** If you included an editable service in the map, but you don't want users to edit these features in this particular map- check the Disable Edits box to disable editing for the service in this map.
 - **Order Override:** This field can be used if you wish to change the order in which the services will be loaded for this particular map. Since the default order is set in the Map Services module, it is possible that more than one service has the same order assigned, so this field can be used to override the defaults.

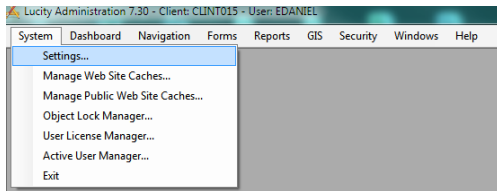
Notes: _____

System Settings

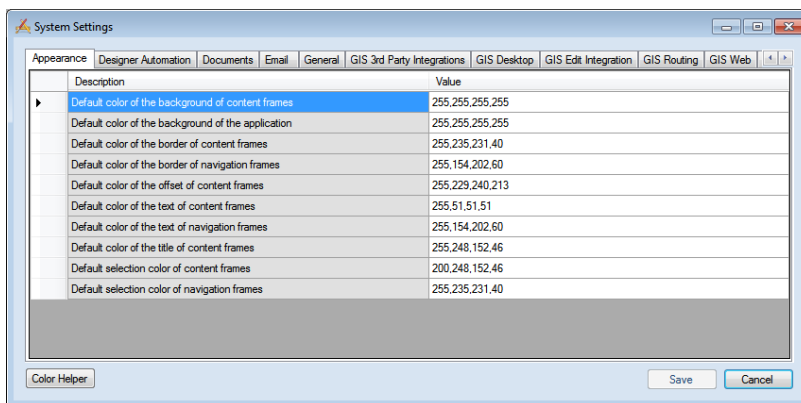
There are various settings that are needed for web maps used in the Lucy Web and Mobile applications.

To edit the system settings:

1. In the Lucy Administrator tool click System>>Settings.



2. The following dialog will appear:



3. The following pages go over the various settings found in System Settings dialog that impact the web maps used with Lucy Web and Mobile.

GIS Routing Tab

The GIS Routing tab of system settings contains the options used for the Lucy work routing tool found in Lucy web map. Note: This functionality does not apply to Lucy Mobile.

GIS Desktop	GIS Edit Integration	GIS Routing	GIS Web	Mobile	REST API	Settings with custom interface	TimeShe
Description		Value					
Default Vehicle Start Address for Work Routing							
URL for ArcGIS Vehicle Routing Network Analysis Service		http://tasks.arcgisonline.					

- **Default Vehicle Start Address for Work Routing:** Enter an address that the Routing tool can use as the start location. If no address is entered the first work order will be used.
- **URL for ArcGIS Vehicle Routing Network Analysis Service:** Enter the URL for a Network Analyst Service.

GIS Web Tab

The GIS Web tab of system settings contains the options used for web maps in both the Lucity web and mobile applications.

GIS Desktop GIS Edit Integration GIS Routing GIS Web Mobile REST API Settings with custom interface TimeSheet Web Performance Web Site Work									
	Description	Value							
▶	Automatically save redlining edits	FALSE							
	Comma separated criteria to use for a where clause if parcel layer is to be queried. Keywor...	ADG_ADR_BDG={BUILDING}.ADDRESS=%{STREETNAME}%'							
	Default Base Map Name								
	Default extent for Mercator basemaps xmin,ymin,xmax,ymax								
	Force the GIS Web Map to always open to the default extent	TRUE							
	Operational Data Spatial Reference WKID	2868							
	Schema name where the LiveData geodatabase repository is loaded								
	Separator to use for Geocoding Intersections								
	Street Address Geocoding Field	Street							
	URL for Geocoding Service or URL to parcel layer in map service	http://demo.lucity.net/arcgis/rest/services/GeoLocate/GeocodeServer							
	URL for Geometry Service	http://demo.lucity.net:6080/arcgis/rest/services/Utilities/Geometry/GeometryServer							
	Use an address layer for address queries instead of a geocoding service	FALSE							
	Use GIS Viewer instead of GIS Web for Show in Map	FALSE							

- **Automatically save redlining edits:** (Only applies to Lucity web map) Indicates if you want the redlining and editing tools to automatically save edits as they are being made. If set to FALSE, then the user is responsible for clicking the save button on the edit toolbar to commit the changes.
 - Due to the editing environment Lucity recommends that this be set to **FALSE**
- **Comma separated criteria to use for a where clause if parcel layer is to be queried.** **Keywords are {BUILDING},{STREETNAME},{STREETNAME2},{ZIP}:** (Only applies to Lucity web map) This is a template that the app can use when querying a parcel layer for information. This template should specify actual field names.
 - **Example:** This says the Building number is stored in the feature class in a field called ADDRESS and the Street name is stored in a field called STRNAME.
 - **ADDRESS={BUILDING} AND STRNAME='{STREETNAME}'**
 - There are four available Keywords
 - **{BUILDING}**
 - **{STREETNAME}**
 - **{STREETNAME2}**
 - **{ZIP}**
- **Default Base Map Name:** (Only applies to Lucity web map) Enter the name of the Map Service that should be the default base map. This name comes from the **Name** column of the GIS > Map Services screen. The Map Service referenced here must be marked as a base map.
- **Force the GIS Web Map to always open to the default extent:** (Only applies to Lucity web map) The webmap will not save the extent when it closes. Instead it will automatically open to the default every time it is opened.

- **Operational Data Spatial Reference WKID:** The WKID is the "Well Known Spatial ID" for the operational data layer. This spatial reference will be used by Lucity to record xy coordinates and any other spatial data.
- **Schema name where the LiveData geodatabase repository is loaded:** No longer used
- **Separator to use for Geocoding Intersections:** This setting allows agencies to specify which character their geocoding service uses as a separator character. By default this field is set to the | character.
- **Street Address Geocoding Field:** Which field name the geocoder is based on.
- **URL for Geocoding Service or URL to parcel layer in map service:** The URL for the geocoding or parcel services for finding addresses.
 - Mobile maps only support the geocoding service option.
 - If using a parcel service be sure to enter the URL for the map service and add the layer number to the end. So if the parcel layer is the 10th layer in the service the end of the url will look something like ...rest/services/baselayers/MapServer/10
- **URL for Geometry Service:** This is an ArcGIS Geometry service which is used for geometry operations in the map such as buffering and reprojection of coordinates. This is required for the webmap.
- **Use an address layer for address queries instead of geocoding service:** (Only applies to Lucity web map) Allows users to use a parcel layer instead of a geocoding layer.
- **Use GIS Viewer instead of GIS Web for Show in Map:** (Only applies to Lucity web map) Forces the Web show in map to launch the Lucity GIS Viewer, instead of the Lucity Web Map.

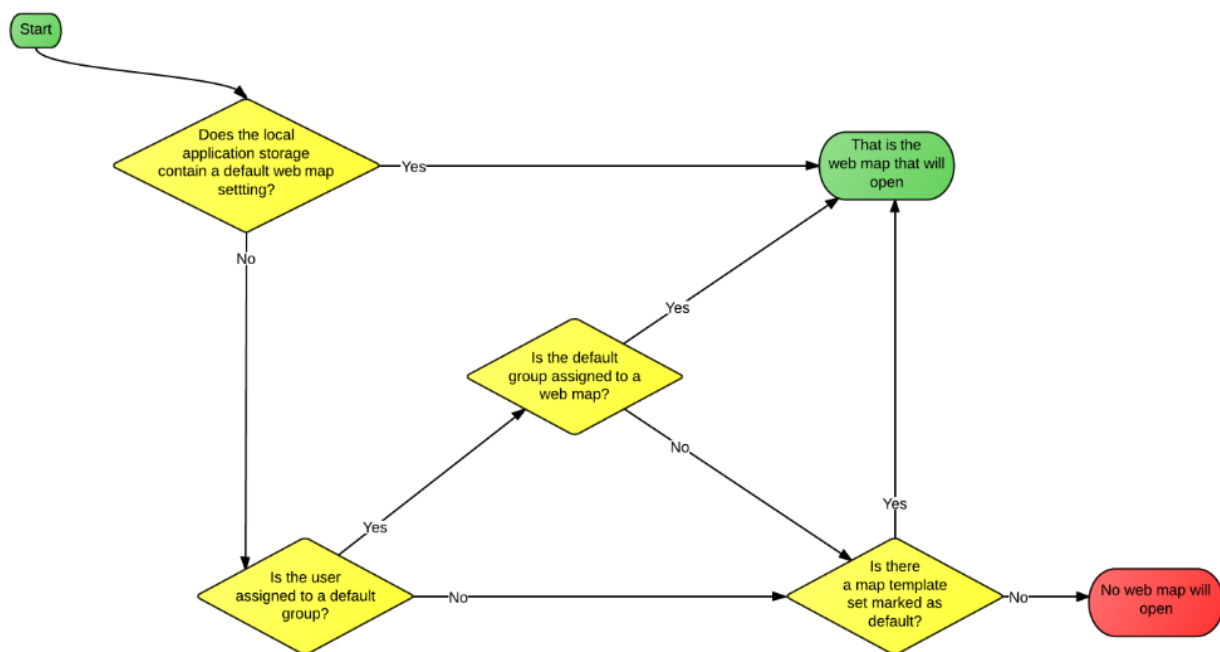
Notes: _____

Lucy Security Program

The Lucy Security program (Lucy.Security.exe) can be used to assign default groups to users. Default groups are necessary to assigning user access to the various map templates. This .exe can be found in your local workstation \bin directory or can be accessed by the Start>>All Programs>>Lucy>>Lucy Security

Logic for determining which web map will open for a user

Lucy Web Map- Which map will open for a user?

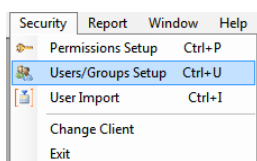


Assign a user to a default group

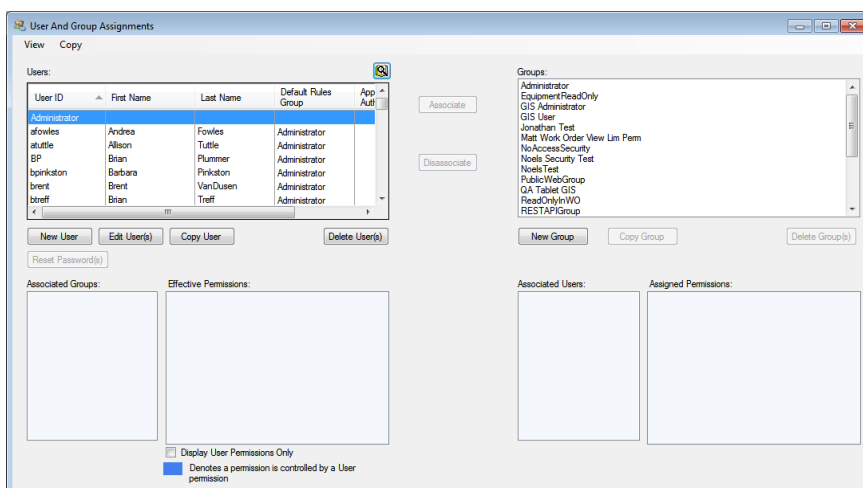
Since users are not directly assigned to map templates, but rather it is their default user group that determines which map template will be used it is important to make sure that a user has been assigned to the appropriate default user group.

To modify a default group for a user:

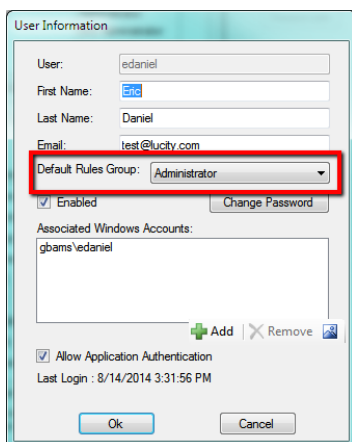
1. In the Lucity Security program click on Security>>Users/Groups Setup



2. The following dialog will appear allowing you to edit existing users and groups.



3. Click on the user and select Edit User(s), or double-click on the user. The following dialog will open:



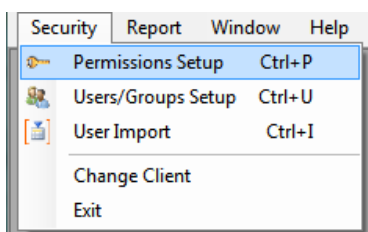
4. To assign the user to a default group, select a group from the Default Rules Group dropdown.
5. Click Ok to save changes.

Assign permission to a default group

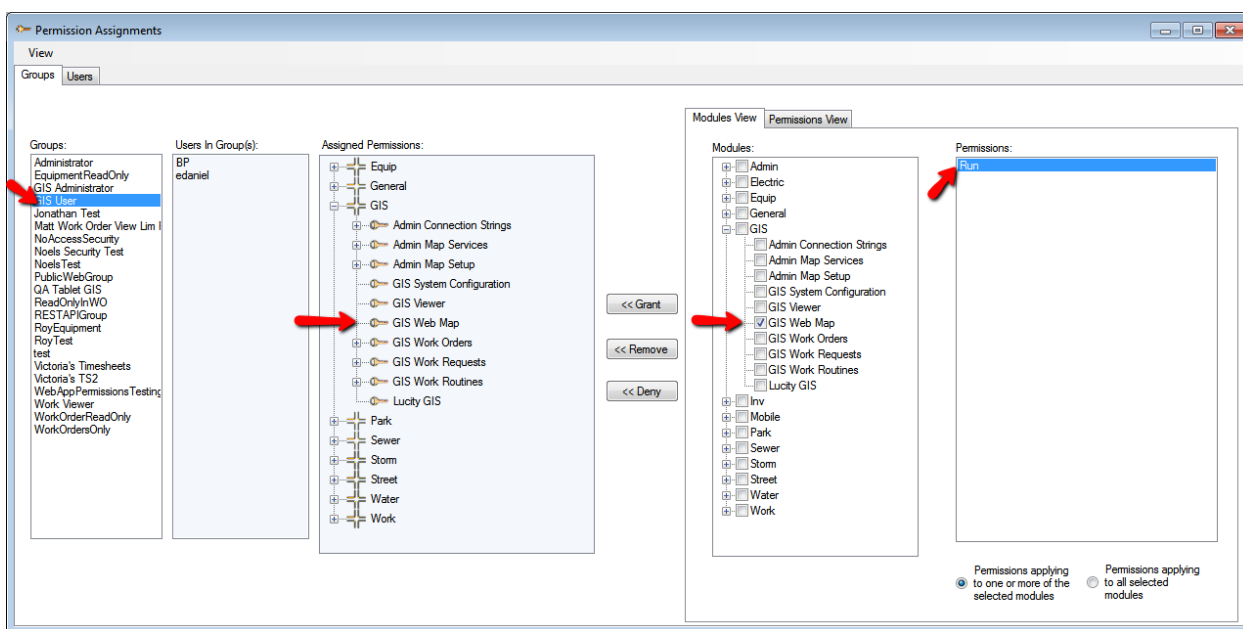
Since users are not directly assigned to map templates, but rather it is their default user group that determines which map template will be used it is important to make sure that default user groups have the permission to run the GIS Web Map.

To modify permissions for a group:

1. In the Lucity Security program click on Security>>Permission Setup



2. The following dialog will appear:



3. Select the default user group from the list.
4. Verify that under Assigned Permissions the group has the run permission for GIS Web Map. If not, select the Run permission and click Grant.
5. Repeat for all default user groups that have been assigned to a map template in UI Admin's Map Setup module.

ArcMap

There are a few tools provided with the Lucy extension in ArcMap that facilitate the setup/configuration of Lucy to work with the feature/map services.

Lucy Alias Import

In order for Lucy GIS to recognize a layer in a service as being linked to a Lucy module it must know the layer's alias as it is listed in the service. The Lucy Manager toolbar in ArcMap provides an Alias Import tool that facilitates the process of assigning alias names to Lucy linked feature classes. Along with associating alias names the tool also provides some basic validation that warns the user of issues that may cause the Lucy GIS tools to fail when interacting with the service.

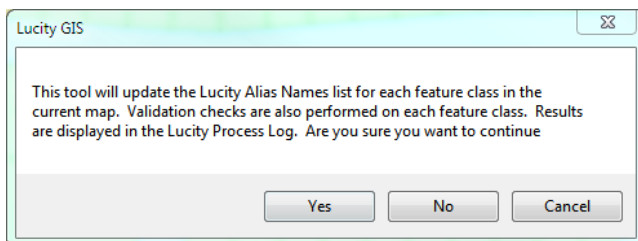
- It is strongly recommended that running the Lucy Alias Import tool be part of your routine when publishing services that will be consumed by any of the Lucy GIS tools and applications.
- Besides updating the alias configuration in Lucy, it also validates that each feature class linked to Lucy has the following fields:
 - OID, Shape, Lucy AutoID, FacilityID
- Each feature class can be assigned to multiple aliases, but each alias must be assigned to only one feature class.

To run the Lucy Alias Import:

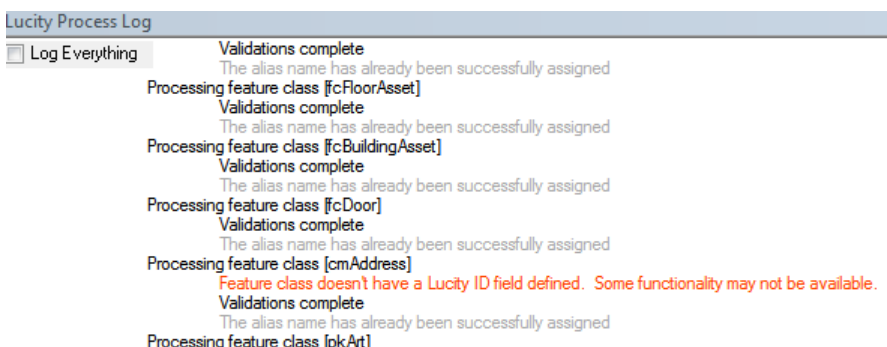
1. In ArcMap, prior to publishing a map/feature service from the .mxd you will want to run the Alias Import tool. On the Lucy Editor Toolbar click **Alias Import**.



2. You will receive the following prompt confirming that you are about to modify the alias names as they are defined in the Lucy GIS configuration.



3. The results are displayed in the Lucy process log.

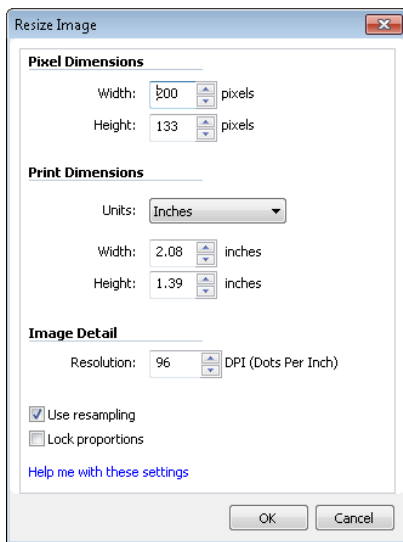


Create Base Map Thumbnails

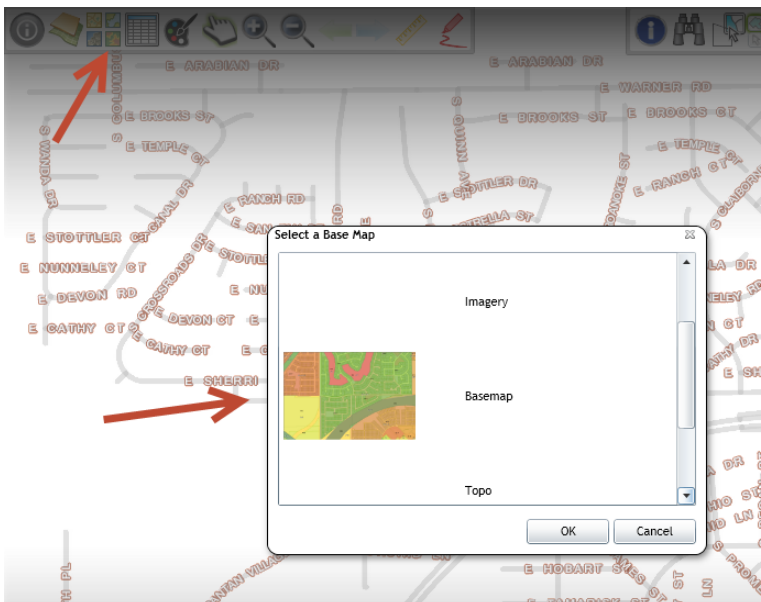
The Base Map tool in the Lucity web map allows users to switch what base map should be displayed in the map. This tool also provides the ability to display a small thumbnail image to help the user determine what data is represented in the base map. This is not required to use the Base Map tool, it is just adds that little bit of additional information in describing the base map.

To create a basemap thumbnail:

1. In ArcMap, open the .mxd that was used to publish the cached map service and capture screenshot within the Map Document window.
2. Resize the screen captured image to be 200 x 133 pixels. This is the recommended size.



3. Save the image as a PNG and name the image the same name as the map service into *inetpub\wwwroot\LucityWeb\ClientBin\GIS\BaseMapThumbnails*
4. Afterwards, you should see the new thumbnail when referencing the basemap.



Troubleshooting Techniques

In many cases when dealing with multiple solutions, troubleshooting can be somewhat of an issue. If experiencing issues or problems with the Lucy software, you can always contact Lucy support. However, there are a few things to check if you would like to troubleshoot issues on your own.

Clear Lucy caches

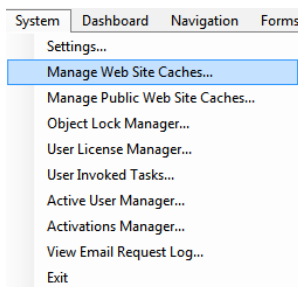
After changing GIS settings in Lucy that are used by the Lucy web maps, you should clear the Lucy caches. The following are some GIS changes that may require a clearing of the Lucy caches:

- Any change to feature class or field mappings made in the Lucy Geodatabase Configuration tool in ArcCatalog.
- Alias changes made by the Lucy Alias Import tool in ArcMap.
- System setting changes made in Lucy UI Admin tool.
- Changes to map/feature services and map setup templates made in Lucy UI Admin tool.

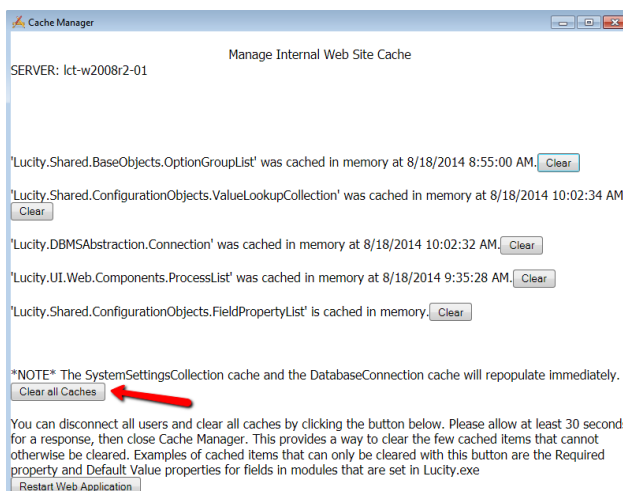
If you made a change to one of the above items, yet the change doesn't seem to have taken in the web map, then you should clear the Lucy cache to try and resolve the issue.

The following are the steps needed to clear the Lucy caches:

1. In the Lucy Administration tool click on System>>Manage Web Site Caches...



2. The following dialog will appear. You can clear individual caches; otherwise, to ensure all the GIS caches are cleared, simply click **Clear all Caches**.



3. Close out of UI Admin and reopen the Lucy web map to confirm your changes have taken.

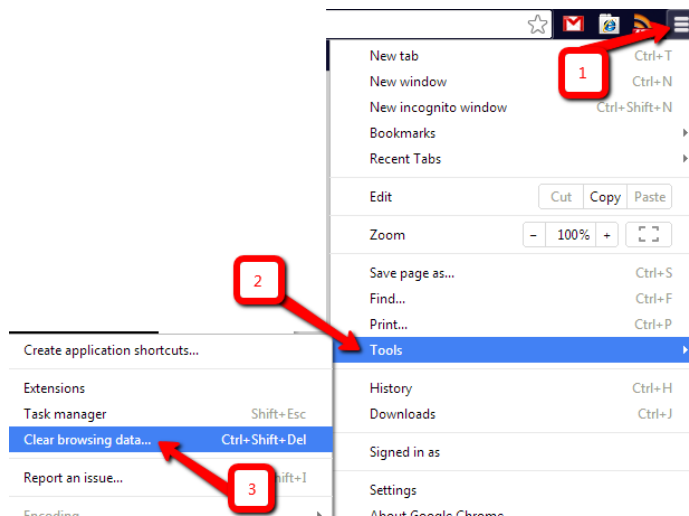
Clear Browser cache

If you changed the GIS settings in Lucity that are used by the Lucity web maps and you cleared the Lucity cache, but the changes still haven't taken in the web map, you may need to try and clear your browser cache.

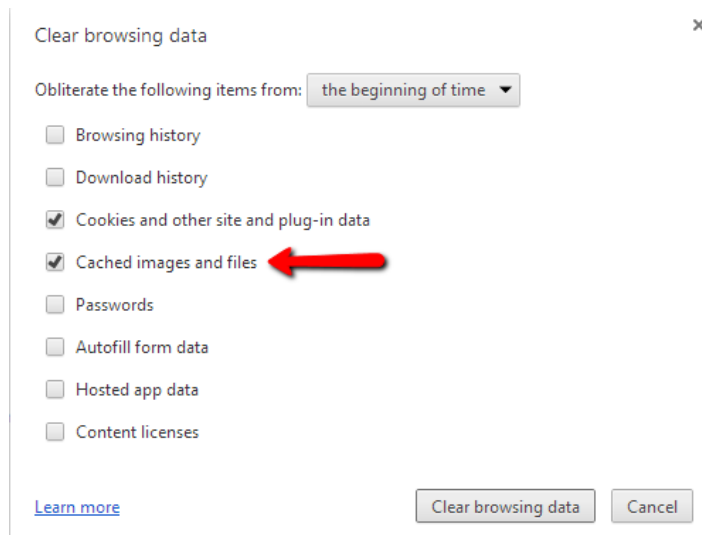
Obviously, how to clear your browser cache depends on which web browser you are using. Below are some examples for the common browsers:

For Chrome:

1. Close out of the Lucity web map, go to Settings>>Tools>>Clear browsing data...

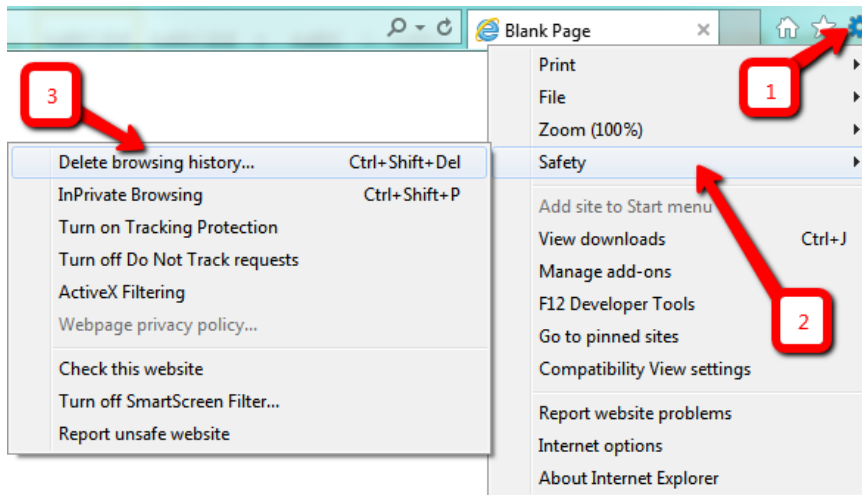


2. On the Clear browsing data form be sure that the **Cached images and files** option is checked. Click **Clear browsing data**.

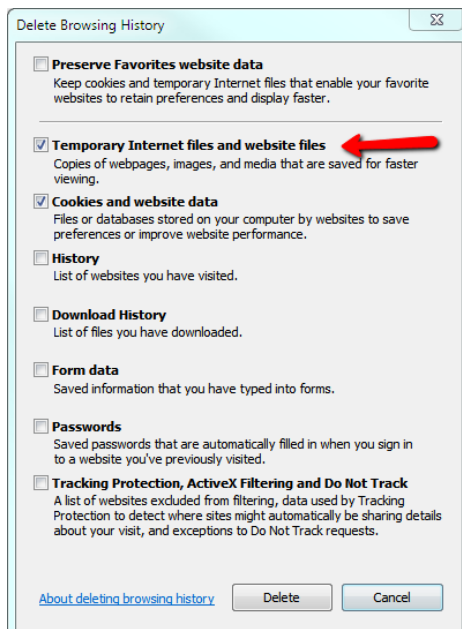


For IE:

1. Close out of the Lucy web map, go to Settings>>Safety>>Delete browsing history...



2. On the Delete Browsing History form be sure that the **Temporary Internet files and website files** option is checked. Click **Delete**.



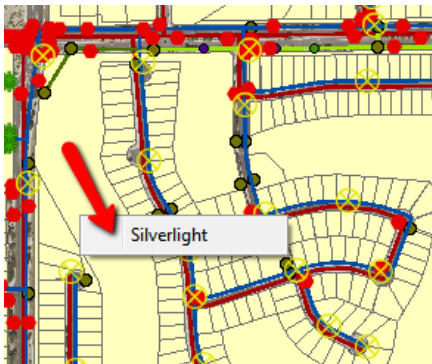
Clear Local Application Storage

The Lucy web map saves some user settings locally in the Silverlight Application Storage. Although, these settings are saved automatically and are updated during normal Lucy web map usage, it is possible that a corrupt setting is causing abnormal behavior with the web map. The following are the current Lucy GIS settings stored in the Silverlight Application Storage:

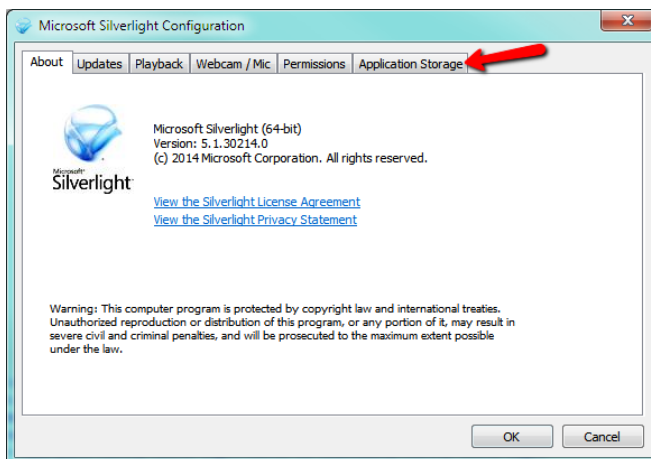
- Default web map
- Default map extent
- Default selection tool
- Work order view or edit prompt
- Visible layers
- Non-Selectable layers
- Display preferences (custom setting name, main selection color, secondary selection color, revert to pan option).
- Suppress print instructions

The following are the steps needed to delete the Lucy settings from the Silverlight Application Storage:

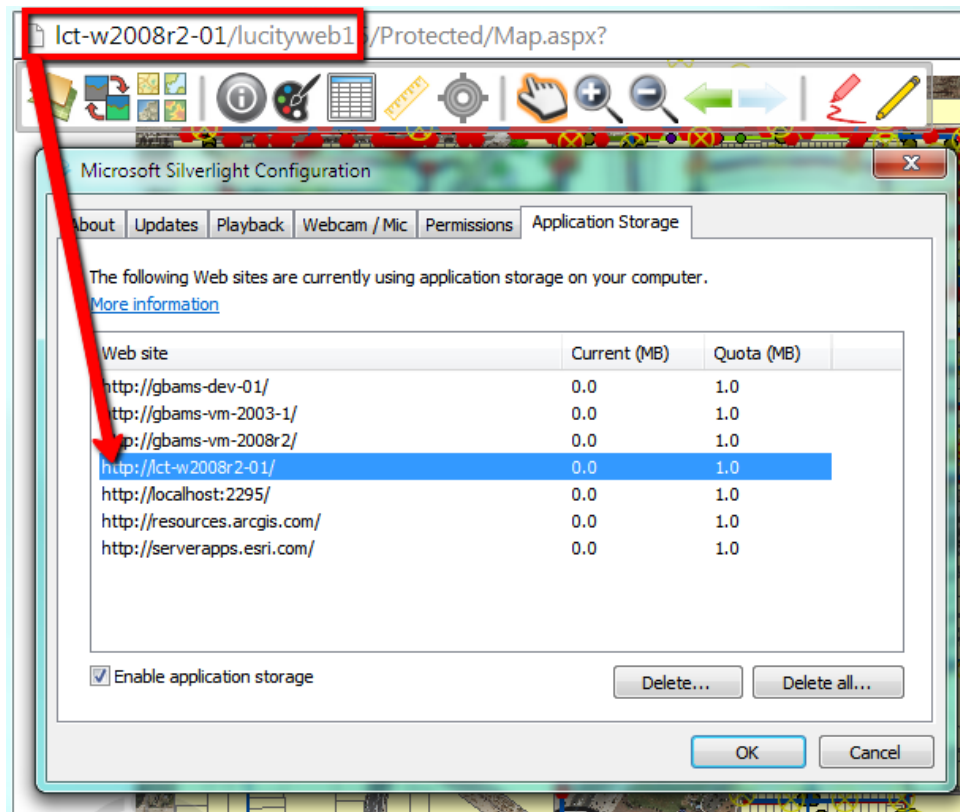
1. Browse to the Lucy web map, right-click in the map and select **Silverlight**.



2. The Microsoft Silverlight Configuration form will appear. Go to the **Application Storage** tab.



3. On the Application Storage tab, select the Lucy web map site. If you are unsure of the web site, check the URL to the Lucy web map. Click **Delete**.



4. Reopen the Lucy web map page for the page to be loaded with no user defaults.

Notes: _____

Check Lucy Web Map Log

The majority of the Lucy web map tools if encountered an error will display a message to the user to check the Lucy log for further details. The log may contain additional details to help explain the issue and can be helpful to Lucy support if assisting with troubleshooting.

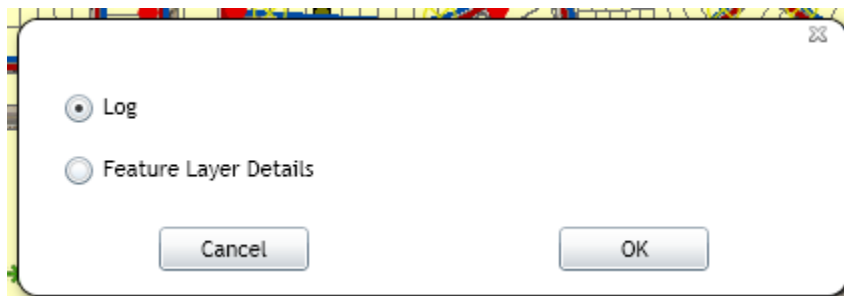
Error log

The following are the steps needed to access the Lucy web map error log:

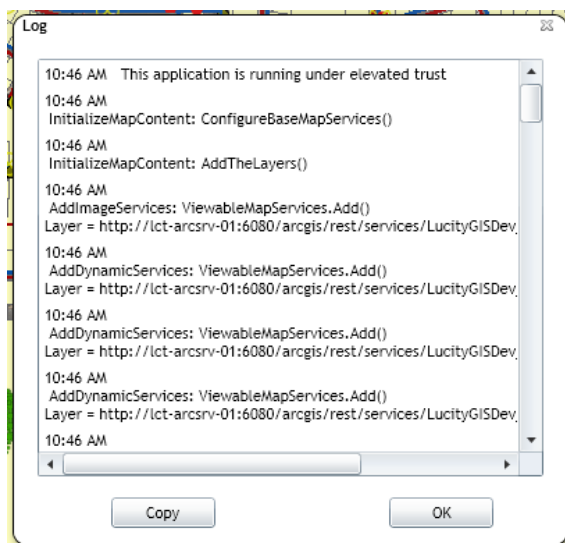
1. In the Lucy web map click the Lucy log button.



2. You will receive the following prompt in which you should check **Log** and click **OK**.



3. The log window will appear. You have the option to Copy the contents which is helpful when providing the information to Lucy support.



Feature Layer Details

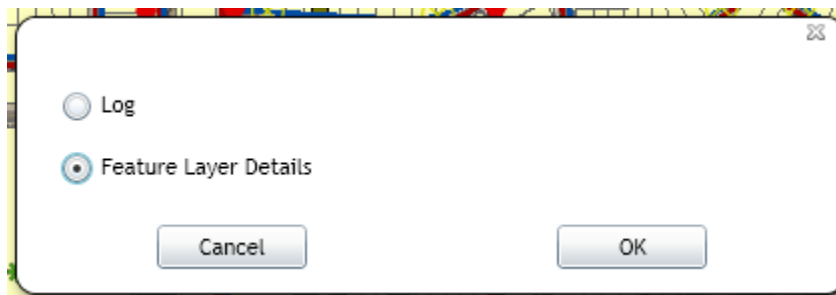
The Lucy web map log also provides a tool to verify which layers in the map are integrated with a Lucy module. This is helpful when troubleshooting issues involving layers in the map. Some web map tools only work on Lucy linked layers, so the Feature Layer Details log will help verify what those layers are.

The following are the steps needed to access the Lucy feature layer details log:

1. In the Lucy web map click the Lucy log button.



2. You will receive the following prompt in which you should check **Feature Layer Details** and click **OK**.



3. The log window will appear. You have the option to Copy the contents which is helpful when providing the information to Lucy support.
 - Note: Only layers that have been recognized as being linked to Lucy will be listed. It provides the layer index, the Lucy inventory type with description, and information regarding linking fields.
 - The most common reason why a layer isn't listed is because the layer's alias has not been properly defined in Lucy.

