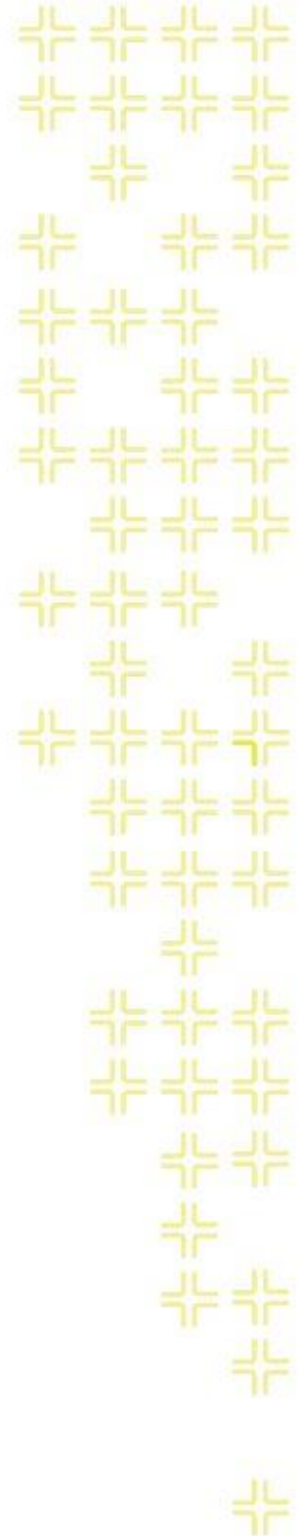




TRAINING GUIDE

# Overview of ArcGIS Pro with Lucity



# Overview of ArcGIS Pro with Lucy

In this session, we'll cover the Lucy ArcGIS Pro add-in.

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## Overview

### Highlights for version 2018

- Configure GIS domains with corresponding Lucity picklist fields.
- Kick off a GIS force sync task on the fly for selected features in the map.
- Run a QA/QC analysis on any feature layer in the map.
- Define, Dissolve, Generate, or Link/Unlink Supersegments.
- Copy attributes from the longer pipe/segment when merging features.
- View product information with the About Lucity dialog.
- Persist the contents of the Process Log to disk to aid in troubleshooting.
- View selected features in the Lucity Relates tool with their display field, instead of Esri's ObjectID.
- Access version-specific tools based on the Lucity server version.

### Highlights for version 2018r2

- View and manage bookmarks shared across the Lucity enterprise.
- Configure and generate Module Spatial Data as map layers.
- Update values in GIS with values from the corresponding Lucity records.
- Update the InMap flag in Lucity and view orphaned records for both GIS and Lucity.
- Create a work point at an XY location.
- Add an XY location to an existing Work Order or PM/Template.
- Renumber any inventory module with the Lucity Renumber tool.
- Have association tables updated during a Renumber operation.
- Have Storm BMP Sites updated during a Storm Conduit Split or Merge operation.

### Requirements

- Pre-2017r2: ArcGIS Pro 1.2-1.4
- 2017r2-2018: ArcGIS Pro 2.0-2.2
- 2018r2: ArcGIS Pro 2.2
- Lucity Internal Web REST API must be installed and running.
- Lucity Internal Identity Server API must be installed and running.

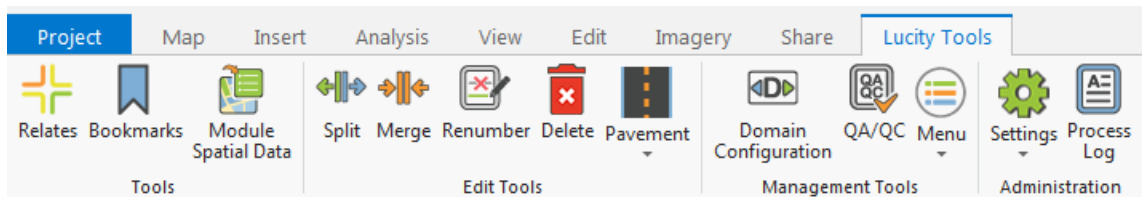
*Note: With every release so far, no additional Lucy licensing is needed to use the Lucy extension in ArcGIS Pro. This will likely not be the case in a future release and some sort of Lucy license would be required to use the Lucy extension in ArcGIS Pro.*

## Installation

- The extension is provided in the format of an Esri add-in (LucyArcGISPro.esriAddInX)
- The Lucy workstation install will copy the .esriAddInX file to the Lucy desktop bin directory. The workstation install then determines if the workstation has ArcGIS Pro installed by checking the registry for HKLM>SOFTWARE>Esri>ArcGISPro. If that directory exists, then it will attempt to register the add-in with ArcGIS Pro.
- The add-in can also be manually installed. A download of the LucyArcGISPro.esriAddInX can be obtained at ArcGIS Pro 2.2 (1.2-1.4 for Pre-17r2 and 2.0-2.2 for 17r2 and 18). Simply double-clicking the add-in file will register the add-in with ArcGIS Pro.
- Lucy Internal Web REST API must be installed and running
- Lucy Internal Identity Server API must be installed and running

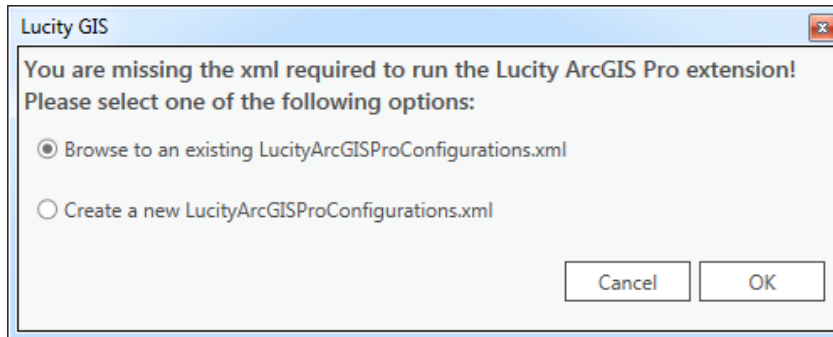
## Setup/Configuration

When the Lucy ArcGIS Pro add-in is registered with ArcGIS Pro, a new Lucy Tools menu item is added to the ArcGIS Pro ribbon. The Lucy Tools menu contains four tool groups: Tools, Edit Tools, Management Tools, and Administration.



- The Lucy ArcGIS Pro extension doesn't require any Lucy workstation component to be installed, as the integration with Lucy is done via the Lucy Internal Web REST API. Therefore, before the tools provided with the Lucy ArcGIS Pro extension can be used, you must perform some initial configuration so the extension knows the location of the Lucy Internal Web REST API.

- When you attempt to use one of the Lucy ArcGIS Pro tools, the Lucy extension checks to see if it has been previously configured for use. If not, the following prompt will be displayed:



*Note: Each time the Lucy ArcGIS Pro extension initializes it looks for a LUCITY\_PROCONFIGDIR registry key in HKEY\_CURRENT\_USER>Software>Lucy>CurrentVersion. This key contains the path to where the LucyArcGISProConfigurations.xml resides. If the key isn't found or there isn't an .xml at that location, then it will prompt the user to configure ArcGIS Pro for first time use.*

- The Lucy ArcGIS Pro extension requires a LucyArcGISProConfigurations.xml that contains information regarding the Lucy clients and their Internal Web REST API root URLs. An example of the contents of the .xml is:

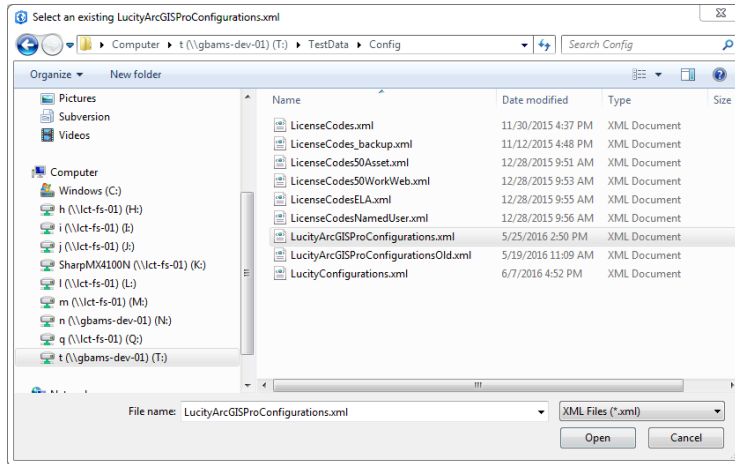
```

1  <?xml version="1.0" encoding="utf-8"?>
2  <LucyArcGISProConfigurations xmlns:xsd="http://www.w3.org/2001/XMLSchema" xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance">
3  <Configurations>
4  <Configuration>
5  <ClientName>Master SQL Server Development</ClientName>
6  <InternalRESTAPIRootUrl>http://localhost:51596</InternalRESTAPIRootUrl>
7  </Configuration>
8  <Configuration>
9  <ClientName>Replaced Nightly SQL Server</ClientName>
10 <InternalRESTAPIRootUrl>http://lct-w2008r2-01/NightlyWebInternalREBTAPI</InternalRESTAPIRootUrl>
11 </Configuration>
12 </Configurations>
13 </LucyArcGISProConfigurations>

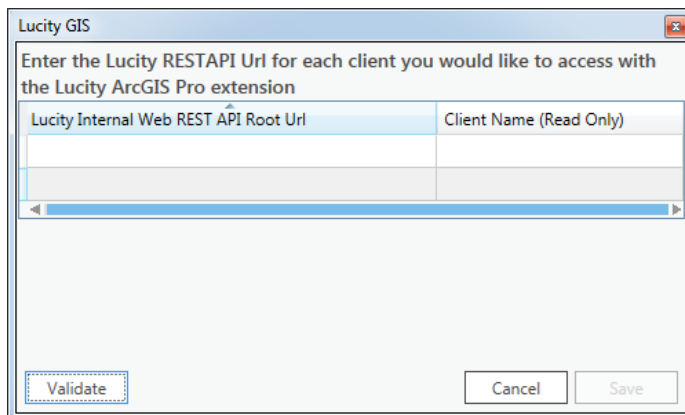
```

- There are two options: 1) Browse to an existing .xml or 2) create a new one. Ideally, an organization could just create one LucyArcGISProConfigurations.xml, place it on a network share, and configure all end-users to use that single .xml. Alternatively, each user could create their own .xml and have it saved locally.

- Browse to an existing `LucityArcGISProConfigurations.xml`- If you select this option an open dialog will appear, prompting you to select the existing `.xml`.



- Create a new `LucityArcGISProConfigurations.xml`- This option prompts the user with the following dialog for input regarding their Lucity Internal Web REST API(s).



1. Enter the root URL to the Lucity Internal Web REST API for each client you wish to have work with the Lucity ArcGIS Pro extension.

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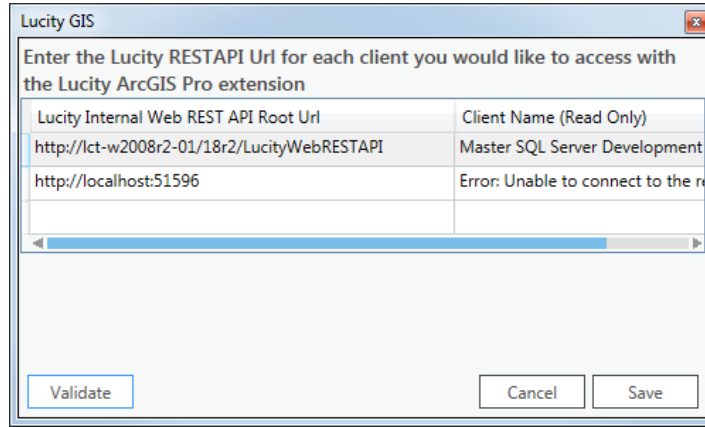
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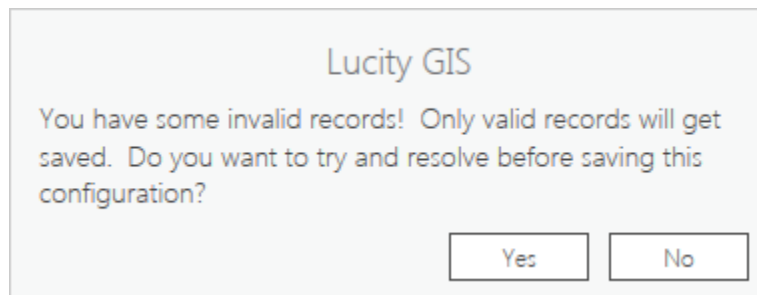
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2. Validate. You must validate the configuration before saving. This will attempt to connect to the Internal Web REST API using the URL provided. If successful, the Client Name field will be populated with the associated name; otherwise, it will be populated with an error message.



3. Save. Once you have configured each desired client and validated, you need to save, which will create the .xml file. If you attempt to save when there are invalid records you will receive the following warning:



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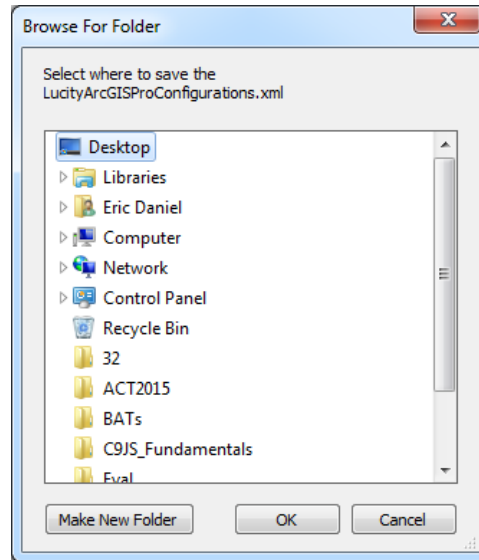
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4. Choose location. The following dialog will appear prompting for the location to where you wish to save the newly created `LucityArcGISProConfigurations.xml`. Note: If you wish to share the .xml then you would likely want to save it to a shared network location where other users can access it.



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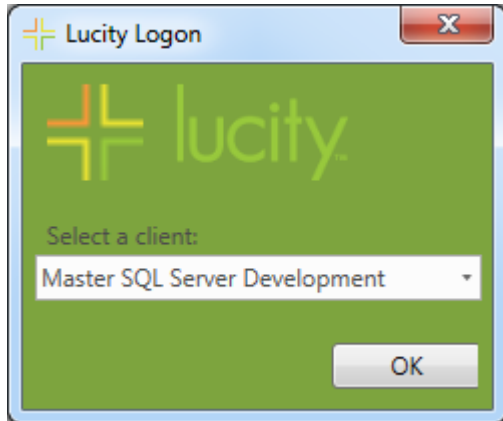
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## Logon Process

For each ArcGIS Pro session, you will be prompted to logon the first time a Lucy ArcGIS Pro tool is used. If you have more than one Lucy client configured for use, you will receive the following prompt to select which Lucy client to log into.



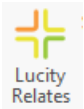
The Lucy Identity Server is required for logging into the Lucy Internal Web REST API. The following prompt will appear asking for the user's Lucy credentials:



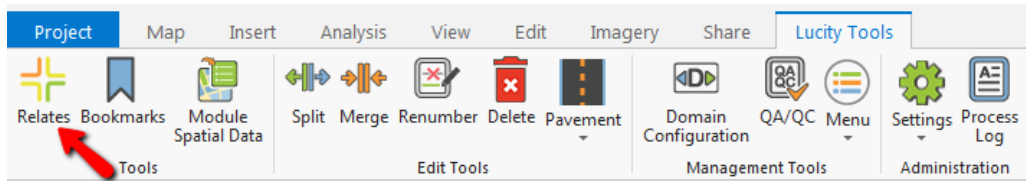
Once logged in, the user can begin using the Lucy ArcGIS Pro tools.

## Tools

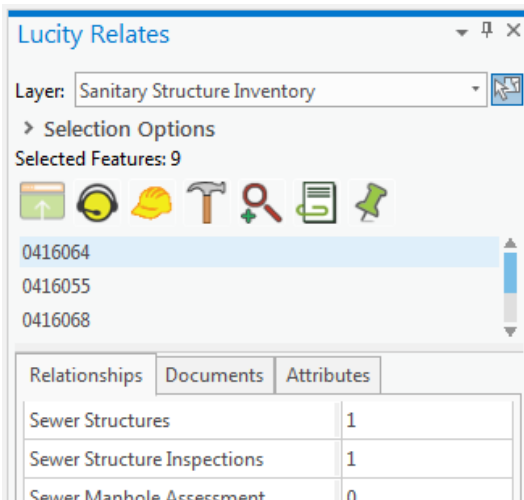
### Relates





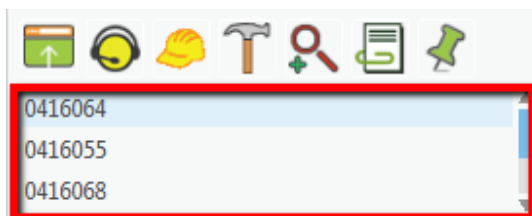
The Lucy Relates tool is used to view module relationships, manage documents, open related records in Lucy web, and create requests, work orders, pms, and inspections.




- When clicked, this tool opens a dockable window:

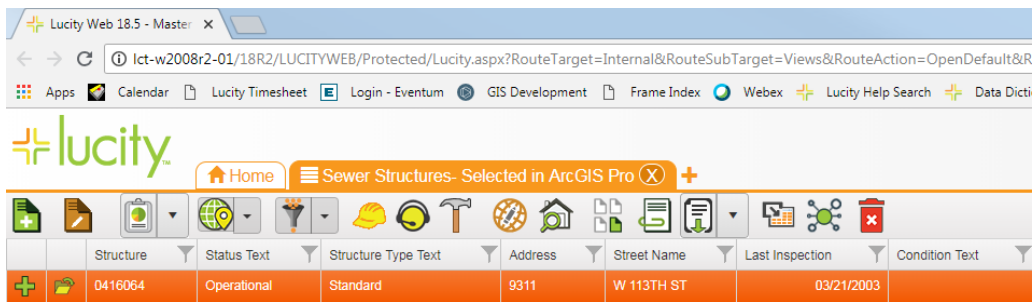
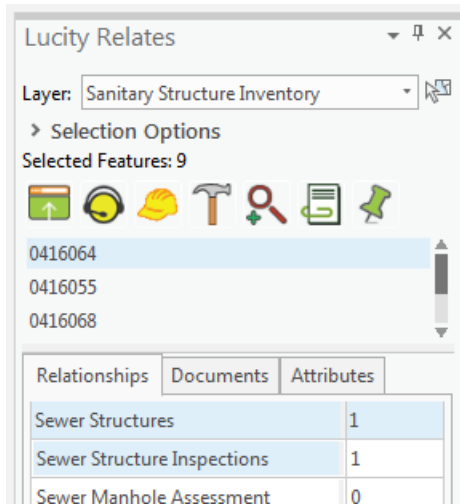


- **Layer:**  **Layer:** This is a drop down list of all layers in the map that are linked to Lucy.
-  **Selection Tool:** This changes the active tool to a selection tool, allowing the user to select features from the active layer (the active layer is the one specified in the Layer dropdown).
- **Selected features grid:** This is a list of the selected features for the currently selected layer. Selecting one or more records in this list will enable the Lucy tools.



## View Record(s) in Lucity Web.

 This tool will only be enabled if one or more features are highlighted in the selected features grid. This tool will open the module selected on the relationships tab.



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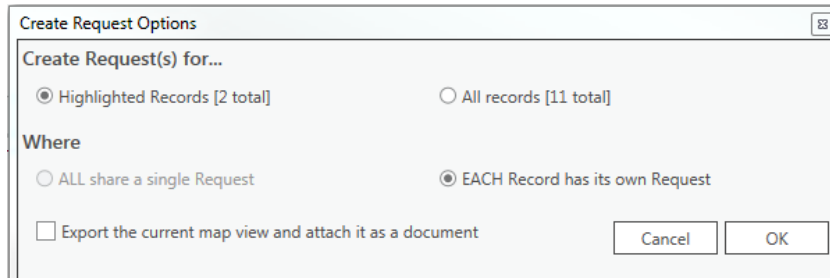
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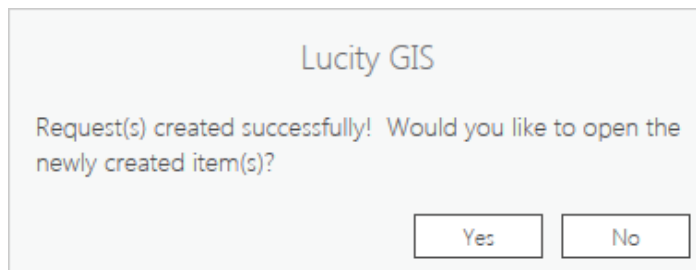
## Create a Lucy Request



This tool will create a request (or multiple) using the highlighted feature(s) in the list. When clicked, the following dialog will appear:



- Select an option to create a request for just the highlighted record(s) or all records.
- (Optional) Export the current map view and attach it as a document to the Request. The format of the document is determined by the System Setting under GIS Desktop>>>Format for map exports. If none is specified, then the default is pdf. Supported: bmp, emf, jpeg, pdf, png, tga, and tiff.
- Specify the desired options and click OK. If successful, the following prompt will appear:

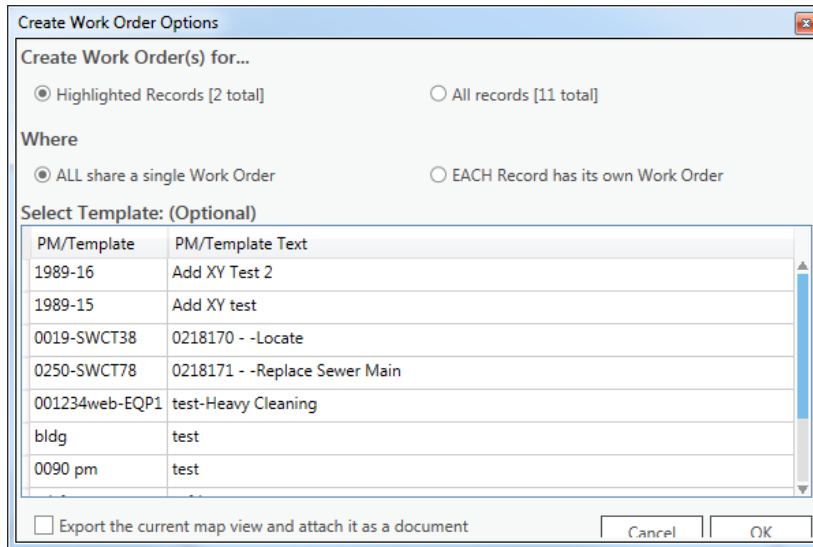


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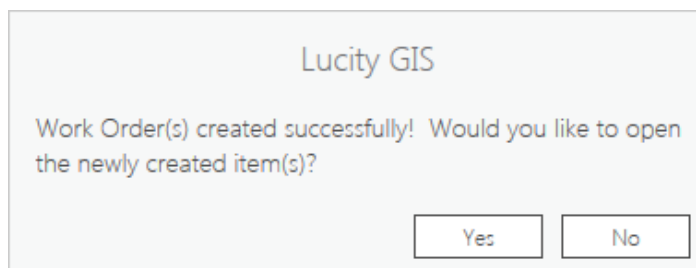
## Create a Lucy Work Order



This tool will create a work order (or multiple) using the highlighted feature(s) in the list. When clicked you will receive the following prompt:



- Select an option to create a work order for just the highlighted record(s) or all records.
- Select an option to add all assets to a single work order or to create a separate work order for each asset.
- (Optional) Select an existing PM Template (list based upon the asset type) that should be used when creating the work order.
- (Optional) Export the current map view and attach it as a document to the Work Order. The format of the document is determined by the System Setting under GIS Desktop>>Format for map exports. If none is specified, then the default is pdf. Supported: bmp, emf, jpeg, pdf, png, tga, and tiff.
- After setting the desired options, click OK. If successful, the following prompt will appear:



## Create a Lucy PM/Work Template



This tool will create a PM/Work Template (or multiple) using the highlighted feature(s) in the list. When clicked, the following prompt will appear:

Create PM/Work Template Options

Create PM/Work Template(s) for...

Highlighted Records [2 total]       All records [11 total]

Where

ALL share a single PM/Work Template       EACH Record has its own PM/Work Template

Code and description are required:

Routine Code

Routine Description

Export the current map view and attach it as a document

Cancel    OK


- Select an option to create a pm/work template for just the highlighted record(s) or all records.
- Enter a Routine Code and a Routine Description. These are required, and the Routine Code must be unique.
- (Optional) Export the current map view and attach it as a document to the PM/Work template. The format of the document is determined by the System Setting under GIS Desktop>>Format for map exports. If none is specified, then the default is pdf. Supported: bmp, emf, jpeg, pdf, png, tga, and tiff.
- After setting the desired options, click OK. If successful, the following prompt will appear:

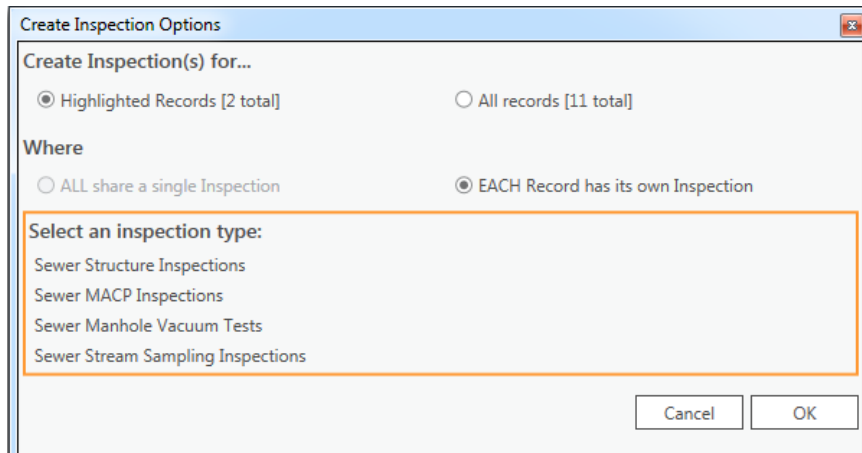
Lucy GIS

PM/WorkTemplate(s) created successfully! Would you like to open the newly created item(s)?

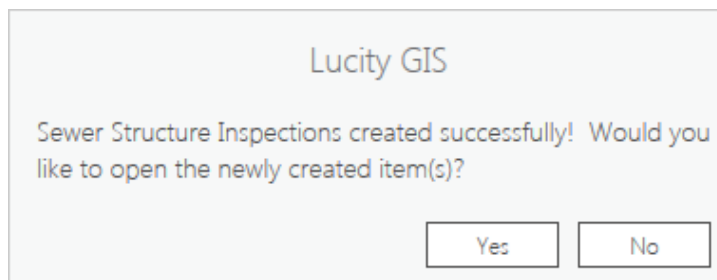
Yes    No

## Create a Lucy Inspection

 This tool will create an inspection (or multiple) using the highlighted feature(s) in the list. When clicked, you will receive the following prompt:



- Select an option to create the inspection for just the highlighted record(s) or all records.
- Select an inspection type. The list of inspection types is based upon the asset type. Note: Some asset types may have only one inspection type, and some may have none.
- After specifying the desired options, click OK. If successful, the following prompt will appear:

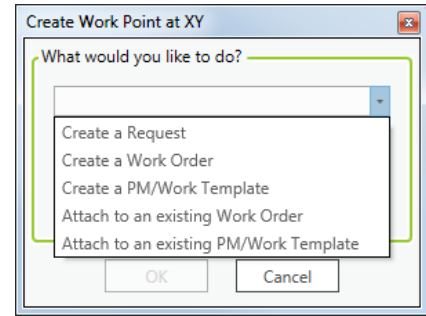




## Create a Lucy Work Point



This tool will create a Lucy Request, Work Order, or PM/Template at an XY point, or attach an XY point to an existing Work Order or PM/Template. When clicked, the cursor becomes a crosshair, and you may click a location on the map to capture that location's coordinates. Once a point has been clicked, you will receive the following prompt:

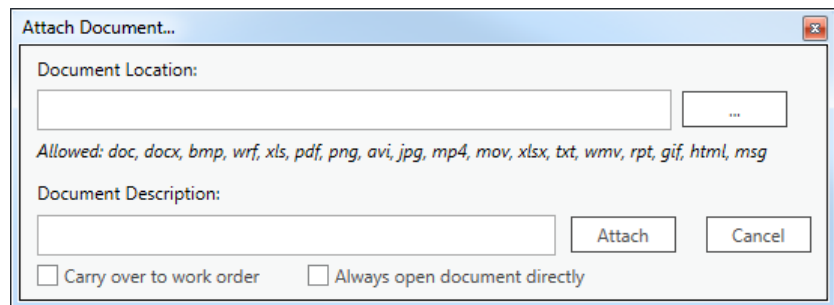


- If you choose to create a new work object, then the Request, Work Order, or PM/Template Options dialog will appear once you click OK.
- If you choose to attach the coordinates to an existing Work Order or PM/Template, then a field will appear asking for the Work Order Number or the PM/Template Code. Clicking OK will send the data to Lucy.

## Attach a Document



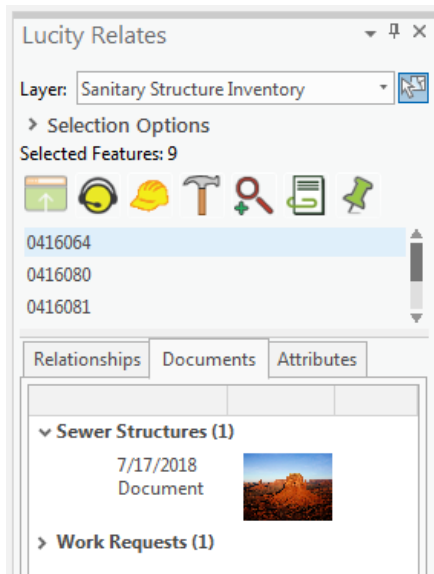
This tool will attach a document to the highlighted feature(s) in the list. When clicked, you will receive the following prompt:



- **Document Location:** This is the path to the document on your local filesystem that you would like to upload. Supported filetypes are shown below the text box.
- **Document Description:** A text description for the document.
- **Carry over to work order:** If checked, the document will be attached to any work orders created from the asset.
- **Always open document directly:** If unchecked, the web app will display a link to the document location, rather than opening the document itself.
- Once these options have been set to your desired configuration, click Attach. Results, success or failure, will be written to the Process Log.

*Note: Attaching documents from ArcGIS Pro automatically uploads them to the document server. Associating documents (like you can do in Lucy Web) is not currently supported.*

## View a Document



- The Documents tab allows you to view all documents for all highlighted features in the list. This includes the feature’s module itself, as well as all related modules (Work Orders, Requests, Inspections, etc.).
- Click View Documents to load the documents for all highlighted features.
- In the first field, the date the document was uploaded, along with its description, is displayed. In the second field, if the document is an image, a thumbnail is displayed.
- Double-clicking on the document in the list will do one of the following:
  - Open the document with your local machine’s default program for whatever filetype the document is, if “Always open document directly” is set to true.
  - Download the document to your local downloads folder, if “Always open document directly” is set to false.

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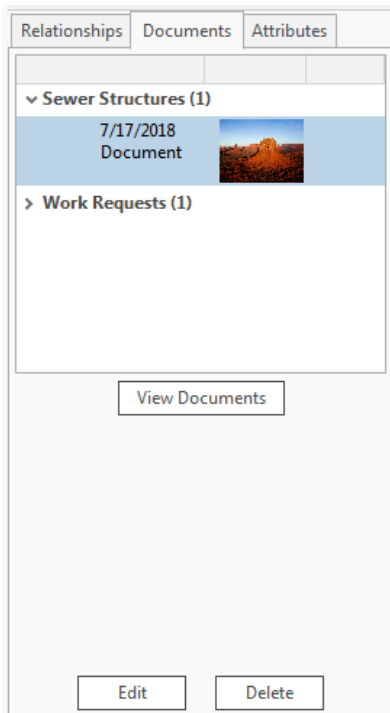
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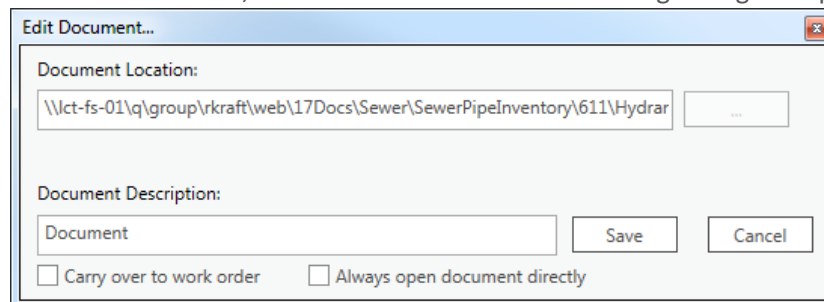
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## Edit or Delete a document

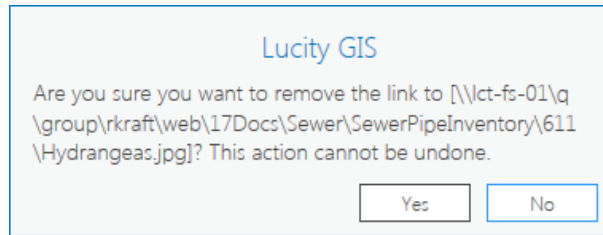


- These tools allow you to edit or delete a single selected document in the list.
- To edit a document, click the Edit button. The following dialog will appear:

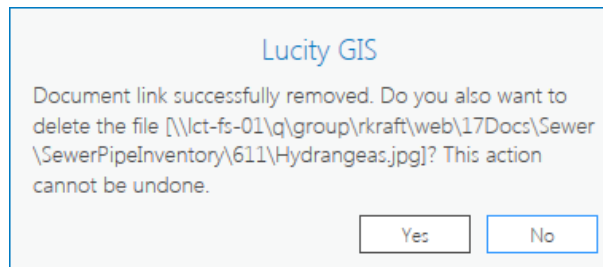


- **Document Location:** This is the read-only path of the document as it exists on the file server. If the document was only associated (not uploaded), then this is not read-only, and can be changed.
- **Document Description:** A text description for the document.
- **Carry over to work order:** If checked, the document will be attached to any work orders created from the asset.
- **Always open document directly:** If unchecked, the web app will display a link to the document location, rather than opening the document itself.
- Once these options have been set to your desired configuration, click Save. Results, success or failure, will be written to the Process Log.

- To delete a document, click the Delete button. The following prompt will appear:



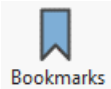
- Clicking Yes will disassociate the document from the record in whichever module it appears under in the list.
- If the document can also have its underlying file deleted, then this prompt will appear next:



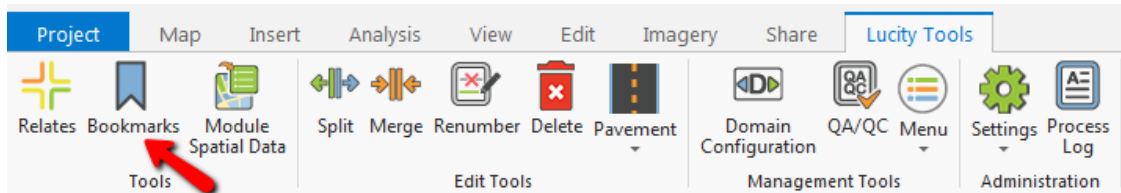
- Clicking Yes will delete the document's underlying file from the file system.
- Results, success or failure, will be written to the Process Log.

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## Bookmarks

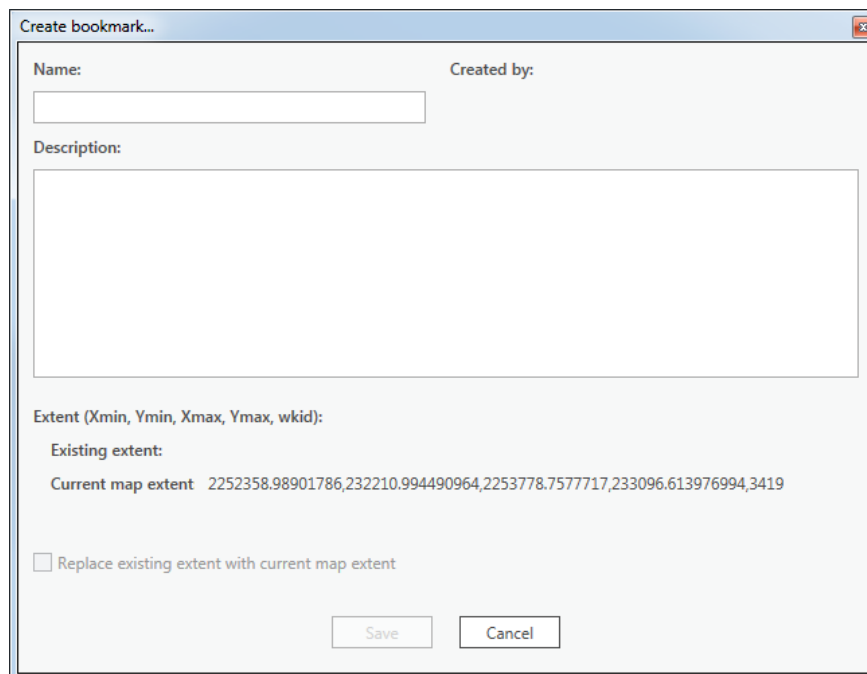
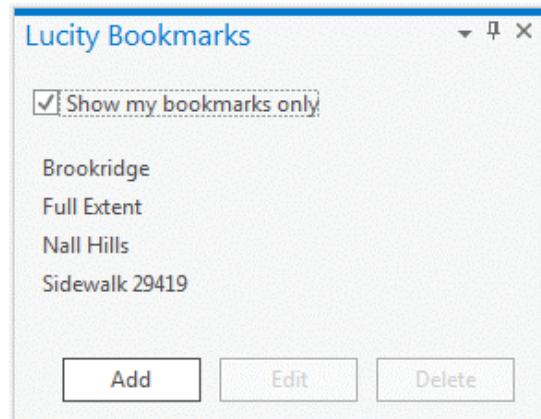


The Lucy Bookmarks tool is used to view and manage bookmarks shared across the Lucy enterprise.

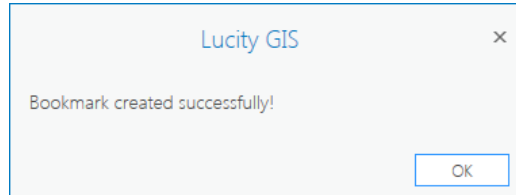


- When clicked, this tool opens a dockable window:

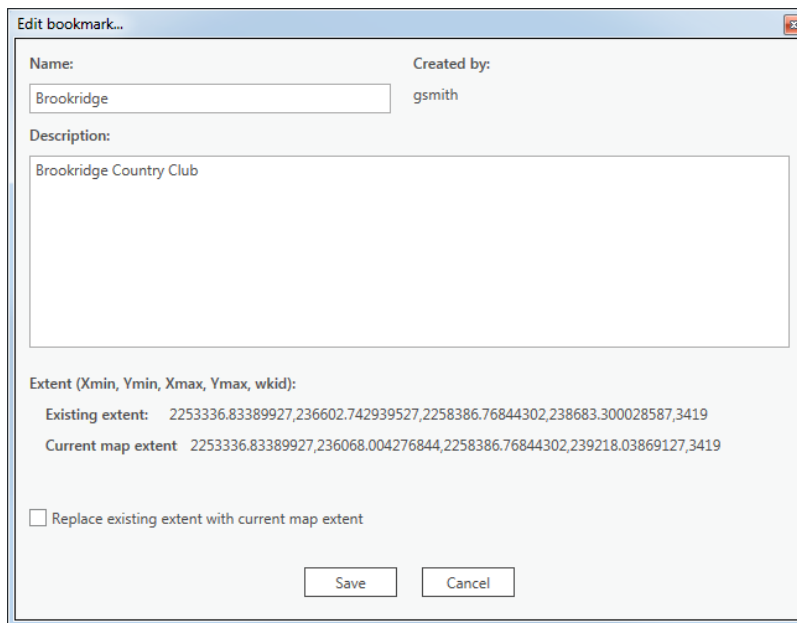
- **Show my bookmarks only:** This filters the list view to show only bookmarks that the current user has created.
- Clicking on any bookmark item in the list will automatically zoom the map extent to that of the selected bookmark.
- Mousing over any bookmark item in the list will show a tooltip with the bookmark's description.
- To add a bookmark, click the Add button. The following dialog will appear:



- **Name:** A unique name for the bookmark.
- **Created by:** The Lucity user who created the bookmark.
- **Description:** A text description for the bookmark.
- **Current map extent:** The current extent of the active map view. This is the extent that will be used to create the bookmark.
- Once these options have been set to your desired configuration, click Save. The following prompt will appear once the bookmark has been created:

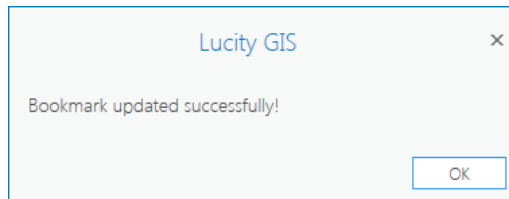


- To edit a bookmark, select a bookmark in the list and click the Edit button. The following prompt will appear:

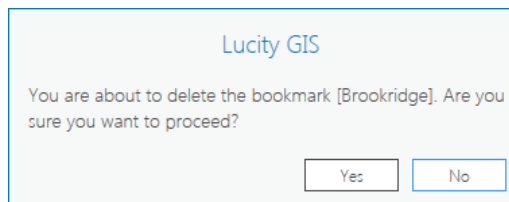


- **Name:** A unique name for the bookmark.
- **Created by:** The Lucity user who created the bookmark.
- **Description:** A text description for the bookmark.
- **Existing Extent:** The current extent of the selected bookmark.
- **Current map extent:** The current extent of the active map view.
- **Replace existing extent with current map extent:** Updates the bookmark's extent to that of the current active map view.

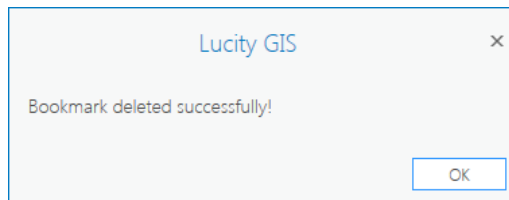
- Once these options have been set to your desired configuration, click Save. The following prompt will appear once the bookmark has been updated:



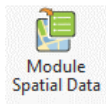
- To delete a bookmark, select a bookmark in the list and click the “Delete” button. The following prompt will appear:



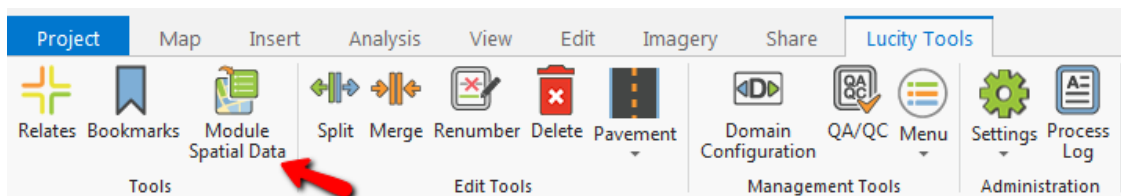
- Click Yes to confirm deletion of the bookmark. The following prompt will appear once the bookmark has been deleted:



## Module Spatial Data



The Lucy Module Spatial Data tool allows a user to display Lucy Work data, and some inspection data, in the map.



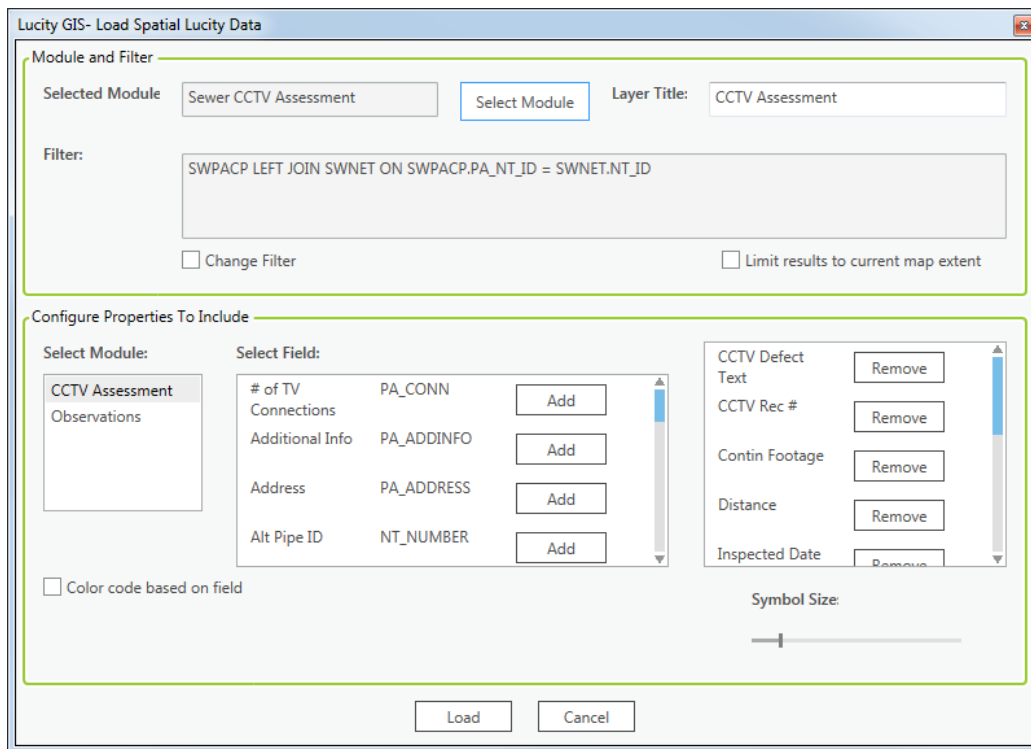
The Module Spatial Data tool loads spatial work/inspection data into ArcGIS Pro with the following steps:

- Spatial features are returned to ArcGIS Pro from Lucy.
- LucyGISTools.gdb is created in the current Windows user’s temp folder, if it doesn’t already exist.

3. Feature classes (for each geometry type returned) are created in the LucidityGISTools.gdb.
4. Fields that the user specified to be included in the results are added to the feature classes.
5. The feature classes are populated with the spatial features from Lucidity.
6. The feature classes are added to the current map as layers.

To use the Module Spatial Data Tool:

1. Click the Module Spatial Data button. The following dialog will appear:



Notes: \_\_\_\_\_

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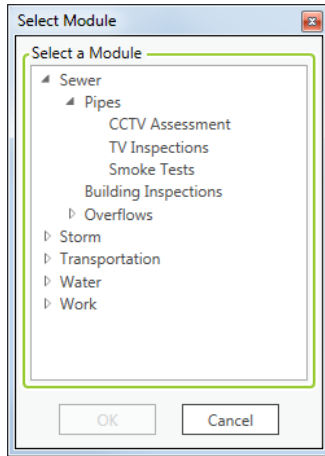
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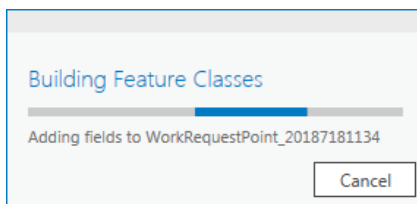
\_\_\_\_\_



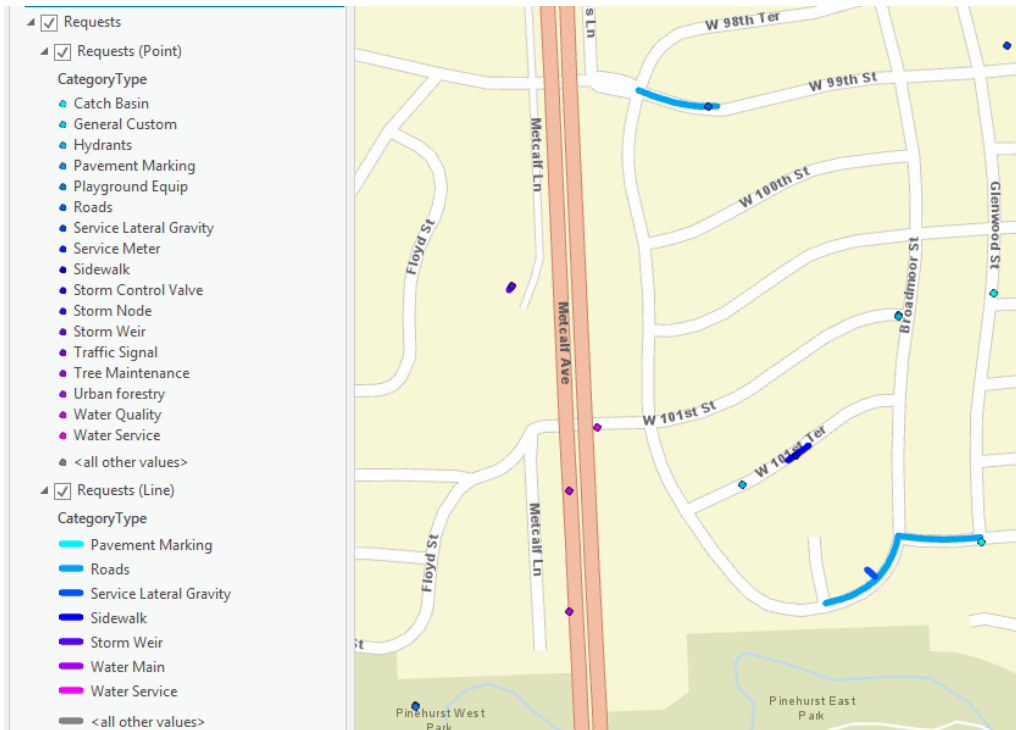
- **Selected Module:** The module for which to load spatial features. This is set by clicking the Select Module button, which opens the following dialog:



- **Layer Title:** The name to apply to the resulting layer(s) in the map.
  - **Filter:** The filter used to retrieve spatial data from the selected module.
  - **Change Filter:** Enables the filter textbox so that the user may modify the filter. Also displays a dropdown list of current filters for the selected module.
  - **Limit results to current map extent:** Passes a spatial filter to Lucity so that only features within the current map extent will be returned.
  - **Select Module:** Controls which fields are shown in the Select Field list view. This will either be the parent module, or one of the child modules.
  - **Select Field:** Displays a list of all fields in the selected parent or child module selected under the Select Module list view. Clicking Add will add a field to the far-right list view, which holds fields to be included in the results. Clicking Remove from the far-right list view removes the field from the list of fields to be included in the results.
  - **Color code based on field:** Indicates that the resulting layers will be symbolized based on unique values of a given field. If checked, the user must specify a field to symbolize on and a color palette to use.
  - **Symbol size:** The symbol size for point/line features in the resulting layers. The default is 4.
2. Once you have set the options to your desired configuration, click Load. While geoprocessing tools are working to create and load feature classes, a cancelable progress indicator is provided:

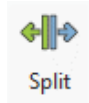


- Upon completion, the resulting layer(s) are symbolized and added to the map under a group layer:

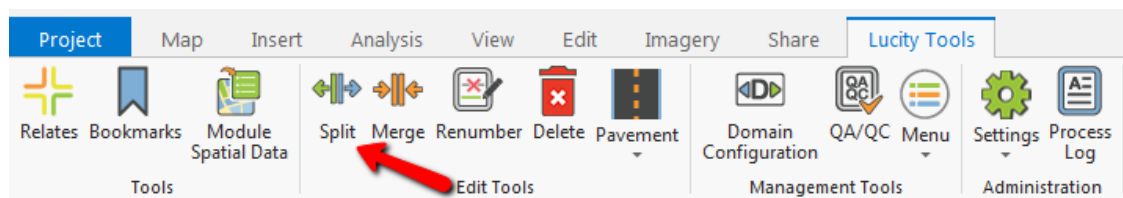


## Edit Tools

### Split



The Lucy Split tool allows a user to split any Lucy-linked line feature in both GIS and Lucy, for several different asset types.

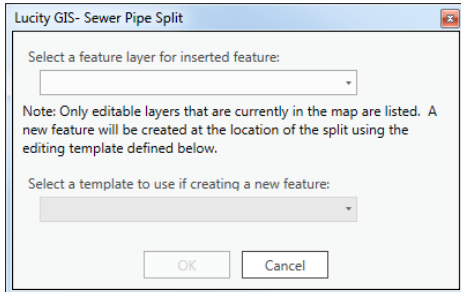


The following asset types are supported by the Lucy Split tool: Sewer Pipes, Storm Conduits, Water Pipes (Distribution, Raw, Recycled), Street Segments, Street Subsegments.

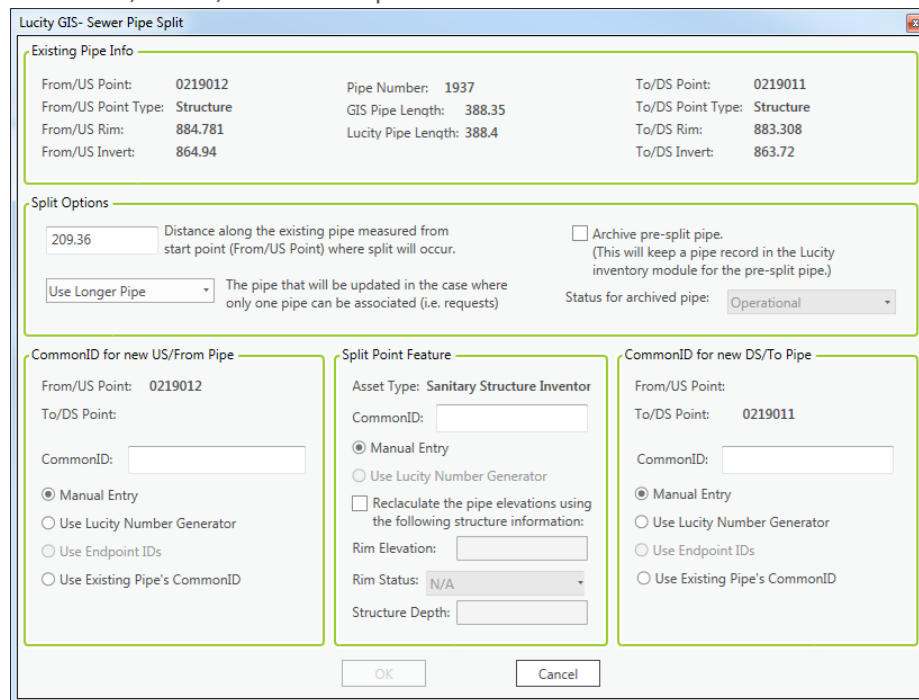
To use the Split tool:

- Select any single line feature in the map that is linked to one of the aforementioned modules, and click the Split tool button on the Lucy Toolbar.

2. Click the point along the line where you would like to split the line.
3. For Sewer, Storm, or Water splits, if there was no existing Lucy-linked split point feature at the location where you clicked, you will be prompted to choose an asset type for the new split point feature:



4. The Split Options form will display:
  - o For Sewer, Storm, and Water splits:



- **Existing Pipe Info:** This is read-only information for the existing pipe, upstream structure, and downstream structure.
- **Split Options:** You have the following options here: override the split distance calculated based on your click point along the line here, set which pipe will be used where only one relationship can be defined, archive the pre-split pipe, and set the status for the archived pipe. If you choose to archive the pre-split pipe, then it will not be deleted from the inventory module.

- **CommonID for new US/From Pipe:** You have the option to manually enter a Common ID for the new upstream pipe, use a Lucy number generator if one is set up, use the endpoint IDs, or use the existing upstream pipe's Common ID.
- **Split Point Feature:** If there is a new split point feature, you have the option to manually enter a Common ID for the split point feature, or use a Lucy number generator if one is set up. You also have the option to set the new rim information for the split point feature if it's a Sewer or Storm split.
- **CommonID for new DS/To Pipe:** You have the option to manually enter a Common ID for the new downstream pipe, use a Lucy number generator if one is set up, use the endpoint IDs, or use the existing downstream pipe's Common ID.

○ For Street Segment splits:

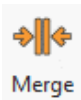
- **Existing Segment Info:** This is read-only information for the existing segment, from intersection and street, and to intersection and street.
- **CommonID for new From Segment:** You have the option to manually enter a Common ID for the new from segment, use a Lucy number generator if one is set up, use the intersection IDs, or use the existing from segment's Common ID.
- **Intersection Feature:** If there is a new intersection feature, you have the option to manually enter a Common ID for the intersection feature, use a Lucy number generator if one is set up, or not create an intersection at all.

- **CommonID for new To Segment:** You have the option to manually enter a Common ID for the new to segment, use a Lucity number generator if one is set up, use the intersection IDs, or use the existing to segment's Common ID.
- **New Address Range for the From Segment (optional):** This is the address info for the new from segment.
- **Split Options:** You have the following options here: override the split distance calculated based on your click point along the line here, set which pipe will be used where only one relationship can be defined, archive the pre-split segment, and set the status for the archived segment. If you choose to archive the pre-split segment, then it will not be deleted from the inventory module.
- **New Address Range for the To Segment (optional):** This is the address info for the new to segment.

○ For Street Subsegment splits:

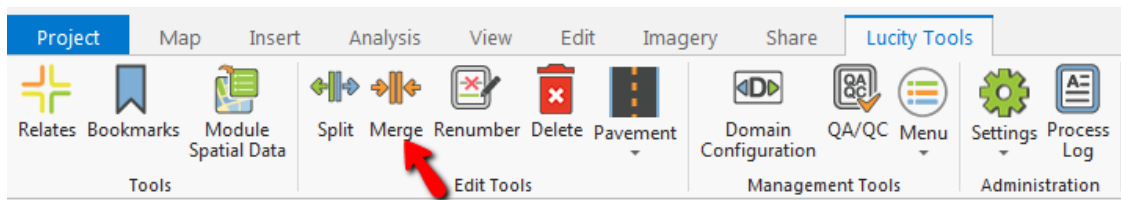
- **Existing Subsegment Info:** This is read-only information for the existing subsegment.
- **Split Options:** You have the option to override the split distance calculated based on your click point along the line here.
- **New From Subsegment Info (optional):** These are various fields specific to the subsegment module for the new from subsegment.
- **New To Subsegment Info (optional):** These are various fields specific to the subsegment module for the new to subsegment.

- Once you have set the Split options to your desired configuration, click OK. The split will be processed first in GIS, and then in Lucy.
- The following prompt will appear once the split has completed:



### Merge

The Lucy Merge tool allows a user to merge any two Lucy-linked line features in both GIS and Lucy, for several different asset types.



The following asset types are supported by the Lucy Merge tool: Sewer Pipes, Storm Conduits, Water Pipes (Distribution, Raw, Recycled), Street Segments, Street Subsegments.

To use the Merge tool:

- Select any two adjacent line features in the map that are linked to one of the aforementioned modules, and click the Merge tool button on the Lucy Toolbar.
- The Merge Options form will display:

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- For Sewer, Storm, and Water merges:

The screenshot shows the 'Lucy GIS- Sewer Pipe Merge' dialog box with the following sections:

- Existing From/US Info:** Alt Pipe ID: 1835, Feature Type: Structure, Feature ID: 0237049, GIS Length: 269.947963107726, Lucy Length: 269.9
- Existing Split Feature:** Alt ID: 0237048, Feature Type: Sanitary Structure,  Don't delete feature,  Delete feature from GIS only,  Delete from GIS and Lucy. Select a status for the structure: N/A
- Existing To/DS Info:** Alt Pipe ID: 5115, Feature Type: Structure, Feature ID: 0237047, GIS Length: 394.68854695893, Lucy Length: 394.7
- New Pipe Info:** From/US Feature Type: Structure, To/DS Feature Type: Structure, From/US Feature ID: 0237049, To/DS Feature ID: 0237047, New Pipe Length: 664.6. New Alt Pipe ID: [text box].  Manual Entry,  Use Existing From/US Pipe ID,  Use Lucy Number Generator,  Use Existing To/DS Pipe ID,  Use Endpoint IDs
- New Pipe Attributes:** Copy from:  Existing From/US Pipe,  Existing To/DS Pipe,  Existing Longer Pipe
- Archive (Optional):**  Archive pre-merged pipes. (This will keep a pipe record in the Lucy inventory module for both of the pre-merged pipes.) Status for archived pipes: Operational

- **Existing From/US Info:** This is read-only information for the existing from pipe.
- **Existing Split Feature:** This is read-only information for the existing split feature and you have the option to not delete the feature, delete it from GIS only, or delete it from GIS and Lucy.
- **Existing To/DS Info:** This is read-only information for the existing to pipe.
- **New Pipe Info:** This is read-only information for the new pipe, and you have the option to manually enter a Common ID for the new pipe, use a Lucy number generator if one is set up, use the endpoint IDs, use the existing upstream pipe's Common ID, or use the existing downstream pipe's Common ID.
- **New Pipe Attributes:** You can choose to copy over the attributes from the pre-merge from pipe, pre-merge to pipe, or the longer pipe.
- **Archive (Optional):** Select this option if you wish to maintain a record in the pipe inventory module for both the pre-merged pipes. If you select this option, the pre-merge pipes will not be deleted from the inventory module.

- For Street Segment merges:

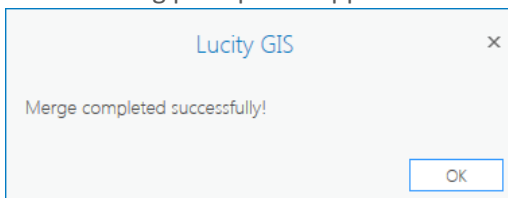
- **Existing From Segment:** This is read-only information for the existing from segment.
- **Existing Intersection:** This is read-only information for the existing intersection feature, and you have the option to not delete the feature, delete it from GIS only, or delete it from GIS and Lucity.
- **Existing To Segment:** This is read-only information for the existing to segment.
- **New Street Segment:** This is read-only information for the new segment, and you have the option to manually enter a Common ID for the new segment, use a Lucity number generator if one is set up, use the intersection IDs, use the existing from segment's Common ID, or use the existing to segment's Common ID.
- **New Segment Attributes:** You can choose to copy over the attributes from the pre-merge from segment, pre-merge to segment, or the longer segment.



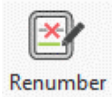
- For Street Subsegment merges:

- **Existing From Subsegment:** This is read-only information for the existing from subsegment.
- **Existing To Subsegment:** This is read-only information for the existing to subsegment.
- **New Subsegment:** These are various fields specific to the subsegment module for the new merged subsegment.
- **New Subsegment Attributes:** You can choose to copy over the attributes from the pre-merge from subsegment, the pre-merge to subsegment, or the longer subsegment.

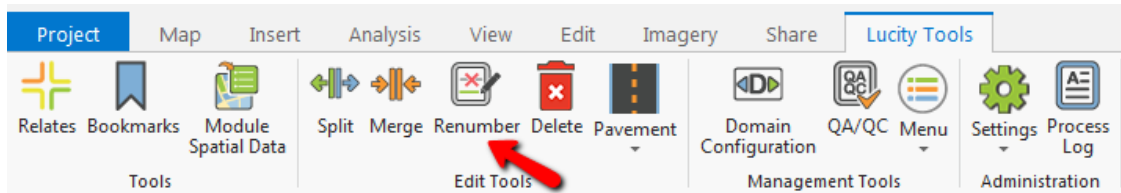
3. Once you have set the Merge options to your desired configuration, click OK. The merge will be processed first in GIS, and then in Lucity.
4. The following prompt will appear once the merge has completed:



## Renumber

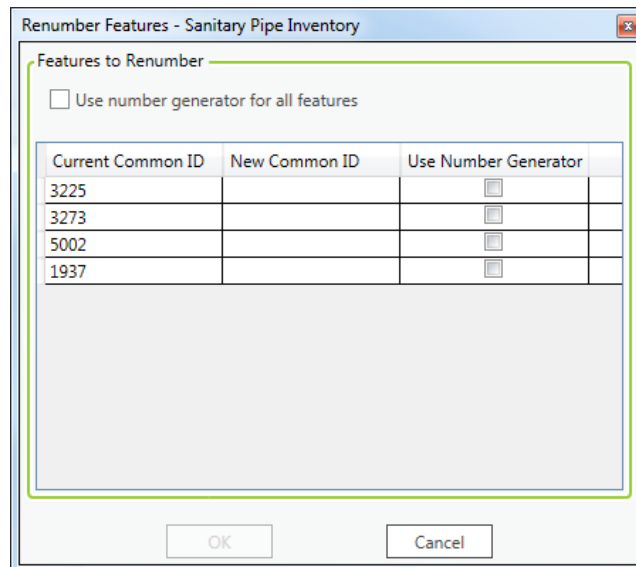


The Lucy Renumber tool allows a user to change the Common IDs of many assets at once, for any inventory type that can be linked to GIS.



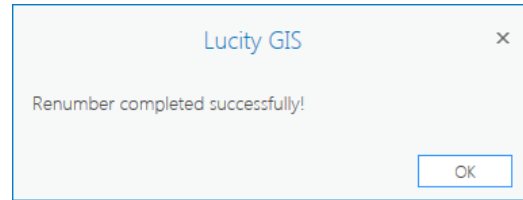
To use the Renumber tool:

1. Select the feature(s) in the map that you would like to renumber (these must all be from the same Lucy-linked feature class) and click the Renumber tool button on the Lucy Toolbar.
2. The following dialog will appear:



- **Use number generator for all features:** This option sets the Use Number Generator checkbox for all features in the selection.
- **Current Common ID:** This is a read-only field that displays the current Common ID for each selected feature. Clicking in this field will zoom and highlight the corresponding asset in the map.
- **New Common ID:** Enter the new Common ID value here. This is disabled if you are using a number generator for the feature.
- **Use Number Generator:** This option tells the program to use a configured number generator to assign the new Common ID to the feature, instead of the user manually entering it.

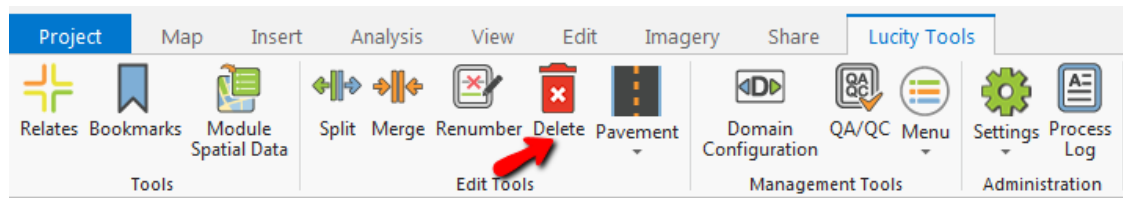
- Once you have either set a new Common ID (or opted to use a number generator) for each selected feature, click OK. The renumber process will begin.
- The following prompt will appear once the renumber has completed:



## Delete



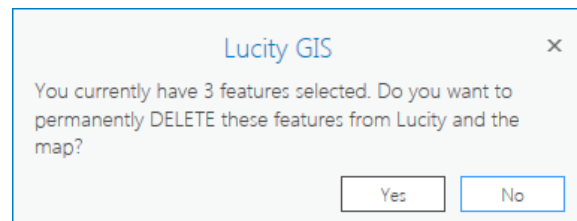
The Lucy Delete tool allows a user to delete many assets at once, from both GIS and Lucy, for almost any asset type.



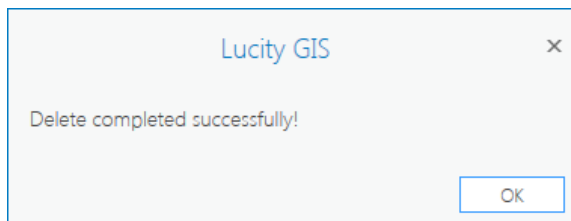
The Lucy Delete tool can currently be used on any asset type supported by GIS except Street Subsegments.

To use the Delete tool:

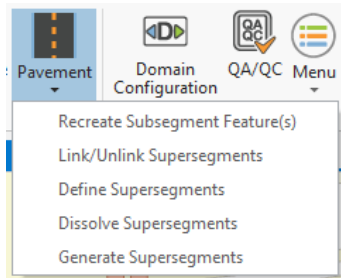
- Select all features in the map that you wish to delete from both GIS and Lucy. These can be from multiple Lucy-linked feature classes.
- Click the Delete tool button on the Lucy Toolbar to begin the delete process. The following prompt will appear:



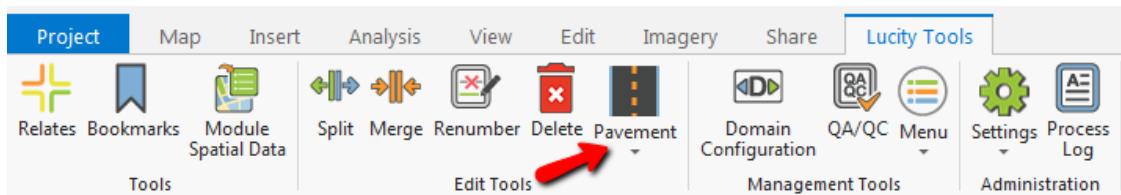
- Clicking Yes will delete all selected features from both GIS and Lucy.
- The following prompt will appear once the delete has completed:



## Pavement Tools



The Lucy Pavement Tools are a group of tools specifically for use against Lucy-linked Street Supersegment and Street Subsegment features in GIS.

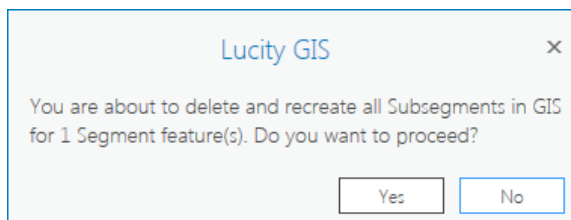


### Recreate Subsegment Feature(s)

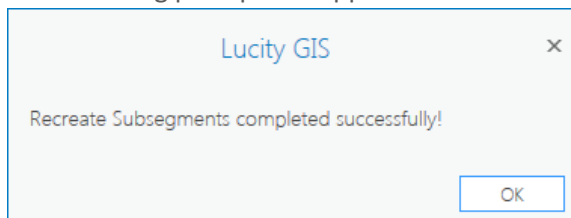
This tool redraws all Subsegments in the map for each selected Street Segment feature, based on the information within Lucy.

To use the Recreate Subsegment Feature(s) tool:

1. Select all Street Segment features in the map that you would like to recreate in GIS.
2. Click the Recreate Subsegment Feature(s) button under the Pavement Tools dropdown on the Lucy Toolbar. The following prompt will appear:



3. Clicking Yes begins the process. For each selected Segment, all existing child Subsegments will be deleted in GIS. Next, the child Subsegments will be redrawn in GIS by copying the parent Segment's geometry, and then splitting that line feature at each Subsegment's current end station distance in Lucy until all Subsegments have been drawn again.
4. The following prompt will appear once recreating Subsegments has completed:

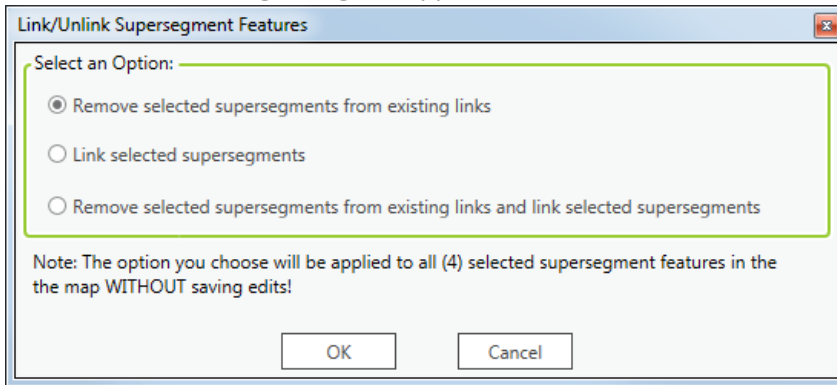


## Link/Unlink Supersegments

This tool manages linkages between Supersegments in Lucity, based on selected Supersegment features in the map.

To use the Link/Unlink Supersegments tool:

1. Select all Street Supersegment features in the map for which you would like to modify links.
2. Click the Link/Unlink Supersegments button under the Pavement Tools dropdown on the Lucity Toolbar. The following dialog will appear:



- **Remove selected supersegments from existing links:** Removes the selected supersegments from all links with other supersegments.
  - **Link selected supersegments:** Links the selected supersegments together. This also links together any supersegments that are linked to the selected supersegments.
  - **Remove selected supersegments from existing links and link selected supersegments:** Removes the selected supersegments from all links with other supersegments, then links the selected supersegments together. The resulting group of supersegments will include only those currently selected.
3. Once you have selected the desired option, click OK. The following prompt will appear upon completion:

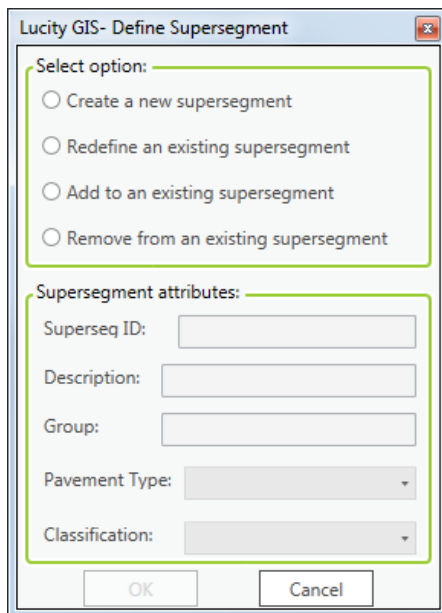


## Define Supersegments

This tool defines a Supersegment in GIS and Lucy, based on a group of Selected Subsegment features in the map. A new Supersegment feature is created in GIS to reflect the changes.

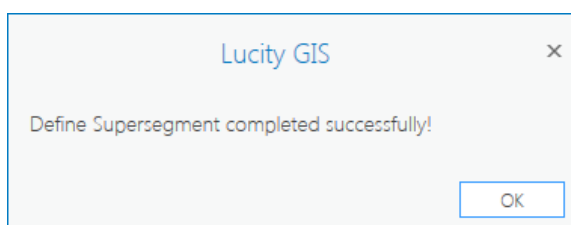
To use the Define Supersegments tool:

1. Select all the Subsegment features in the map that you would like to define as a Supersegment.
2. Click the Define Supersegments button under the Pavement Tools dropdown on the Lucy Toolbar. The following dialog will appear:



- **Create a new supersegment:** A brand new Supersegment will be created based on the selected Subsegments.
- **Redefine an existing supersegment:** An existing Supersegment will be redefined to be based on the selected Subsegments.
- **Add to an existing supersegment:** The selected Subsegments will be added to an existing Supersegment.
- **Remove from an existing supersegment:** The selected Subsegments will be removed from the Supersegment that they currently belong to.

- **Superseg ID:** The Common ID of the Supersegment to define. This is required for all the above options except “Remove from an existing supersegment”.
  - **Description:** The new description for the Supersegment.
  - **Group:** The group identifier, if the Supersegment is part of a group of Supersegments.
  - **Pavement Type:** The material that the Supersegment is made up of.
  - **Classification:** The type of street by traffic load.
3. Once you have set the options to your desired configuration, click OK. The following prompt will appear once the define has completed:



## Dissolve Supersegments

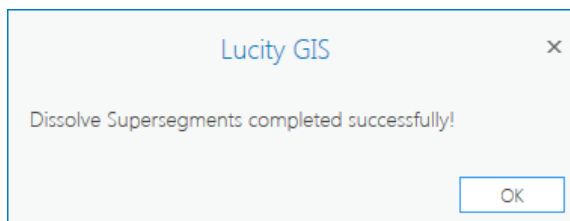
This tool disassociates all Subsegments in Lucy from the selected Supersegment in the map and deletes the Supersegment from GIS.

To use the Dissolve Supersegments tool:

1. Select all the Supersegment(s) in the map that you would like to dissolve.
2. Click the Dissolve Supersegments button under the Pavement Tools dropdown on the Lucy Toolbar. The following prompt will appear:



- **Yes:** All Subsegments will be disassociated from the Supersegment in Lucy, and the Supersegment feature will be deleted from GIS. Additionally, the Supersegment Inventory record, and all its associated Planning Table asset records, will be deleted from Lucy.
  - **No:** All Subsegments will be disassociated from the Supersegment in Lucy, and the Supersegment feature will be deleted from GIS. The Supersegment and all its associated Planning Table Asset records will remain in Lucy.
  - **Cancel:** The Supersegment Dissolve process will be canceled.
3. Once you click Yes or No, the Supersegment Dissolve process begins. The following prompt will appear upon completion:

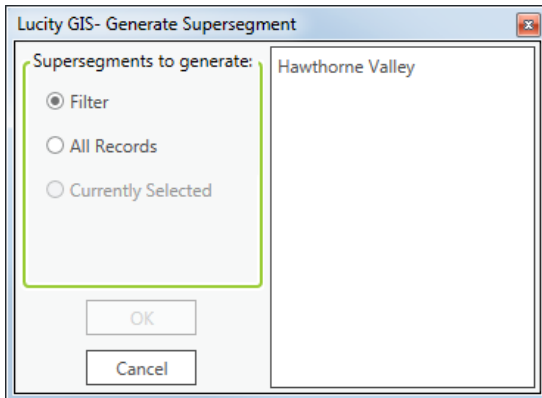


## Generate Supersegments.

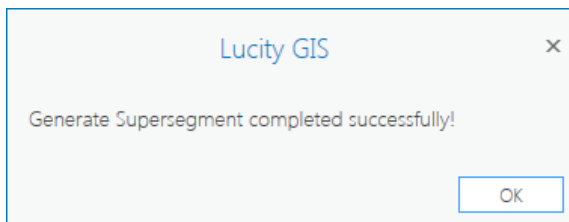
This tool creates Supersegment features in GIS based on what is defined in Lucy.

To use the Generate Supersegments tool:

1. Click the Generate Supersegments button under the Pavement Tools dropdown on the Lucy Toolbar. The following dialog will appear:



- Filter:** Supersegments within a selected Lucy filter will be generated.
  - All Records:** All records in the Supersegment module will be generated.
  - Currently Selected:** Only Supersegments selected in the map will be generated. This is disabled if there are no selected Supersegment features.
2. Once you have selected your desired option, the Supersegment Generate process begins. The following prompt will appear upon completion:

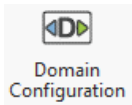


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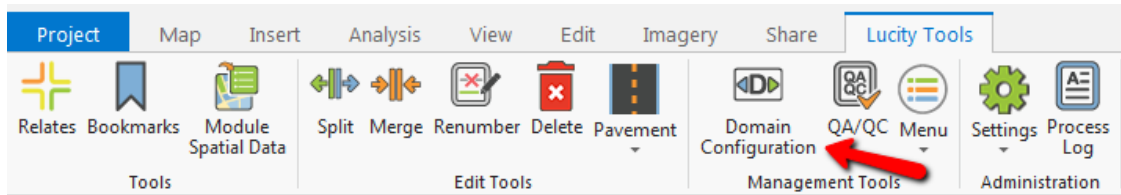


# Management Tools

## Domain Configuration



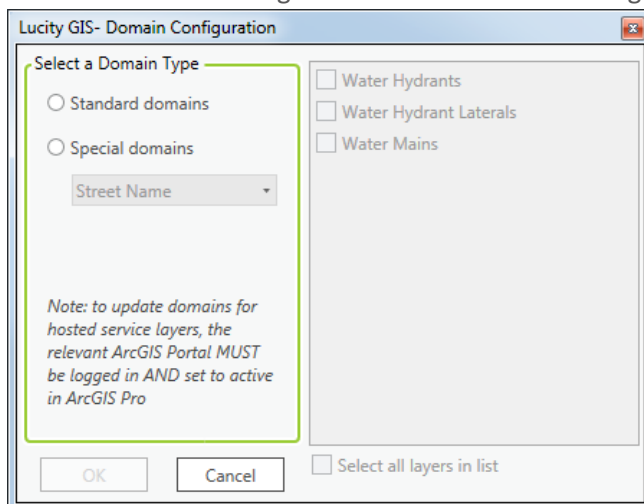
The Lucy Domain Configuration tool is used to manage synchronization between GIS domains and their corresponding Lucy picklists or libraries.



- The Lucy Domain Configuration tool can be used to update domains for feature classes and hosted service layers alike. To update hosted service layer domains, the user **MUST** be logged into the relevant ArcGIS Portal **AND** have it set as the active Portal in ArcGIS Pro.
- As of 2018r2, the tool can also be used to sync GIS subtypes with Lucy picklists.
- There are two types of GIS domains that Lucy updates:
  - **Standard Domains:** These are domains that are mapped to a Lucy inventory module's picklist.
  - **Special Domains:** These are domains that store values from another Lucy module or library. These include Street Name List, Street Light Library, MUTCD (Sign) Library, Tree Library, and Work Category, Maintenance Zone, and Alternate Zone.

To use the Lucy Domain Configuration tool:

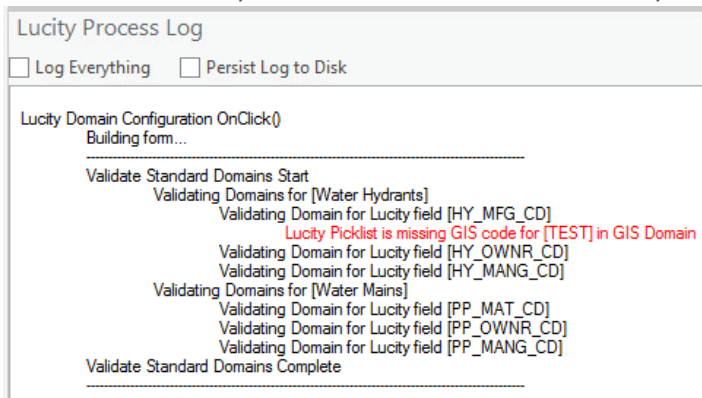
1. Click the Domain Configuration button. The following dialog will appear:



2. Select whether you would like to update Standard domains or Special domains.
  - Choosing Standard Domains requires you to select layers in the right-hand list for which to manage domains.
  - Choosing Special Domains requires you to select a type of Special Domain.
3. Click OK, and another dialog pertaining to your selection will appear.

## Standard Domains

- Once the domain validation process begins, the results are written to the process log. The tool validates each Lucy-linked domain in each selected layer:

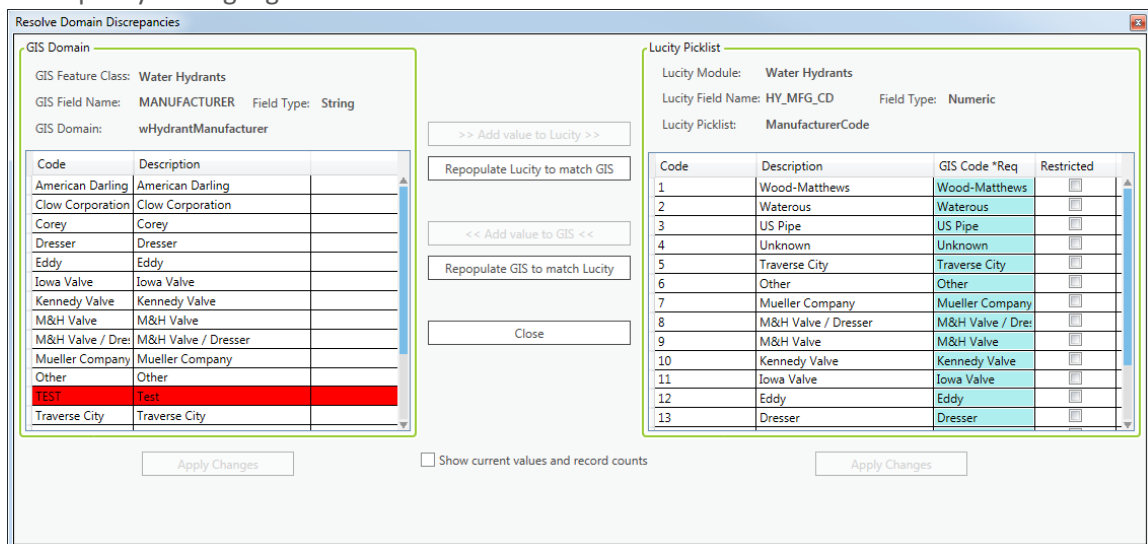


- Additionally, a form will display with a summary of the validation results. Rows highlighted in red indicate that discrepancies were found between the domain and the corresponding picklist.

Issues Found													
	No Issues	Missing Domain	Invalid Type	No Domain values	Domain Missing Value	Lucy Missing Value	Desc Don't Match	GIS Domain Name	Feature Class	GIS Field	Lucy Field	GIS Field Type	Lucy Field Type
Manage	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	HydrantManufacturer	Water Hydrants	MANUFACTURER	HY_MFG_CD	String	Numeric
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AssetOwner	Water Hydrants	OWNEDBY	HY_OWNR_CD	SmallInteger	Numeric
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AssetManager	Water Hydrants	MAINTBY	HY_MANG_CD	SmallInteger	Numeric
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	piPipeMaterial	Water Mains	MATERIAL	PP_MAT_CD	String	Numeric
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AssetOwner	Water Mains	OWNEDBY	PP_OWNR_CD	SmallInteger	Numeric
Manage	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	AssetManager	Water Mains	MAINTBY	PP_MANG_CD	SmallInteger	Numeric

- **Manage:** Opens the Domain Compare dialog to manage the selected domain.
- **No Issues:** The domain is in sync with the Lucy picklist.
- **Missing Domain:** The GIS field has no domain applied to it.
- **Invalid Type:** The GIS field has a domain, but it is not a coded-value domain.

- **No Domain values:** The GIS field's domain is empty.
  - **Domain Missing Value:** The domain is missing a coded value that exists in the Lucity picklist.
  - **Lucity Missing Value:** The Lucity picklist is missing a coded value that exists in the GIS domain.
  - **Desc Don't Match:** The GIS domain has a type value that is different from that of the corresponding Lucity code value (or vice versa).
  - **GIS Domain Name:** The name of the GIS domain.
  - **Feature Class:** The feature class (or layer) name.
  - **GIS Field:** The name of the GIS field that is using the domain.
  - **Lucity Field:** The name of the Lucity field that the GIS field is mapped to.
  - **GIS Field Type:** The data type of the GIS field.
  - **Lucity Field Type:** The data type of the Lucity field.
  - **Revalidate:** Re-runs the validation. This is useful to do after making changes to the domain and/or picklist.
  - **Close:** Closes the dialog.
- To resolve discrepancies that are found for a given domain, click Manage. The following dialog will appear. Information about the GIS Domain (or Subtype) is shown on the left, and information about the Lucity Picklist is shown on the right. In both top grids, rows that have a discrepancy are highlighted in red.



- **GIS Feature Class:** The feature class (or layer) that the domain is assigned to.
- **GIS Field Name:** The GIS field that uses the domain.

- **Field Type:** The data type of the GIS field.
- **GIS Domain:** The name of the domain.
- Domain values grid.
  - **Code:** The coded values for the domain.
  - **Description:** The descriptions for each coded value in the domain.
- **Apply Changes:** Commits the changes to the GIS domain.
- **Add Value to Lucity:** Adds the selected domain value to the Lucity picklist.
- **Repopulate Lucity to match GIS:** Overwrites the entire Lucity picklist with the values from the GIS domain.
- **Add Value to GIS:** Adds the selected picklist value to the GIS domain.
- **Repopulate GIS to Match Lucity:** Overwrites the entire GIS domain with the values from the Lucity picklist.
- **Close:** Closes the dialog.
- **Show current values and record counts:** Expands two more data grids that display how many records in GIS and Lucity are using each domain value or picklist value, respectively.

Show current values and record counts

Current GIS Values		
Code	Description	# of Records
American Darling	American Darling	9
Clow Corporation	Clow Corporation	1
Corey	Corey	0
Dresser	Dresser	0
Eddy	Eddy	0
Iowa Valve	Iowa Valve	0
Kennedy Valve	Kennedy Valve	0
M&H Valve	M&H Valve	0
M&H Valve / Dre	M&H Valve / Dresser	0
Mueller Company	Mueller Company	1951
Other	Other	0

Current Lucity Values			
Code	Description	GIS Code	# of Records
1	Wood-Matthews	Wood-Matthews	0
2	Waterous	Waterous	2
3	US Pipe	US Pipe	0
4	Unknown	Unknown	0
5	Traverse City	Traverse City	0
6	Other	Other	0
7	Mueller Company	Mueller Company	1951
8	M&H Valve / Dresser	M&H Valve / Dre	0
9	M&H Valve	M&H Valve	0
10	Kennedy Valve	Kennedy Valve	0
11	Iowa Valve	Iowa Valve	0

- **Lucity Module:** The module in Lucity that the feature class (or layer) is linked to.
- **Lucity Field name:** The Lucity field that the GIS field is mapped to.
- **Field Type:** The data type of the Lucity field.
- **Lucity Picklist:** The name of the Lucity picklist.
- Picklist values grid.
  - **Code:** The coded values for the picklist.
  - **Description:** The descriptions for each coded value in the picklist.

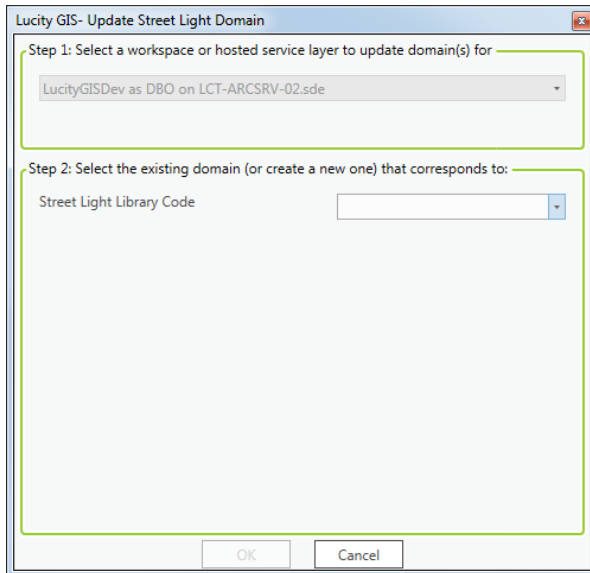
- **GIS Code:** The code values that the GIS domain uses. This is required if the data type of the GIS field does not match that of the Lucity field. These values are used to translate back and forth between GIS and Lucity.
  - **Restricted:** Indicates whether the picklist value is restricted. If it is, then only the GIS Code can be modified.
- **Apply Changes:** Commits the changes to the Lucity picklist.

## Special Domains

- A different dialog will display for each type of Special Domain option that is selected. They all have the following two steps:
  - **Step 1: Select a workspace or hosted service layer to update domain(s) for:** This is the workspace (file geodatabase, enterprise geodatabase, or hosted service layer) that will take the domain update. This also is used to build the dropdown list(s) of available domains.
  - **Step 2: Select the existing domain (or create a new one) that corresponds to:** For each Lucity field or picklist, the user has a dropdown list of available domains. In that dropdown list, the user must opt to do one of the following:
    - Choose an existing domain to update.
    - Create a new domain.
    - Skip the domain update.
- Street Name Domains:

- **Street direction (ADR\_DIR):** Address direction from the Street List.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNameDirection* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Street Direction field (typically \*\_ADR\_DIR).
- **Street prefix type (ADR\_PT):** Address prefix type from the Street List.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNamePrefixType* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Street Prefix Type field (typically \*\_ADR\_PT).
- **Street name (ADR\_STR):** Address street name from the Street List.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNameName* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Street Name field (typically \*\_ADR\_STR).
- **Street type (ADR\_TY):** Address street type from the Street List.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNameType* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Street Type field (typically \*\_ADR\_TY).
- **Street suffix (ADR\_SFX):** Address street suffix from the Street List.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNameSuffix* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Street Suffix field (typically \*\_ADR\_SFX).
- **Composite street name:** All the above fields combined into one field.
  - Domain code and type are equal.
  - Domain name is *Lucity.StreetNameComposite* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Composite Street Name field (those shown in green in GIS/GDB Configuration).

- **Street name ID:** Record number from the Street List.
  - Domain code is the record number and domain type is a collection of all the street fields combined into one field.
  - Domain name is *Lucity.StreetNameList* if created by Lucity.
  - This domain will be automatically associated to all fields linked to the Lucity Street Name ID field (SN\_ST\_SID, SN\_ST1\_SID, SN\_ST2\_SID).
- Street Light Domain:



- **Street Light Library Code:** Library code and text from the Street Light Library.
  - Domain code is the library code and domain type is the library text.
  - Domain name is *Lucity.StreetLight* if created by Lucity.

Notes: \_\_\_\_\_

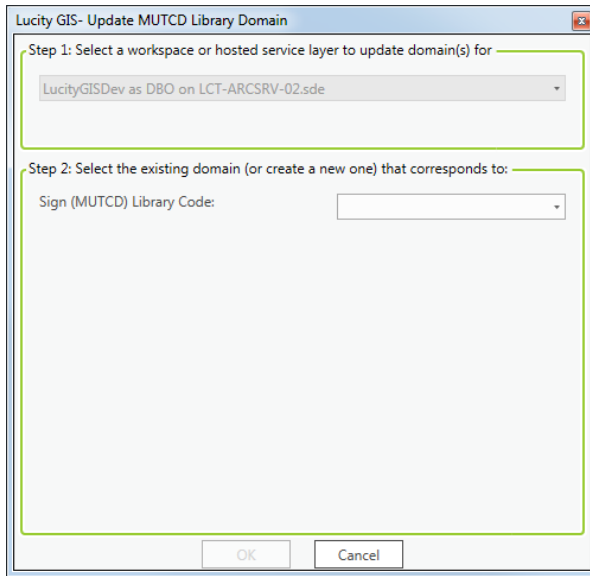
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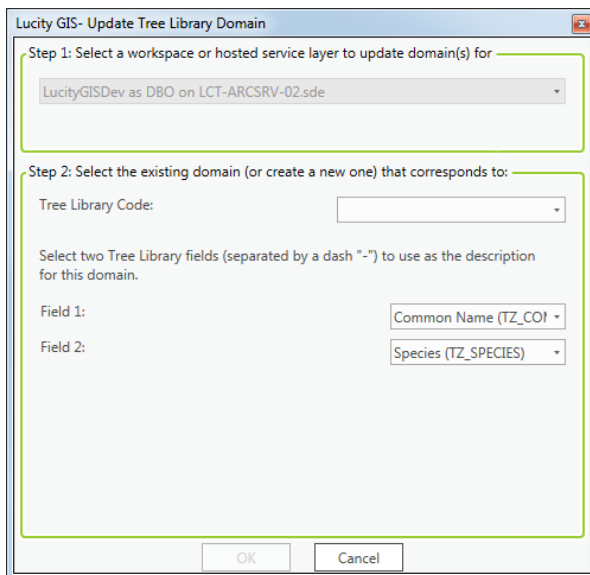
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- MUTCD (Street Sign) Domain:



- **Sign (MUTCD) Library Code:** Library code and sign description from the MUTCD Library.
  - Domain code is the library code and domain type is the library code and the sign description, separated by a dash ("-").
  - Domain name is *Lucity.MUTCD* if created by Lucity.

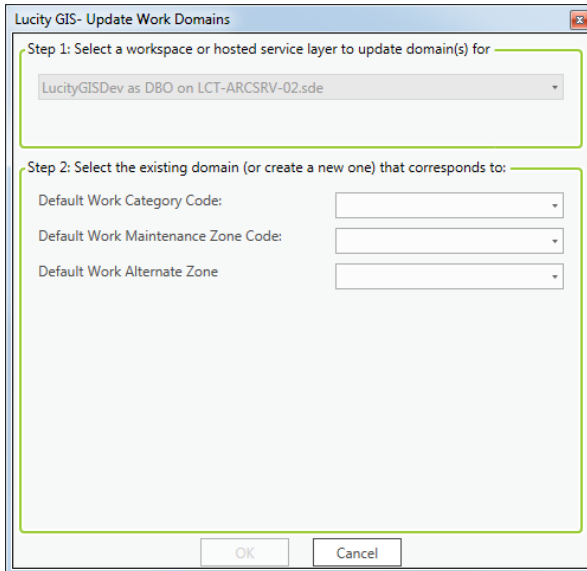
- Tree Library Domain:



- **Tree Library Code:** Library code and combination of fields from the Tree Library.
  - Domain code is the library code and domain type is defined by the user.
  - Domain name is *Lucity.TreeLibrary* if created by Lucity.



- **Select two Tree Library fields (separated by a dash “-”) to use as the description for this domain:** The user must pick two library fields to use as the domain description.
  - These are separated by a dash (“Field 1 – Field 2”).
  - By default, they are Common Name and Species, respectively.
- **Work Domains:**



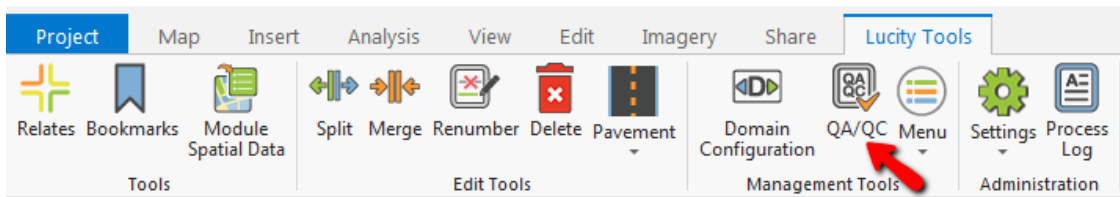
- **Default Work Category Code:** Category code and description from Work Flow Setup.
  - Domain code is the category code and domain type is the category code and the category description, separated by a dash (“-”).
  - Domain name is *Lucity.WorkCategory* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Work Category Code field (typically \*\_BR\_CD).
- **Default Work Maintenance Zone Code:** Maintenance zone code and description from Work Flow Setup.
  - Domain code is the maintenance zone code and domain type is the maintenance zone code and the maintenance zone description, separated by a dash (“-”).
  - Domain name is *Lucity.WorkMaintenanceZone* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Work Maintenance Zone Code field (typically \*\_MZONE\_CD).

- **Default Work Alternate Zone Code:** Alternate zone code and description from Work Flow Setup.
  - Domain code is the alternate zone code and domain type is the alternate zone code and the alternate zone description, separated by a dash ("-").
  - Domain name is *Lucity.WorkAlternateZone* if created by Lucity.
  - This domain will be automatically associated to all fields linked to a Lucity Work Alternate Zone Code field (typically \*\_AZONE\_CD).



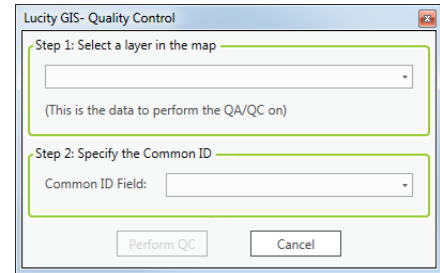
### QA/QC

The Lucity QA/QC tool can be used to identify possible problems with GIS data, regardless of whether the layer is linked to Lucity.



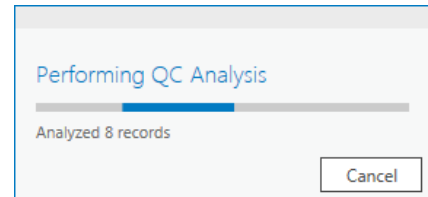
- The QA/QC tool performs five tests against a given GIS layer, the results of which are written to the Process Log. The tests are:
  - Features that are missing a Common ID.
  - Features that have duplicate Common IDs.
  - Features with empty geometries.
  - Features with duplicate geometries.
  - Features with non-simple geometries.

- To use the QA/QC tool:
  - Click the QA/QC button. The following dialog will appear:

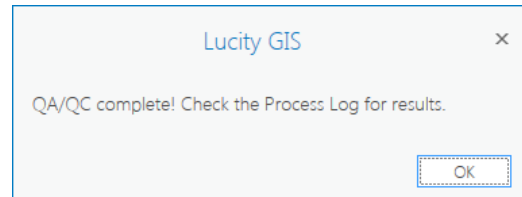


- Step 1: Select a layer in the map:** The layer to run QA/QC against. This does not have to be linked to Lucy.
    - Step 2: Specify the Common ID:** The field in the chosen layer that stores the unique identifier. This is used for some of the QA/QC tests.

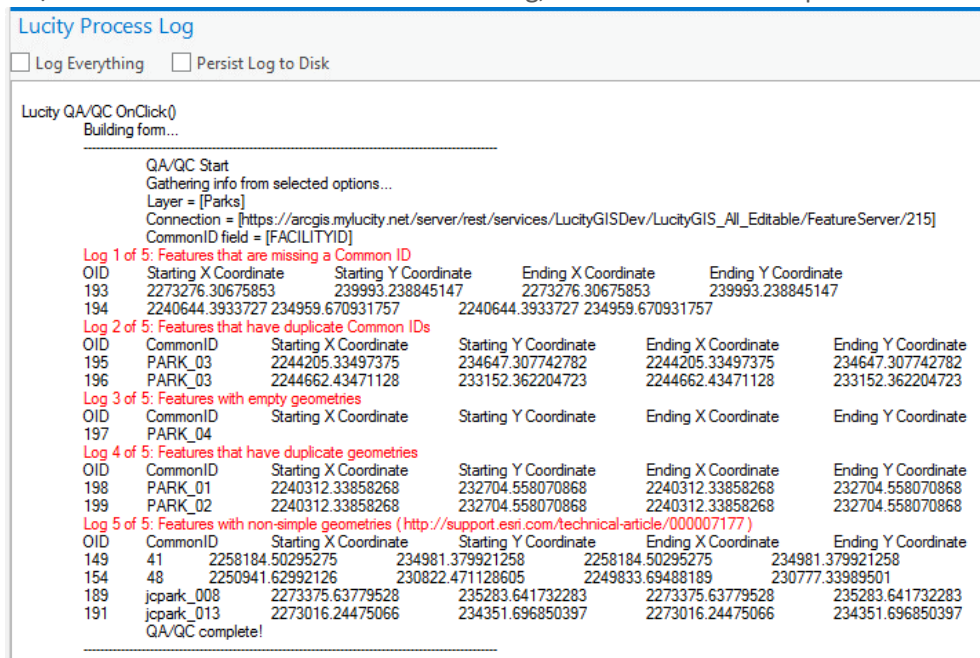
- Once you have set your desired options, click Perform QC. A cancelable progress indicator will appear:



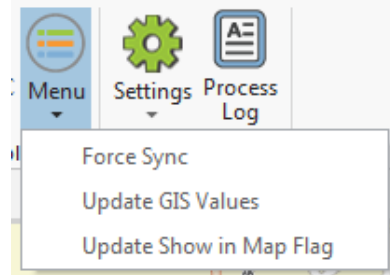
- Once the analysis is complete, the following prompt will appear:



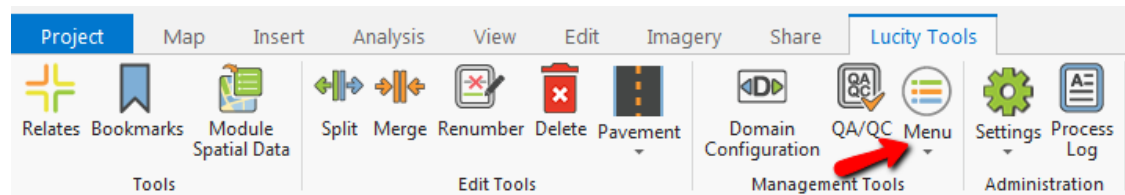
- QA/QC results are written to the Process Log, which can then be exported as a file:



## Management Tools Menu



The Management Tools Menu provides 3 tools used to manage/update data in both GIS and Lucy.



### Force Sync

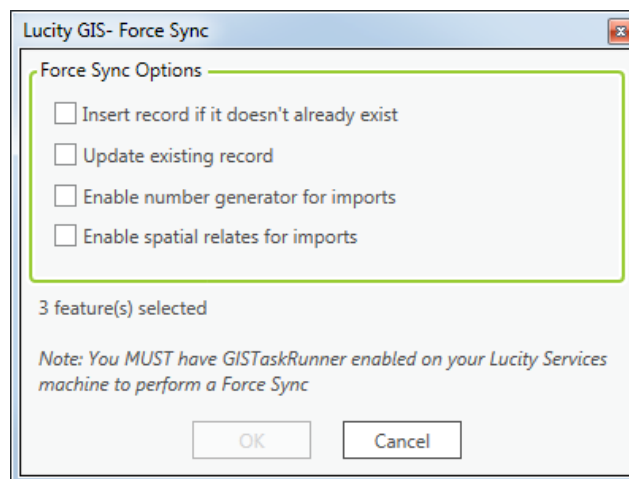
This tool updates the Lucy system with data from the features selected in the map. The tool works by kicking off a temporary GIS sync task on the fly, based on what features are selected in the map. The tool can be run against multiple Lucy-linked layers at a time.

Requirements:

- Lucy Services must be running and GISTaskRunner must be enabled on the Lucy Services machine.
- The map layers to run Force Sync against must be feature service layers, since the GIS tasks require feature services to run.

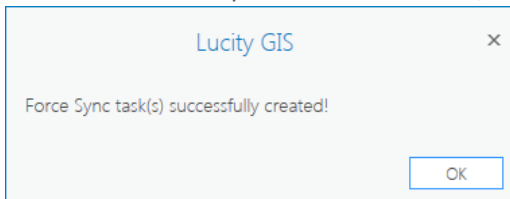
To use the Force Sync tool:

1. Select the features in the map that you would like to sync with Lucy and click the Force Sync button. The following dialog will appear:



- **Insert record if it doesn't already exist:** Allows new records to be inserted into Lucy.
- **Update existing record:** Allows existing records to be updated in Lucy.
- **Enable number generator for imports:** Number generators will be utilized to assign Common IDs for new records.
- **Enable spatial relates for imports:** Spatial relationships will be processed during the sync.

2. Once the desired options have been set, click OK. The following prompt will appear:



3. A GIS task for the selected records for each layer will be queued up in Lucy and will process automatically the next time the task processor runs. This should take no longer than a few minutes.
4. Since there is no GIS task interface in ArcGIS Pro to view logs, the user can view them in Lucy web under Admin Portal > Web App Management > GIS Scheduled Tasks Log:

Task ID	Layer Name	Recorded Date/Time	Status	Edit Type	Edit Description	Error Type
39	wHydrant	7/24/2018 10:03 AM	Import Complete.	N/A		
39	wHydrant	7/24/2018 10:03 AM		Add	Inserted new record	0
39	wHydrant	7/24/2018 10:03 AM	Starting Import. Number of records to process: [1]	N/A		
39	wHydrant	7/24/2018 10:03 AM	Force Sync Scheduled Task: Start Process	N/A		
36	trPolePost	7/23/2018 10:59 AM	Import Complete.	N/A		
36	trPolePost	7/23/2018 10:59 AM		Add	Inserted new record	0
36	trPolePost	7/23/2018 10:58 AM		Update	Updated existing record	0
36	trPolePost	7/23/2018 10:58 AM		Update	Updated existing record	0
36	trPolePost	7/23/2018 10:58 AM		N/A	Invalid address: [W 93rd St] and system settings require address to be valid.	0
36	trPolePost	7/23/2018 10:58 AM		Update	Updated existing record	0
36	trPolePost	7/23/2018 10:57 AM		Update	Updated existing record	0
36	trPolePost	7/23/2018 10:57 AM		N/A	Invalid address: [W 93rd St] and system settings require address to be valid.	0
36	trPolePost	7/23/2018 10:57 AM		Update	Updated existing record	0
36	trPolePost	7/23/2018 10:56 AM		N/A	Invalid address: [W 93rd St] and system settings require address to be valid.	0
36	trPolePost	7/23/2018 10:56 AM	Starting Import. Number of records to process: [6]	N/A		
36	trPolePost	7/23/2018 10:28 AM		N/A	Invalid address: [W 93rd St] and system settings require address to be valid.	0

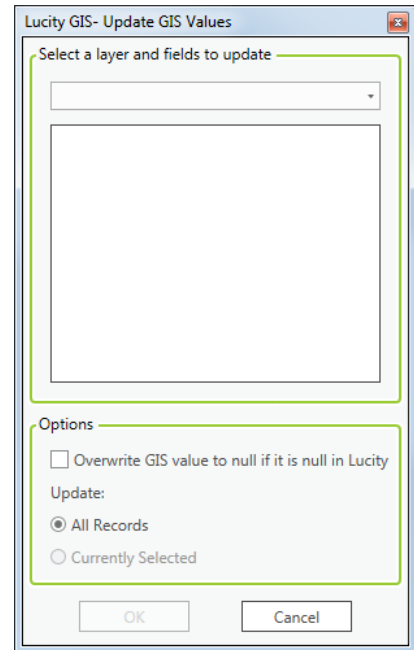
## Update GIS Values

This tool updates records in GIS with data from the corresponding Lucity records.

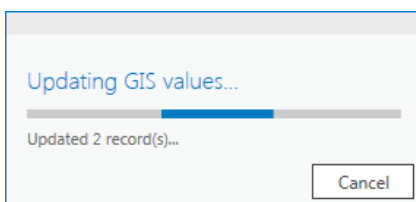
To use the Update GIS Values tool:

1. Click the Update GIS Values button. The following dialog will appear:

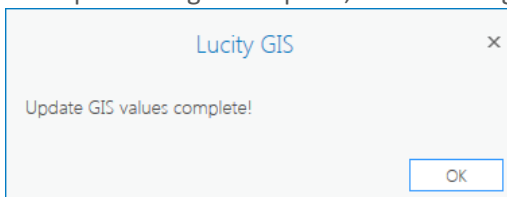
- **Select a layer and fields to update:** Choose a Lucity-linked layer in the map from the top dropdown list. Once a layer is chosen, the list box below the dropdown list will be populated with Lucity-linked fields from the layer. Clicking on these fields will add them to the list of fields to be included in the update.
- **Overwrite GIS value to null if it is null in Lucity:** If checked, if a given value is null in Lucity, then the corresponding GIS record will have its value updated to null. Otherwise, the update for that field will be skipped for that GIS record.
- **All Records:** All records in the layer will be updated.
- **Currently Selected:** Only records currently selected in the map from the layer will be processed. This option is only available if the chosen layer has a map selection.



2. Once you have selected the options to your desired configuration, click OK. A cancelable progress dialog will appear:



3. Once processing is complete, the following prompt will appear:

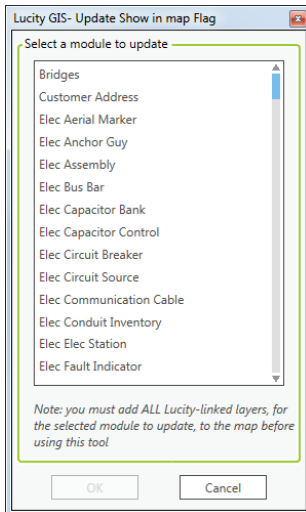


## Update Show in Map Flag

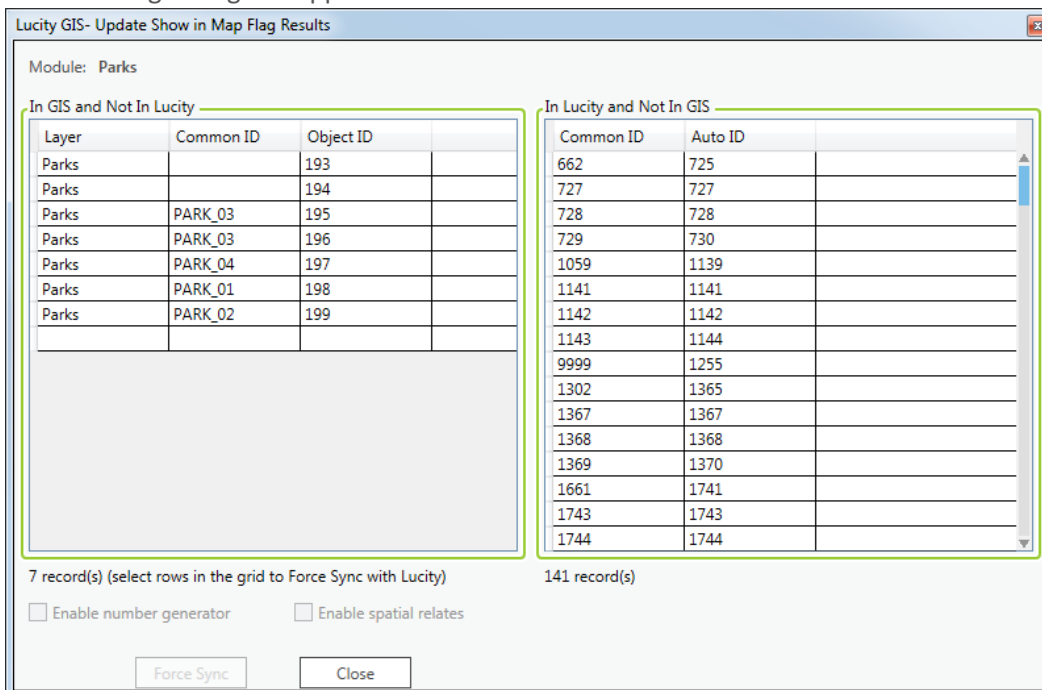
This tool looks for matching features in GIS for each record in a Lucity module and updates the Lucity record's In Map flag based on whether a match is found in GIS.

To use the Update Show in Map Flag tool:

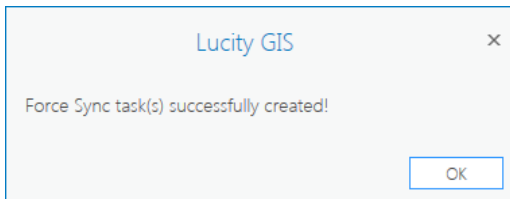
1. Click the Update Show in Map Flag button. The following dialog will appear:



- **Select a module to update:** Pick from a list which module you would like to update the in-map flag for. It is required that all layers linked to the given module are present in the map.
2. Once you have selected a module, click OK. The tool will run and when processing is complete, the following dialog will appear with results:



- **Module:** The Lucity module for which the in-map flag was updated.
  - **In GIS and Not In Lucity:** Records that exist in GIS but have no match in Lucity. Selecting rows in this table will enable Force Sync options.
    - **Layer:** The GIS layer that the feature belongs to.
    - **Common ID:** The value in the GIS field that is mapped to Lucity's Common ID.
    - **Object ID:** Esri's Object ID for the feature.
  - **In Lucity and Not In GIS:** Records that exist in Lucity but have no match in GIS.
    - **Common ID:** The unique identifier for the Lucity record.
    - **Auto ID:** The record number, or database ID, for the Lucity record.
  - **Enable number generator:** If a Force Sync is kicked off, the number generator will be utilized to assign Common IDs to new records.
  - **Enable spatial relates:** If a Force Sync is kicked off, spatial relationships will be processed during the sync.
3. For GIS records that don't exist in Lucity, there is an option to run an import Force Sync task. To do this, select records in the grid that you would like to import into Lucity, set whether you would like to utilize a number generator or spatial relationships, and click Force Sync. The following prompt will appear once the Force Sync task has been queued:



Notes: \_\_\_\_\_

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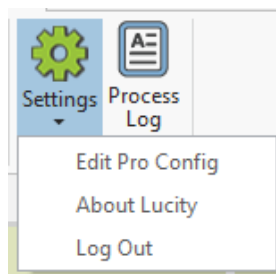
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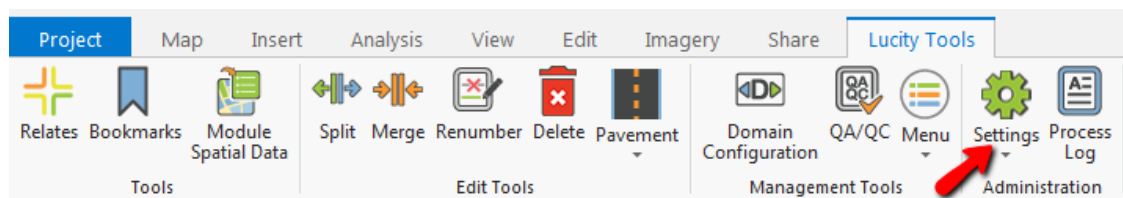


## Administration

### Settings

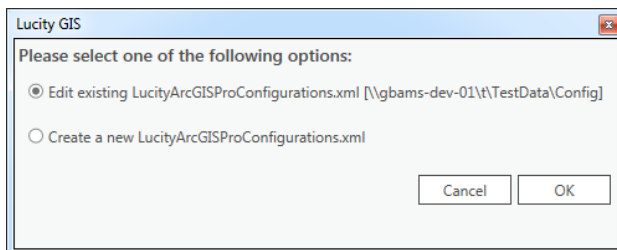


There are three tools currently under Lucy Settings: Edit Pro Config, About Lucy, and Log Out.



### Edit Pro Config

This tool lets you modify the currently configured `LucityArcGISProConfigurations.xml` or create a new `.xml`. When clicked, the following prompt will appear:



- Select if you wish to edit the existing `.xml` or create a new one and click OK.
- See the Setup/Configuration section of this session for more details about Edit Pro Config.

### About Lucy

This tool displays a dialog full of product information, including the add-in version, Lucy server version, Lucy contact information, and license agreement.

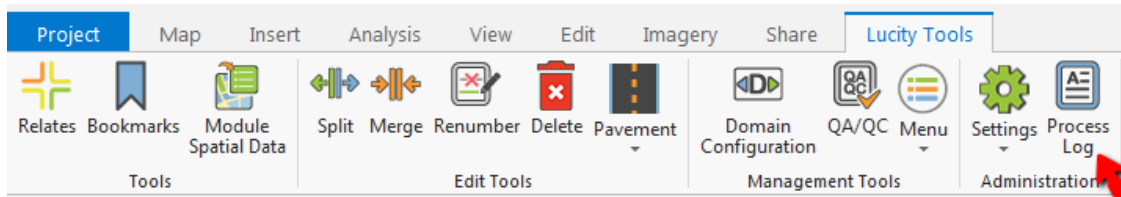
### Log Out

This tool logs the user out of the Lucy Internal REST API. This is useful if you are looking to switch Lucy clients without closing completely out of ArcGIS Pro.

## Process Log

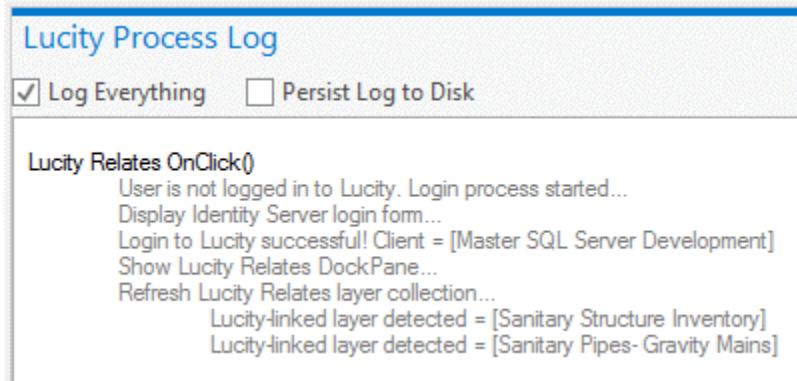


The Lucy Process Log is a tool to help troubleshoot problems that may arise while using the Lucy ArcGIS Pro add-in. Information is written to the log in real-time, and is color-coded based on the type of logging.



Here is the color-coding convention:

- Black lettering – Standard logging.
- Gray lettering – Extra logging (added by checking the Log Everything option).
- Orange lettering – Process warnings.
- Red lettering – Process errors.



**Persist Log to Disk** allows the contents of Process Log to be copied to the local machine at %APPDATA%\Lucy\logs. It is recommended that this remain turned off, unless when troubleshooting cases where ArcGIS Pro is crashing, as log growth will take up disk space.

By default, the Process Log is not visible, but the user can view it by clicking the Process Log button on the Lucy Toolbar. Errors are always written to the log in red, and if an error occurs, the user will be prompted to check the Process Log for more error details.

There is a menu on the far-right of the Process Log with additional options:

- **Clear Log:** Clears all text currently inside of the Process Log.
- **Export:** Saves the contents of the log to a rich-text (.rtf) file on the user's local machine. This is particularly helpful for Lucy Support, as a user can easily export it and email it to support staff for review.

