What’s New in 2016
Follow Along Icons

Desktop
Web
Toolkit
Mobile
System Changes

- SQL Server 2005 no longer supported.
- Internet Explorer 9 no longer supported.
- Windows Mobile Lucity PDA Barcode app no longer supported.
- Must use Lucity Mobile versions 2.0+ for Lucity 2016 (iOS and Android).
- PACP/MACP TV Imports must use the Lucity Import and Update tool.
System Changes

• Relative Document Pathing **no longer supported**; this was setup in Lucity Client Maintenance.

• Field Definitions that have been customized **must now be locked**.

• The FieldDef.mdb database is **no longer used** and **no method to import them from MS Access in bulk**. Field definitions are **now** stored directly in the database.

Video: [https://www.youtube.com/watch?v=eMaClEblUQk](https://www.youtube.com/watch?v=eMaClEblUQk)
Module Enhancements
Module Enhancements

• Added More User-Defined Fields to many inventory/inspection modules. All inventory/inspection modules should have at least 60 user-defined fields.
Module Enhancements

**Equipment Inventory**

In Equipment Parts Grid, Users can now select a record and use the **Open in Another View** button to jump to the related **Work Material** record.
Module Enhancements
Module Enhancements

Plant Process

- Standardized module to make it an Asset Module
  - Unique ID
  - Create WO, Request, PM
  - Show in GIS
  - All other standard features
Module Enhancements

Plant

In Plant Processes, Added Subprocesses to enable users to link processes with a parent-child relationship. Works like equipment dependents.
Module Enhancements

Create a Plant Process with the highlighted items to make sure you can identify the process as a subprocess.
Module Enhancements

Add newly created subprocess to the parent process as a dependant
Module Enhancements

Sewer

New Inspection Standards Compliance

- MACP v7.01
- PACP v7.01
- LACP v7.01
Module Enhancements

**Storm**

- New Inspection Standards Compliance
  - PACP v7.01
Module Enhancements

Transportation

Added linked **fields** to the following assets

- Anti-Icing Pump Houses
- Automatic Gates
- Camera Locations
- DMS
- PDMS
- Weather Stations
- Sensors
- Kiosks
Module Enhancements

Transportation-Linked Fields Added

- Street Segment, Intersection, Subsegment, Supersegment IDs
- Traffic Controller, Cabinet, Street Pole, Street Mast Arm IDs
- Equipment ID
Module Enhancements

Trees/Parks

In Park Inventory, added grids to display related **Distribution** and **Recycled Water Meters**.
Module Enhancements

Water-Distribution and Recycled

In Meter Device, Now can be linked to Parks.
Module Enhancements

Water-Distribution

In AMR and Meter Devices, When **AMR and Meter Devices** are installed at a **Meter Location**, **Lucity** updates the devices’ **XY coordinates** with the **Meter Location** record’s XY coordinates.

Behavior also exists in **Raw and Recycled Water modules**
Module Enhancements

<table>
<thead>
<tr>
<th>Meter Location No</th>
<th>X Coordinate</th>
<th>Y Coordinate</th>
<th>Property ID Tag</th>
<th>Address</th>
<th>Dist</th>
</tr>
</thead>
<tbody>
<tr>
<td>NPO640-00013</td>
<td>2266727.19290431</td>
<td>241088.35240740</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Water Flow Meter Location Field Ties (0)

<table>
<thead>
<tr>
<th>AMR Number</th>
<th>Serial Number</th>
<th>Meter Device</th>
<th>Description</th>
<th>Type</th>
<th>Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>TestingLocate001</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Water Meter Location AMR History (1)

<table>
<thead>
<tr>
<th>AMR Number</th>
<th>X Coordinate</th>
<th>Y Coordinate</th>
<th>Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>TestingLocate001</td>
<td>2266727.19290400</td>
<td>241088.35240700</td>
<td>Single</td>
</tr>
</tbody>
</table>
Module Enhancements

Water-Distribution (Raw and Recycled)

In AMR and Meter Devices, when AMR and Meter Device are removed from a Meter Location, the device's XY Coordinates are reset to zero.

[Image of AMR and Meter Device interface with highlighted XY Coordinates]
Module Enhancements

Water-Distribution

In Direct Hydrant Flushing, Created a new module that enables agencies to enter simple **Flushing** records that are tracked against a single **Hydrant**.
Module Enhancements

Open a Tab

Favorites

Menu

Modules

- Inspections
- Tests
- System Valves
- Control Valves
- Water Nodes
- Storage Facilities
- Supply Sources
- Vaults and Structures
- Sample Stations
- Pump Stations
- Mainbreaks
- Flushing
- Flushing Routes
- History
- Direct Hydrant Flushing
- Raw Water
- Recycled Water
- Backflow Preventers
- Water Loss
- Water Sites

Recent

- Water AMRs
- Water Flow Meter Locations
- Water Flow Meter Devices
- Park Meter Consumption Library
- Park Meter Consumption History
- Water Options
- Parks
- Street ITS Automated Gates
- Sewer Service Lateral Permits

Cancel
Module Enhancements

Water-Distribution

In Hydrant Inventory, Added a grid to display related Direct Hydrant Flushing records.
Module Enhancements

Water-Distribution

In Work Options, Added an option (In Flushing Route, Copy Hydrants, Valves or Pipes to Work Orders with Tool) that directs the Create Flushing History and WO toolkit in the Hydrant Flushing module to copy the route’s Hydrants, Valves or Pipes to the new Work Order.
Module Enhancements

WATER

- General
  - Integration with Facility
  - Integration with Equipment
  - Eden Meter Integration
  - Populate Service Tap ID with Acct No and Tap No
  - Force Uniqueness for Address and Tap No for Service Tap Record
  - Update Main Break with Pipe Inventory Record Info
  - In Flushing Route, Copy Hydrants to Work Orders with Tool
  - In Flushing Route, Copy Valves to Work Orders with Tool
  - In Flushing Route, Copy Pipes to Work Orders with Tool
- Backflow
Module Enhancements

Water-Distribution

With these Work Options enabled, they have the same affect when the user clicks the Create Work Order button on the Flushing Route.
Module Enhancements

Water-Distribution (Raw and Recycled)

🎉 In Supply Source, Now can be linked to Water Pump records.
Module Enhancements

Work

Employee Cert and Classes

- Added new fields and functionality to both products making it easier to track Certifications, Classes and the costs of these classes.
Module Enhancements

Work

- PM/Template
  - Grouped PM
    - Added the System ID 1 and Description fields so that the Grouped PM Asset Grid was more useful
Module Enhancements

**Work**

- **PM/Template**
  
  Added a **WO Template** checkbox to indicate that the record can be used as a template for a new **Work Order**. Previously, all records not marked as a **Scheduled PM** were treated as templates.
Module Enhancements

Work

PM/Template

- Added a PM Template checkbox to indicate that the record can be used as a template for a new PM.
Module Enhancements

Work

PM/Template

- Added an **Inactive** checkbox to mark a record as inactive. These records do not appear in **Template** lists and are ignored by the **PM** service.

Video: [https://www.youtube.com/watch?v=VAEAthJ1Tos](https://www.youtube.com/watch?v=VAEAthJ1Tos)
Module Enhancements

Work

PM/Template

- Added an **Affected PM** checkbox to indicate that the PM bases its schedule on another PM’s schedule.
**Module Enhancements**

**Work**

- **Work Flow Setup Modules**
  - Cause, Contractor, Crew, Employee, Fluid, Material, and Task Setup
    - Added Division code/type fields
Module Enhancements

Work

Work Flow Setup Modules

Crew Setup

- Added an **Hours per Day** field. *Lucity* gives this field precedence over the **Lead Workers** or **Supervisor’s Hours per Day** fields (in **Employee Setup**) or the **Hours per Day** option (in the **Work program**)
  - Also added this field in Employee Setup to establish the number of hours per day the lead workers and supervisors work
Module Enhancements
Module Enhancements

Work

Work Orders

- Added a **Project ID** field to enable users to manually link a **Work Order** to a **Project**. To do this, the **Work Order’s Main Task** must match one of the **Project Tasks**.
Module Enhancements

Work-Project Management

The Project Management modules were added to the Lucity Web’s Work program in 2016. All enhancements requested during ACT 2015 have been completed in the Desktop. However, there are few modules missing tools still in the web.
Module Enhancements

Parts Warehousing

For Part Transaction Logs, Lucity now tracks **quantity** and **unit costs** for each **Part** following every transaction in which the part is used.
Module Enhancements

Parts Warehousing

For Part Orders, Added a Warehouse field to specify the Warehouse for which the Purchase Order is being made.
Module Enhancements

Part Purchase Orders Form

- PO Number: 111009
- Date: 3/23/2016
- Vendor ID: 0006 Global Industrial
- Vendor Invoice #: 15-88795
- Warehouse ID: OPB
- Facilities

-Generic application interface with navigation buttons for Home, Part Purchase Orders, Vendors.
Module Enhancements

Parts Warehousing

When the Warehouse is specified, a list of Parts display in the Add Multiple Parts tool must belong to the Vendor and be found in the Warehouse.
Module Enhancements

1. Specify Parts to Vendor

2. In PO, add Multiple Parts in the Child Grid

3. Select All of the Parts to associate to the PO
Module Enhancements

Parts Warehousing

In Purchase Orders, Added Account # and Project No-Acct Fields.
Administration Tool
Administration Tool

Activities Manager

🎉 Modified the interface to reflect changes in Lucity’s Mobile Applications, which no longer requires activation codes. The Active User Manager now simply displays a list of devices that have an active license for Lucity Mobile.
## Administration Tool

### Active User Manager

<table>
<thead>
<tr>
<th>User</th>
<th>Application</th>
<th>Activation Date/Time</th>
<th>IP Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Lucity Mobile REST</td>
<td>3/29/2016 8:44:59 AM</td>
<td>10.1.10.10</td>
</tr>
</tbody>
</table>
In the Security Tab, added the following settings.

- Enable `diag.html` Server Information for debugging, that disables part of the Lucity Web diagnostics page to protect server information if an agency runs Lucity Web over the open internet

- How to Handle Frames for (Internal or Citizen) Web Pages – to protect against the small threat of click-jacking
In the Security Tab, added the following settings.

- Can users change Password from Mobile setting to enable administrators to control whether users can change their Lucity passwords from mobile devices.
## Administration Tool

### System Settings

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Add X-FRAME-OPTIONS to ALL Response Headers (recommended value is to le...</td>
<td></td>
</tr>
<tr>
<td>Allows access to web services with certificate errors</td>
<td>FALSE</td>
</tr>
<tr>
<td>Block SQL for the Lucity Citizen Portal REST API</td>
<td>TRUE</td>
</tr>
<tr>
<td>Block SQL for the Lucity REST API</td>
<td>TRUE</td>
</tr>
<tr>
<td>Can Users Change Password From Mobile</td>
<td>FALSE</td>
</tr>
<tr>
<td>Disable DOS protection</td>
<td>FALSE</td>
</tr>
<tr>
<td>Enable Aggressive Javascript Injection Detection</td>
<td>FALSE</td>
</tr>
<tr>
<td>Enable diag.html Server Information for debugging (set to FALSE if Internal Web A...</td>
<td>TRUE</td>
</tr>
<tr>
<td>Flag that denotes if SSL is being used for ChangePassword feature</td>
<td>FALSE</td>
</tr>
<tr>
<td>How To Handle Frames for Citizen Web Pages (DENY, SAMEORIGIN, blank)</td>
<td>FALSE</td>
</tr>
<tr>
<td>How To Handle Frames for Internal Web Pages (DENY, SAMEORIGIN, blank)</td>
<td></td>
</tr>
<tr>
<td>List of values that are not allowed in search filters to reduce risk of getting hacked</td>
<td></td>
</tr>
<tr>
<td>Regex for range of unicode characters allowed in SQL</td>
<td>[\u0000-\u007F]</td>
</tr>
</tbody>
</table>
In the Security-Passwords Tab, added the following settings.

- **Send an email to the user when their password changes**, that automatically alerts a user when his or her password changes.
- **Allow easily guessed passwords**; when disabled, this prevents users from using common passwords like ‘password’, 'Lucity’, etc.
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow easily guessed passwords</td>
<td>FALSE</td>
</tr>
<tr>
<td>Days before password expiration to warn user</td>
<td>10</td>
</tr>
<tr>
<td>Days before password expiration to warn user with Email</td>
<td>3</td>
</tr>
<tr>
<td>Maximum password age</td>
<td>99999</td>
</tr>
<tr>
<td>Minimum Length For Passwords (Must be 1 or greater)</td>
<td>1</td>
</tr>
<tr>
<td>Password must meet complexity requirements</td>
<td>FALSE</td>
</tr>
<tr>
<td>Send an email to the user when their password changes</td>
<td>TRUE</td>
</tr>
</tbody>
</table>
In Documents Tab, added the following settings.

- Documents with file size greater than given size, are opened using file path. Default size is 500mb, which limits the size of documents displayed within Lucity. If this document is above the set limit, the system provides a link to the document, rather than displaying it.

- Enable External Document Integration setting to let administrators integrate Lucity Web with a third-party document-storage system.
**Administration Tool**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Documents with file size greater than given size, are opened using file path. Default...</td>
<td>500</td>
</tr>
<tr>
<td>Enable External Document Integration</td>
<td>FALSE</td>
</tr>
<tr>
<td>Error to display if a file upload fails in the Citizen app</td>
<td></td>
</tr>
<tr>
<td>List of document types that are allowed to be added to records</td>
<td></td>
</tr>
<tr>
<td>List of document types that are allowed to be uploaded by citizens</td>
<td>jpg, gif, png, bmp, exe, com, dll, ocx, bat, reg, tmp, dat, ...</td>
</tr>
<tr>
<td>List of document types that are not allowed to be added to records</td>
<td></td>
</tr>
<tr>
<td>Maximum size for uploaded document in mb (Citizen)</td>
<td>2</td>
</tr>
</tbody>
</table>
Administration Tool

System Settings

[Introduced a new set of system settings for managing the **Identity Server**.

Used to identify, authenticate, and track Lucity user logins.

- Token based security
- Installed on the same server as Lucity Web and Lucity Mobile Server]
**Administration Tool**

**System Settings**

Added a new tab for managing the Identity Server.

![System Settings](image)

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Minutes before re-validating a token against Identity Server</td>
<td>15</td>
</tr>
<tr>
<td>Number of Minutes until a token expires for Mobile Apps</td>
<td>600</td>
</tr>
<tr>
<td>Number of Minutes until a token expires for the Internal Web App</td>
<td>600</td>
</tr>
<tr>
<td>Secret value internal web apps need to authenticate users</td>
<td>WoW</td>
</tr>
<tr>
<td>Secret value mobile apps need to authenticate users</td>
<td>WoW</td>
</tr>
<tr>
<td>The name of the certificate used for signing tokens on the internal Identity Server</td>
<td>LucityIdentityServer</td>
</tr>
<tr>
<td>The name of the certificate used for signing tokens on the mobile Identity Server</td>
<td>LucityIdentityServer</td>
</tr>
<tr>
<td>URL to the Identity Server for the Internal Web App</td>
<td><a href="http://lsavage.ddns.net/LucityIdentityServer">http://lsavage.ddns.net/LucityIdentityServer</a></td>
</tr>
<tr>
<td>URL to the Identity Server for the Mobile Apps</td>
<td><a href="http://lsavage.ddns.net/LucityIdentityServer">http://lsavage.ddns.net/LucityIdentityServer</a></td>
</tr>
<tr>
<td>Use SSL for Internal Web App Security</td>
<td>FALSE</td>
</tr>
<tr>
<td>Use SSL for Mobile App Security</td>
<td>FALSE</td>
</tr>
</tbody>
</table>
In the Mobile tab, added a setting, **Update the offline (Android or iOS) cache nightly**, that directs the mobile server to cache offline data for the **Lucity** Android and iOS v2.0 applications every night.
## Administration Tool

### System Settings

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Log device latitude and longitude</td>
<td>FALSE</td>
</tr>
<tr>
<td>Max Columns Returned</td>
<td>20</td>
</tr>
<tr>
<td>Maximum number of days to store device location history</td>
<td>30</td>
</tr>
<tr>
<td>Maximum records to return per request for mobile</td>
<td>100</td>
</tr>
<tr>
<td>Update the offline Android cache nightly</td>
<td>TRUE</td>
</tr>
<tr>
<td>Update the offline iOS cache nightly</td>
<td>FALSE</td>
</tr>
<tr>
<td>Url for the Lucity Mobile Server Virtual Directory (Externally accessible version)</td>
<td><a href="http://lsavage.ddns.net/LucityMobileServer">http://lsavage.ddns.net/LucityMobileServer</a></td>
</tr>
</tbody>
</table>
Administration Tool

System Settings

🎉 In the REST API tab, added a setting, **Automatically push invalid request addresses to the General Location field**, that allows third-party developers to instruct the **Citizen Portal** REST API to automatically move an invalid address to the **General Location** field (if empty).
<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allow RequestNumber and Email queries to the Citizen Portal REST API without pr...</td>
<td>FALSE</td>
</tr>
<tr>
<td>Automatically push invalid request addresses to the general location field</td>
<td>FALSE</td>
</tr>
<tr>
<td>Default Public REST WKID</td>
<td></td>
</tr>
<tr>
<td>Logon to use for anonymous REST API Access</td>
<td>RESTAPILogOn</td>
</tr>
<tr>
<td>Maximum records to return per request for rest api</td>
<td>50</td>
</tr>
<tr>
<td>Url for Citizen Portal REST API (optional, rarely required)</td>
<td><a href="http://lsavage.ddns.net/LucityWebRESTAPI">http://lsavage.ddns.net/LucityWebRESTAPI</a></td>
</tr>
<tr>
<td>Url for Internal REST API (required for internal web app)</td>
<td></td>
</tr>
<tr>
<td>Url for REST API (optional, rarely required)</td>
<td></td>
</tr>
<tr>
<td>Use an alternate coord system as the Default Coordinate System for Public REST ...</td>
<td>FALSE</td>
</tr>
<tr>
<td>Use extensionless URLs (only supported in IIS7+)</td>
<td>FALSE</td>
</tr>
<tr>
<td>Use ISO 8601 UTC DateTimes instead of ISO 8601 Local DateTimes For Citizen ...</td>
<td>FALSE</td>
</tr>
<tr>
<td>Use ISO 8601 UTC DateTimes instead of ISO 8601 local DateTimes For Internal ...</td>
<td>FALSE</td>
</tr>
</tbody>
</table>
Reports

- Removed **Reports** in Lucity Administration because it is now managed in **Lucity Web**
# Administration Tool

## Reports For Sewer Pipes

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Report Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversion and High Point Manholes Report</td>
<td>Prints all manholes that have more than one outgoing Pipe by pipe summary of the data with elevations.</td>
</tr>
<tr>
<td>Elevation Report</td>
<td>Pipe length summary totals by pipe diameter and Flow Prints all data stored in Pipe Inventory Module.</td>
</tr>
<tr>
<td>Network-Length of Sewer by Diameter Ranges</td>
<td>Prints images and data for Pipe Inventory. All data in the Pipe Inventory Module including Connections</td>
</tr>
<tr>
<td>Pipe Detail Report</td>
<td>Pipe by pipe summary of the data with elevations and 1 Displays Date, Time, Direction, Crew, Purpose, and Taps</td>
</tr>
<tr>
<td>Pipe Inventory Image Report</td>
<td>Provides a list of Pipes that have not had Television Inspections All the data stored in the module.</td>
</tr>
<tr>
<td>Pipe Inventory Master with Connections</td>
<td>One line summary of Pipes that have not had Air Tests</td>
</tr>
<tr>
<td>Pipe Inventory with Observation Holes</td>
<td>One line summary of Pipes that have not had Mandrel Tests</td>
</tr>
<tr>
<td>Pipe TV History Report</td>
<td>One line summary for Sewer Pipe Inventory.</td>
</tr>
<tr>
<td>Pipe Without TV Inspections</td>
<td></td>
</tr>
<tr>
<td>Pipes Master Report</td>
<td></td>
</tr>
<tr>
<td>Pipes Without Air Tests</td>
<td></td>
</tr>
<tr>
<td>Pipes Without Mandrel Tests</td>
<td></td>
</tr>
<tr>
<td>Sewer Pipe Summary Report</td>
<td></td>
</tr>
</tbody>
</table>
Forms

Modified the **Editing Forms** feature so that users remain logged in and can see any changes made to the **Form** almost immediately after saving. The feature no longer kicks users out of **Lucity Web.**
Forms

Added reports that display all of the Views/Grids/Forms that a user has created. These reports can be run from any Lucity Web and Desktop module.
Administration Tool

1. Dialog
   - Reports:
     - Pipe Detail Report
     - Pipe Detail Report
     - Pipe Summary Report
     - Water Pipe inventory - Length of Pipe by Diameter
   - Report Filter:
     - This Record Only
     - Current Filter
     - All Records
   - View Report
   - Print Report
   - Export Report

2. Add Report
   - Report File Path: "C:\Lucitysvr\Reports\General\ViewGridForms.rpt"
   - Report Name: View/Grid/Forms
   - Description: (255 characters Max)
   - Add from the General folder 'ViewGridForms.rpt'
### Administration Tool

#### Reports For Sewer Pipes

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Report Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diversion and High Point Manholes Report</td>
<td>Prints all manholes that have more than one outgoing pipe.</td>
</tr>
<tr>
<td>Elevation Report</td>
<td>Pipe by pipe summary of the data with elevations.</td>
</tr>
<tr>
<td>Network-Length of Sewer by Diameter Ranges</td>
<td>Pipe length summary totals by pipe diameter and Flow.</td>
</tr>
<tr>
<td>Pipe Detail Report</td>
<td>Prints all data stored in Pipe Inventory Module.</td>
</tr>
<tr>
<td>Pipe Inventory Image Report</td>
<td>Prints images and data for Pipe Inventory.</td>
</tr>
<tr>
<td>Pipe Inventory Master with Connections</td>
<td>All data in the Pipe Inventory Module including Connections.</td>
</tr>
<tr>
<td>Pipe Inventory with Observation Holes</td>
<td>Pipe by pipe summary of the data with elevations and Total Flow.</td>
</tr>
<tr>
<td>Pipe TV History Report</td>
<td>Displays Date, Time, Direction, Crew, Purpose, and Tag.</td>
</tr>
<tr>
<td>Pipe Without TV Inspections</td>
<td>Provides a list of Pipes that have not had Television Inspection.</td>
</tr>
<tr>
<td>Pipes Master Report</td>
<td>All the data stored in the module.</td>
</tr>
<tr>
<td>Pipes Without Air Tests</td>
<td>One line summary of Pipes that have not had Air Tests.</td>
</tr>
<tr>
<td>Pipes Without Mandrel Tests</td>
<td>One line summary of Pipes that have not had Mandrel Tests.</td>
</tr>
<tr>
<td>Sewer Pipe Summary Report</td>
<td>One line summary for Sewer Pipe Inventory.</td>
</tr>
</tbody>
</table>

**Buttons:**
- Add Quick Report
- Add
- Edit
- Update
- Download
- Delete
- Run
- Close
### Administration Tool

**Reports For Sewer Pipes**

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Report Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Network-Length of Sewer by Diameter Ranges</td>
<td>Pipe length summary totals by pipe diameter and Flow</td>
</tr>
<tr>
<td>Pipe Detail Report</td>
<td>Prints all data stored in Pipe Inventory Module.</td>
</tr>
<tr>
<td>Pipe Inventory Image Report</td>
<td>Prints images and data for Pipe Inventory.</td>
</tr>
<tr>
<td>Pipe Inventory Master with Connections</td>
<td>All data in the Pipe Inventory Module including Connections.</td>
</tr>
<tr>
<td>Pipe Inventory with Observation Holes</td>
<td>Pipe by pipe summary of the data with elevations and Trench</td>
</tr>
<tr>
<td>Pipe TV History Report</td>
<td>Displays Date, Time, Direction, Crew, Purpose, and Tangents.</td>
</tr>
<tr>
<td>Pipe Without TV Inspections</td>
<td>Provides a list of Pipes that have not had Television Inspection.</td>
</tr>
<tr>
<td>Pipes Master Report</td>
<td>All the data stored in the module.</td>
</tr>
<tr>
<td>Pipes Without Air Tests</td>
<td>One line summary of Pipes that have not had Air Tests</td>
</tr>
<tr>
<td>Pipes Without Mandrel Tests</td>
<td>One line summary of Pipes that have not had Mandrel Tests</td>
</tr>
<tr>
<td>Sewer Pipe Summary Report</td>
<td>One line summary for Sewer Pipe Inventory.</td>
</tr>
<tr>
<td>Sewer Pipes Without Selected Task</td>
<td>List of Pipes that have not had the selected WO Task</td>
</tr>
<tr>
<td><strong>View/Grid/Forms</strong></td>
<td>Reports what View/Grid/Forms that a user has created</td>
</tr>
</tbody>
</table>

**Actions**

- **Add Quick Report**
- **Add**
- **Edit**
- **Update**
- **Download**
- **Delete**

**Buttons**

- **Close**
- **Run Report**
- **Run**
**Lucity Web Views with Associated Forms and Grids**

<table>
<thead>
<tr>
<th>View</th>
<th>Module</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident Data Management</td>
<td>Street Accident Data Management</td>
</tr>
<tr>
<td>Account Numbers</td>
<td>Account Numbers</td>
</tr>
<tr>
<td>Activity Library</td>
<td>Activity Library</td>
</tr>
<tr>
<td>Auxiliary Equipment</td>
<td>Street Auxiliary Equipment</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Forms</th>
<th>Grid Forms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accident Data Management</td>
<td>Accident Data Management</td>
</tr>
<tr>
<td>Account Numbers Form</td>
<td>Account Numbers Form</td>
</tr>
<tr>
<td>Activity Library Form</td>
<td>Activity Library Form</td>
</tr>
<tr>
<td>Activity Library Details Form</td>
<td>Activity Library Details Form</td>
</tr>
<tr>
<td>Auxiliary Equipment Form</td>
<td>Auxiliary Equipment Form</td>
</tr>
</tbody>
</table>

3/29/2016
10:49 am
Street Renaming Tool

This new tool lets administrators update a **Street Name System-Wide** to correct a misspelling or to change it to a completely new name.

The tool is installed with **Lucity Desktop** and is found in the `\bin` folder.

[Video](https://www.youtube.com/watch?v=dQxZqB3fL98)
Street Renaming Tool

NOTE: This tool only updates streets in the Lucity database, NOT the GIS data.
Desktop
Module Enhancements

Create PM/Template Tool

Added the ability to create a new Template based on an existing Template.
Need to have an existing PM Template and create PM Template from any asset.
GIS

- ArcGIS for Desktop 10.4 supported.
- ArcGIS for Server 10.4 **not** supported
- ArcGIS 10.2.2 - 10.3.1 **fully** supported
In ArcMap, Modified the **TV Observation Tool** to enable users to filter results by **Severity** rating.
GIS

- In ArcMap, configured the **Lucity Water Tools** (split, merge, renumber) to work with raw and recycled water features.
In ArcMap, Enhanced the **Show in Map** tool to display **Water Meter Devices**, **AMRs**, **Construction** record assets, **Water Flushing Route** assets, and **Work Permit** assets.
In ArcMap, Configured the **Editor Extension** to:

- Warn users if the **Common ID** they entered is a duplicate
- Permit **Default Values** mapped in the **Geodatabase Configuration** tool to be synced into **Lucity** when users add or edit a record
In ArcCatalog, Added an **Integration Summary Report** that displays information about the **Geodatabase Configuration**. This report can be run against the entire configuration or a single feature class.
In ArcCatalog, Added tools for adding or removing **Attribute Indexes**. Adding indexes for the **Common ID** (Facility ID) and **Auto ID** (Lucity ID) fields makes Lucity GIS tools run faster.
In ArcCatalog Domain Tools

- Added an **Update Work Maintenance Zone Domain** tool to create and assign domains for the **Work Maintenance Zone** fields. This tool can be run against the entire configuration.
In ArcCatalog Domain Tools

- Added an **Update Work Alternate Zone Domain** tool to create and assign domains for the **Work Alternate Zone** fields. This tool can be run against the entire configuration.
GIS

- In ArcCatalog Domain Tools
  - Added a **Show Current Values and Record Counts** option to the **Domain Configuration Tool** that is useful when managing domains. The option displays the number of records in GIS and **Lucity** using the various codes.
GIS

In ArcCatalog Scheduled Tasks

- Modified the module to support the Reverse Geocode spatial relationship.
- Updated the Tasks’ import logic to account for the new GIS Default values required for the GIS-to-Lucity synchronization process.
GIS

- Lucity GIS Viewer
  - Added measurement tools.
GIS

- New **GIS Integrated** Modules
  - Water Meter Device and AMR
    - Water Distribution
    - Recycled Water
    - Raw Water
  - Plant Process
Import and Update
Import and Update

Launching the Import and Update requires users to have a new Admin > Import and Update > Run permission.

Video: https://www.youtube.com/watch?v=FqgJUmTo77c
Install
Install

- Lucity Desktop
  - The Desktop installation now includes the Lucity Security and Client Maintenance programs. Previously, these programs were installed only with a complete install. This change does not pose a security risk, because each of these tools still require administrator credentials.
  
  ✓ The GIS Viewer continues to be available only through the Custom install.
Install

Lucity Server

- In Client Maintenance, Modified the interface to include only one database tab per client to reflect the **Unified Database** as well as removed the **Documents** tab because **Lucity** no longer supports relative document pathing.
Install

- Lucity Web
  - Configured the system to automatically launch the **Lucity Web REST API** and **Lucity Identity Server** installations.
REST API
REST API

- Status Codes
  - When a user is not authorized to perform an action due to permissions, the REST API now returns a **403 Forbidden** code. Previously, the system returned a **401 Unauthorized** code. **401** is now used only to indicate a failure to log into **Lucity** or an expired login session.
Security
Security

- User Permissions
  - **Lucity** no longer manages security using individual user permissions. Individual permissions were removed to simplify the **Security** program and improve overall performance of the product. Instead, users should obtain their permissions from the **Groups** in which they are members.
Services
Services

- Lucity Scheduler Service
  - Now runs all Lucity background processes including nightly tasks and PM generation.
  - No longer tracks nightly PM information in the Lucity.dbo.SYSTEMLOG table
  - All of the scheduled tasks are being updated to use Lucity’s BackgroundTaskUser
In version 2016, a single user can open multiple instances of Lucity Web, allowing him or her to display it on multiple monitors. Nevertheless, it is a violation of the Lucity Software License Agreement for users to share user logons.
Web

- Dashboards
  - Modified the Manage Shared Tabs tool to display each user’s Default Rules Group.
<table>
<thead>
<tr>
<th>User Name</th>
<th>First Name</th>
<th>Last Name</th>
<th>Department</th>
<th>Group Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>vrose</td>
<td>Whitney</td>
<td>Rose</td>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>tremper</td>
<td>Vito</td>
<td>Tremper</td>
<td>Facilities</td>
<td></td>
</tr>
<tr>
<td>higbee</td>
<td>Vernell</td>
<td>Higbee</td>
<td>Wastewater Plant</td>
<td></td>
</tr>
<tr>
<td>hames</td>
<td>Vernetta</td>
<td>Hames</td>
<td>Water Distribution</td>
<td></td>
</tr>
<tr>
<td>guffey</td>
<td>Vanda</td>
<td>Guffey</td>
<td>Storm</td>
<td></td>
</tr>
<tr>
<td>goucher</td>
<td>Vera</td>
<td>Goucher</td>
<td>Water Distribution</td>
<td></td>
</tr>
<tr>
<td>gibson</td>
<td>Victoria</td>
<td>Gibson</td>
<td>Administrator</td>
<td></td>
</tr>
<tr>
<td>cardinal</td>
<td>Vince</td>
<td>Cardinale</td>
<td>Water Distribution</td>
<td></td>
</tr>
<tr>
<td>alessi</td>
<td>Venetta</td>
<td>Alessi</td>
<td>Fleet</td>
<td></td>
</tr>
<tr>
<td>wheeler</td>
<td>Trey</td>
<td>Wheeler</td>
<td>Administrator</td>
<td></td>
</tr>
<tr>
<td>welsh</td>
<td>Tori</td>
<td>Welsh</td>
<td>Solid Waste</td>
<td></td>
</tr>
<tr>
<td>tonn</td>
<td>Thomas</td>
<td>Tonn</td>
<td>Sewer Collections</td>
<td></td>
</tr>
</tbody>
</table>
Dashboards

- Eliminated the **Dashboard reports** distinction, because all reports can now be displayed on the **Dashboard**.

- Added a **Map Plugin** that can display a **Lucity WebMap** on the **Dashboard**.
  - Frames can be set to **Show in Plugin Map**. When frames are toggled in this manner, **Data Drills**, **Quick Lookups**, and **Asset Hierarchy Tree** information will be displayed within the **Map Plugin** found on the same **Dashboard tab**, instead of opening in a module view.

Video: [https://www.youtube.com/watch?v=T_iR7QMHCeE](https://www.youtube.com/watch?v=T_iR7QMHCeE)
User Controls

- Enhanced the **Reset Password** function to display related password requirements.

Video: [https://www.youtube.com/watch?v=B56i1C0HPTU](https://www.youtube.com/watch?v=B56i1C0HPTU)
Web

Views/Grids/Forms

In Documents, Rewrote the tool using HTML
Web

Views/Grids/Forms

- In Documents, added a **Carry Over to Work Order** option that links the document to any **Work Order** created from the related asset.
- Added a **Always Open Document Directly** option that prevents the document server from opening the document. Instead, the system displays a path to the document that the user can copy. This option is useful for large documents that would slow down document server.

Video: [https://www.youtube.com/watch?v=jk8G3T0DXVw](https://www.youtube.com/watch?v=jk8G3T0DXVw)
Video End User: [https://www.youtube.com/watch?v=v9ll5nTVW5s](https://www.youtube.com/watch?v=v9ll5nTVW5s)
Video Admin: [https://www.youtube.com/watch?v=T1rmvzy4XIM](https://www.youtube.com/watch?v=T1rmvzy4XIM)
Web

Upload Document

File:
C:\Users\savage\Pictures\imagery.png

Not Allowed: exe, com, dll, ocx, bat, reg, tmp, dat, scr, bak, acl, acm, cpl, ax

Description:
Imagery from near Asset

☑️ Carry Over to Work Order
☑️ Always Open Document Directly

Cancel
Upload

Open File Directly

This file has been configured to be opened directly or is unable to be opened through the Document Server. This may not work on all browsers or machines. You can use the button below to attempt to open the file.

Copy Path
File Path: C:\LucityDocs\Water\WaterPipeInventory\1\imagery.png

Close
Open File
Web

- **Views/Grids/Forms**
  - In Documents, Separated **Documents** and **Links** onto different tabs within the tool.
Web

Views/Grids/Forms

- In Documents, as mentioned, this tool is now HTML.
  - The Lucity WebMap still uses Silverlight so viewing files are dependent on the default application assigned to the operating system. Please ensure that the file you are viewing on the workstation has a default application setup to view the file when using WebMap document controls.
Web

Views/Grids/Forms

- Added an **External Documents Tool** to enable agencies to integrate **Lucity** with a third-party document-management system.
  - Using this tool, an administrator can set a URL to pass values from a record in **Lucity** to an external document system.
  - The external document system can then pass back links to matching documents. As mentioned, this tool is now HTML.

Video: [https://www.youtube.com/watch?v=D8bqYRLg1gc&index=10&list=PL6gNKzCUXa1iS5FzYTkujALQwgmZDYZf-n](https://www.youtube.com/watch?v=D8bqYRLg1gc&index=10&list=PL6gNKzCUXa1iS5FzYTkujALQwgmZDYZf-n)
Web

Filters

- Rewrote the tool using HTML.
- Added the ability to use reserved words in the **Filter Builder**.
- Allows editing of most existing filters using the **Filter Builder**.

Video: [https://www.youtube.com/watch?v=WmpSQJccyC8](https://www.youtube.com/watch?v=WmpSQJccyC8)
Web

- Reports
  - Rewrote the tool using HTML.
  - Added the ability to manage Report Groups in Lucity Web.
  - Added the ability to download a copy of a report’s .rpt file.
  - Simplified the process of adding a Quick Report.
### Reports For Water Pipes

<table>
<thead>
<tr>
<th>Report Name</th>
<th>Report Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pipe Detail Report</td>
<td>Report containing all pipe details</td>
</tr>
<tr>
<td>Pipe Detail Report</td>
<td>Report shows all data for Water Pipes including the details</td>
</tr>
<tr>
<td>Pipe Summary Report</td>
<td>Summary of pipes sorted by pipe number</td>
</tr>
<tr>
<td>Water Pipe inventory - Length of Pipe by Diameter</td>
<td>Length of pipe for diameter ranges in inches by present</td>
</tr>
</tbody>
</table>

- **Add Quick Report**
- **Add**
- **Edit**
- **Update**
- **Download**
- **Delete**

**Run**

**Close**
Web

- Reports

- Changed the way Lucity refers to report views:
  - **Basic View** generates the first x number of pages of the report as basic **PDF**.
  - **Advanced View** generates the first page of the report and displays it on the **Dashboard**. Users can page through the report one page at a time, regardless of the number of pages.
    - Enables users to view parameters and export the report.
Web

Basic View

<table>
<thead>
<tr>
<th>Equipment Listing Report By Equipment ID</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equipment ID</strong></td>
</tr>
<tr>
<td>01</td>
</tr>
<tr>
<td>601</td>
</tr>
<tr>
<td>701</td>
</tr>
<tr>
<td>801</td>
</tr>
</tbody>
</table>

**Basic Reports View**

- **Basic View**
  - First 20 Pages
- **Linked Report**
  - A link that opens the first 20 pages in another tab.
- **Advanced View**
  - Display one page at a time, but not limited to the first 20 pages.
## Open Monthly Work Order Status Report by Category

<table>
<thead>
<tr>
<th>Category:</th>
<th>A. Originally Closed</th>
<th>B. Remaining</th>
<th>C. Opened</th>
<th>A. Opened Prior to Current Month</th>
<th>B. Opened in Current Month</th>
<th>Total Opened</th>
</tr>
</thead>
<tbody>
<tr>
<td>OB1000 HVAC</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OB2000 Plumbing</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>OB2500 Custodial</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OB3000 Electrical</td>
<td>3</td>
<td>0</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>OB6000 Building</td>
<td>5</td>
<td>0</td>
<td>5</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>OB8500 Grounds Maintenance</td>
<td>4</td>
<td>0</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>OF Fleet Maintenance</td>
<td>20</td>
<td>0</td>
<td>20</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>P60 Roads</td>
<td>14</td>
<td>0</td>
<td>14</td>
<td>0</td>
<td>0</td>
<td>14</td>
</tr>
<tr>
<td>P80 Sidewalk</td>
<td>6</td>
<td>0</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>PB1 Bridge Maintenance</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>PLNTP Plant Process</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>PMCB Catch Basin</td>
<td>9</td>
<td>0</td>
<td>9</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>PMMG1 Storm WQ Commercial</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>PMMG2 Storm WQ Construction</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>
Enhanced the **Trace** tool to enable users to select **Sewer FOG** and **IPT Facilities** during a **Sewer Pipe** trace and to select **Storm BMP Assets** during a **Storm Conduit** trace.
Web

- **WebMap**
  - Show in WebMap
    - Integrated the tool with *Water Flushing* records
    - Integrated the tool with *Water Meter Devices* and *AMR Devices*
New Modules for Lucity Web/Mobile
New Modules

- **Equipment**
  - Plant Process Dependents

- **Water**
  - Direct Hydrant Flushing

Video: [https://www.youtube.com/watch?v=mkc7ekAFeqQ](https://www.youtube.com/watch?v=mkc7ekAFeqQ)
New Modules

- Work
  - Activity Library
  - Activity Library Details
  - Daily Inspection Bacti Tests
  - Daily Inspection Construction Activities
  - Daily Inspection Contractors
  - Daily Inspection Easements
  - Daily Inspection Equipment
  - Daily Inspection Staff
  - Daily Inspections
New Modules

- Work-Continued
  - Master Project Activities
  - Master Project Activity History
  - Master Project Management
  - PO Details Linked to Projects
  - Project Activities
  - Project Activity History
  - Project Budgets or Revenues
  - Project Contract Approval Library
  - Project Contract Approval Library Details
New Modules

- Work-Continued
  - Project Contract Details
  - Project Contract Estimate Approvers
  - Project Contract Estimate Details
  - Project Contract Estimates
  - Project Contract Link to Projects
  - Project Contracts
  - Project Cost Centers
  - Project Expenditures
  - Project Grants
New Modules

- Work-Continued
  - Project Invoice Details
  - Project Invoice Link to Purchase Orders
  - Project Invoice Payment Details
  - Project Invoice Payments
  - Project Invoices
  - Project Management
  - Project Purchase Order Change Orders
  - Project Purchase Order Details
  - Project Purchase Orders
New Modules

- Work-Continued
  - Project Subcontractors
  - Project Tasks
  - Project Tasks Sub-Tasks
  - Work Task Setup Maintenance Zone Supervisor