

# 2015 NYS Geospatial Applications Awards Competition Entry Form

**Sponsoring Organization:** Erie County Department of Environment & Planning, Division of Sewerage Management

**Stakeholder/Participant List (by Organization):**

Steven Russell Jr, GISP/Erie County  
Jim Schoenberg and Leon Zhou/Dig Smart  
Adam Hagee and Peter King/iWater (infraMAP)

**Title:** Erie County Division of Sewerage Management Implements Dig Smart and infraMAP to help automate daily UFPO workflow.

**Abstract:**

Erie County Division of Sewerage Management handles approximately 20,000 Underground Facilities Protection Organization (UFPO) tickets per year from Dig Safely New York (DSNY). Through the use of the software programs Dig Smart and infraMAP, we have automated the process of keeping track of and processing all of our UFPO tickets. Dig Smart is a UFPO ticket management software program that resides inside ESRI's ArcMap. InfraMAP is a mobile Windows based utilities management software application that currently resides on both Panasonic Toughbooks and Microsoft Surface Pro 3's. The DSM's GIS information is loaded into infraMAP. Adding these software programs to our UFPO processing workflow has drastically increased our efficiency. We have not only saved thousands of annual man hours, but have achieved a 99.99% ticket processing efficiency.

**Statement of the Problem:**

Erie County's Division of Sewerage Management (DSM) wanted to automate our daily UFPO workflow. In years past, processing UFPO's was a very time consuming task. It involved at least 11 people handling daily UFPO tickets. UFPO Tickets were emailed by Dig Safely New York to a central processing location, where the Dig Smart software would parse the ticket information, geocode it, create a PDF map of the ticket against our existing GIS information and then email it out to one of the DSM's three (3) sewer regions. The ticket would contain a map of the geocoded ticket area, with DSM utilities show on the map. Once the ticket was received, it was printed out and given to field staff. The field staff would bring the paper ticket out into the field, and process it. Then they would write the Automated Positive Response (APR) code and any details about the job on the paper ticket. The next step was to hand that ticket to a sewer region secretary who would create a daily UFPO Excel spreadsheet and email that back to our UFPO operator. That person would print out the spreadsheet, and then close out each ticket inside Dig Smart individually by calling or sending a Fax or Email to the ticket generator. Informing the ticket generator has recently changed, and now Erie County only notifies Dig Safely New York the APR code of each ticket.

### **Response to the Problem:**

The DSM implemented the latest version of Dig Smart and installed infraMAP on a combination of Panasonic Toughbooks and Microsoft Surface Pro 3's. Through the use of Verizon MiFi to achieve an internet connection in the field and a County VPN, infraMAP syncs tickets with Dig Smart from anywhere in Erie County. InfraMAP allows field staff to fill out ticket information through an electronic "form" on a Toughbook or Surface Pro 3 with each field in a drop down box that ensures ticket accuracy. Ticket information is stored in a 2008 SQL Server database.

### **Results:**

The results have been extremely positive. The program has reduced the amount of people involved with processing daily UFPO's from 11 to 7. Lost tickets no longer occur. Every ticket that comes in is tracked and processed. By automating workflows, and making sure every ticket is accounted for, the DSM has achieved a 99.99% successful processing UFPO rate. This has saved the DSM money in fines from DSNY because DSNY charges \$2/ticket for every ticket not processed before its start time.

### **Return on Investment/Cost-Benefit Analysis:**

Reduced staff involved to process daily UFPO's from:

1 UFPO Manager

1 full time UFPO operator processing regular and emergency tickets

1 full time person to close out the daily UFPO tickets

3 clerical staff members to print out daily UFPO tickets and process them

3 full time field staff that process UFPO's in the field

2 operators (one per 2nd and 3rd shift) who monitor and process regular and emergency UFPO tickets

11 total people involved in daily operations. 6+ are full time

To

1 UFPO manager

1 half time UFPO operator processing UFPO tickets

3 full time field staff that process UFPO's daily in the field

2 operators (one per 2nd and 3rd shift) who monitor Dig Smart for Emergency tickets once per hour.

7 total people involved in daily operations, 3.5 are full time

**Key Participants: (Name, Organization, Title)**

Steven Russell Jr., GISP, Erie County, Sr. IT Engineer  
Paul Hummell, Erie County, Senior Clerk (UFPO Operator)

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