

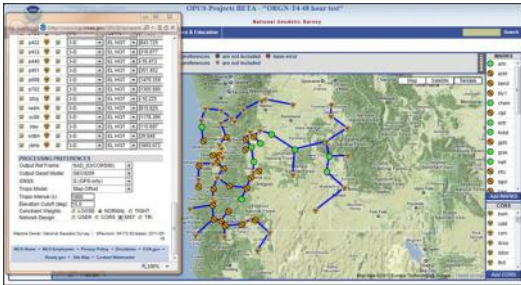
## Course Summary

### OPUS Projects Manager Training

#### WHAT IS OPUS Projects?

OPUS Projects is a web-based GPS processing and network adjustment package with access to simple visualization, management, and processing tools for multiple marks and multiple occupations. OPUS Projects is a natural extension of OPUS that allows engineers, surveyors, and other users to position campaign-style GPS observations (geodetic networks) with greater accuracy by combining them through multi-baseline processing and least-squares adjustments. Some of its advantages include:

- Data uploading and harvesting through OPUS
- Web-based data storage and access
- Processing and network adjustment using the NGS PAGES software suite.
- Data and solution visualization aids
- Coordinate results tied to the NSRS or to local constraints



OPUS Projects is a four step process with an optional fifth step:

- Create the project
- Upload data files and mark descriptions
- Process sessions
- Adjust the network

*Publish to the NGS Integrated Database or IDB (Note that this step requires using the NGS Adjust program and following the remainder of the normal bluebooking process)*

## Learning Objectives

By attending this workshop, you will gain enough information to successfully use OPUS Projects for your own geodetic network projects. The training is two days and you must attend both days to become a project manager for OPUS Projects. Although not required, familiarity with typical GNSS surveying practices and NGS' OPUS is helpful. Also helpful is the ability to access your email during training because OPUS Projects uses email as one means to communicate with you.

### \* Workshop Requirements

In order to realize the potential of the information provided in this workshop, registrants must be able to plan for the workshop in advance. The following requirements of this workshop must be met:

1. Bring your own laptop computer with a Windows based operating system, 32 Bit or 64 Bit.
2. Your laptop should have WIFI capability, the workshop room will have free WIFI access.

### Costs, Refunds, Cancellation Policies

Registration fee for the workshop: \$300 for CALS members, \$350 non-members. Members of other state surveying societies are welcome. Full refunds for cancellations made 48 hours prior to the workshop.

Connecticut Association  
of Land Surveyors  
Presents:



## OPUS NETWORKS GNSS Post-Processing Training



**Dan Martin, NOAA-NGS**

**Thurs. Oct 10 & Fri. Oct 11, 2019  
8:30am - 4:30pm**

**CCSU Institute for Technology  
and Business (ITBD)  
185 Main Street  
New Britain, CT**

**Professional Workshop PDH/CEU credit  
CT, VT, RI, ME 11.5 PDH, NH 2.9 CEU  
NY Live Credits 11.5 Hours, 1.15 CEU**

**For more information:  
jjdoody@snet.net 203-933-3850**

## Presenter: Dan Martin, NOAA-NGS

Dan Martin is the Northeast Regional Geodetic Advisor for National Geodetic Surveys, NOAA. As the Regional Advisor, he instructs local surveyors, state and municipal agencies, and the geospatial community at large, on how to use and preserve the National Spatial Reference System. Dan also provides liaison between the National Geodetic Survey and the States of ME, NH, VT, MA, CT, RI, NY, and NJ, as well as other federal agencies. He worked in the Route Survey and Geodetic Survey sections of the Vermont Agency of Transportation from 1988 through 2003, and held the position of Geodetic Program Supervisor for the Agency from 1999 through 2003. In 2003 Dan began his career with the National Geodetic Survey as the Vermont State Geodetic Advisor. Dan is a Past President and Fellow Member of the American Association for Geodetic Surveying (AAGS), he is also a member of the Vermont Society of Land Surveyors and the New Hampshire Land Surveyors Association.

Professional Workshop PDH/CEU credit  
CT, VT, RI, ME 11.5 PDH, NH 2.9 CEU  
NY Live Credits 11.5 Hours, 1.15 CEU

## Thursday October 10, 2019

- 8:00 - 8:30am Registration, Coffee+
- 8:30 – 10:15 am  
Data uploading and harvesting through OPUS  
Web-based data storage and access
- 10:15 -10:30am Coffee Break
- 10:30 –Noon  
Processing and network adjustment using the  
NGS PAGES software suite.
- Noon - 12:45pm Lunch provided
- 12:45 - 2:15pm  
Data and solution visualization aids
- 2:15 - 2:30pm Break
- 2:30 - 4:30 pm:  
Coordinate results tied to the NSRS or to  
local constraints

## Friday October 11, 2019

- 8:00 - 8:30am Registration, Coffee+
- 8:30 – 10:15 am  
Create the project  
Upload data files and mark descriptions
- 10:15 -10:30am Coffee Break
- 10:30 –Noon  
Process sessions  
Adjust the network
- Noon - 12:45pm Lunch provided
- 12:45 - 2:15pm  
Questions / Answers

### REGISTRATION: OPUS NETWORK TRAINING WORKSHOP 10/10 & 11/2019

Name: \_\_\_\_\_ Company: \_\_\_\_\_ Phone: \_\_\_\_\_  
Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_  
Email: \_\_\_\_\_  
Credit Card Num: \_\_\_\_\_ Expiration date: \_\_\_\_\_  
Signature: \_\_\_\_\_

Registration Fee \$300 for CALS members, \$350 non-members. \* Includes coffee, lunch, parking & handouts.  
\*Registration fee for all members of New England & NY Professional Surveying Societies

**Make Check Payable to : CALS and send to CALS, 78 Beaver Road, Suite 2-J, Wethersfield, CT 06109**  
Phone (860) 563-1990 Fax (860) 529-9700 email [kathy@ctsurveyors.org](mailto:kathy@ctsurveyors.org)

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