



Professional Land Surveyors of Ohio

2021 Virtual Annual Conference

February 18, 19, 25 & 26, 2021

Sessions and Speakers

(as of 2/3/2021)

Thursday, February 18

8:30 – 10:30 am Concurrent Sessions

Working in the Modernized NSRS, plus an Explanation/Demo of OPUS Projects

The first half of this session will start with explaining the new point types that will exist in the future NGS Data Delivery System that will replace the beloved Datasheets. We will cover what each type is in detail, explain why they are necessary, how they will be attained (and by whom), the timing/schedule of their release, along with resources to read more on the topic. The second half will focus on the mechanism that will be used to generate these points, OPUS. Jeff will start with an overview of the existing types of OPUS (Rapid Static, Static, & Projects) with a focus on OPUS Projects and its benefits. We will wrap up with a walk-through of OPUS Projects, including the new feature that is coming soon, RTK and RTN (aka VRS) vector integration!

Jeff Jalbrzikowski, P.S., GISP, CFS, is the Appalachian Regional Advisor with the National Geodetic Survey (NGS). He is a licensed Professional Surveyor in multiple states, is a certified GIS Professional, and a Certified Floodplain Surveyor. Jeff has spent his career performing a variety of field and office survey functions, including boundary retracement; terrestrial lidar scanning; single- and multi-beam hydrographic surveys; conducting geodetic control surveys around the globe; and local/legacy datum resolution. His role as Regional Advisor is to assist the public in utilizing the National Spatial Reference System (NSRS), and any other products and services that NGS provides.

Civil 3D 2021 Field to Finish

Field to Finish is a general term used to describe the surveying process that determines the connectivity and symbology of points surveyed in the field that match the feature name and field code that is defined in an Autodesk Civil 3D linework code set and the description keys that are defined for the current drawing. This class will focus on Autodesk Civil 3D 2021 Survey functionality and the IMAGINiT Jumpstart Template based upon the NCS CAD Standards. This session will also demonstrate the Traverse Editor to create 2D traverses by entering data or by selecting a polyline from the drawing. After entering the data, one can send the traverse data to the Traverse Adjustment dialog box to apply an adjustment method. The Traverse Editor has the ability to specify whether you want to create points, lines, or points and lines in the drawing as you enter data. These objects remain in the drawing after you close the Traverse Editor.

Scott Kraner has been in the Autodesk Partner Channel since 2017 and has over 30 years of industry experience utilizing a variety of Autodesk products focusing on transportation, drainage, and infrastructure. Scott is a US Military Academy graduate and his experience includes construction inspection, traffic engineering operations, water system oversight and Safe Drinking Water Act compliance enforcement, and development and management of specific public programs, such as ADA compliance, roadway flooding elimination, and assistance fund coordination. Scott is licensed as a Professional Engineer in Ohio.

11:00 am – 1:00 pm Concurrent Sessions

***Working in the Modernized NSRS, plus an Explanation/Demo of OPUS Projects
(repeat of 8:30 am session)***

Civil 3D 2021 Field to Finish (repeat of 8:30 am session)

Friday, February 19

8:30 – 10:30 am Concurrent Sessions

Samuel Stinson Gannett - Part I

Based upon the multi-year series of articles in the American Surveyor Magazine titled the Unsung Hero, this session will focus on the surveys across America by the State Line Boundary Retracement Specialist himself – Samuel Stinson Gannett. We will study his life and surveys spanning his impressive 55-year career with the United States Geological Survey.

Joseph D. Fenicle, PS is a Professor at the University of Akron for their award-winning Surveying/Mapping Program in Akron, Ohio. Immediately prior to that Fenicle was the Chief Surveyor with the Office of the Fulton County Engineer in Wauseon, Ohio from 2005 to 2020. Fenicle worked with J.C. Andrus & Associates in Toledo from 1996 to 2005 and specialized in boundary retracement and remonumentation in Ohio & Michigan. In 2003, he took a sabbatical to New Hampshire and represented a large multidisciplinary firm surveying throughout multiple New England states. Fenicle was also an adjunct faculty member with Owens Community College teaching various surveying courses between 2002 and 2009 and at the University of Toledo in 2019. Fenicle was also a long-time member of the remonumentation peer group for Lenawee and Monroe Counties Michigan. He continues to write, research, and speak on various surveying related topics and also runs a business specializing in continuing professional development for land surveyors across the nation. Fenicle received his AAS in GIS/GPS from Hocking Technical College and a BS in Surveying/Mapping from the University of Akron and is currently pursuing his PSM from the University of Maine. He became licensed in Ohio in 2002 and in Michigan in 2004. He obtained his FAA license in 2019.

Session State Board Surveying Task Force Outcomes

John F. Greenhalge is the Executive Director of the Ohio State Board of Registration for Professional Engineers and Surveyors. John has been with the Board since 1998, previously serving as the Board's Enforcement Supervisor and as the Assistant Executive Director. Prior to joining the Board John began his career as a loss prevention and human resources investigator for Sears Roebuck & Co and then as an investigator for the Franklin County Prosecuting Attorney's office. John has a Bachelor of Science degree in Business Administration and a Master of Business Administration degree from Ashland University. John has served on numerous national committees for the National Council of Examiners for Engineering and Surveying (NCEES) including the Committee on Law Enforcement, the NCEES Leadership Task Force and the Member Board Administrators Committee. John is also a recipient of the NCEES Distinguished Service Award and the 2019 Meritorious Service Award for outstanding service to the Central Zone, NCEES and the engineering and surveying profession.

11:00 am – 1:00 pm Concurrent Sessions

Samuel Stinson Gannett - Part II

State Board Surveying Task Force Outcomes (repeat of 8:30 am session)

Thursday, February 25

8:30 – 10:30 am Concurrent Sessions

Know When to Hold 'em and Other Procedural Pitfalls – Part I

At the core of our profession is the boundary monument, and most boundary retracement decisions revolve around the choice to hold an existing monument, set a new monument, or choose between multiple existing monuments. Part one of this seminar is an in-depth discussion of principles that form the basis of this critical decision, including the rules of construction, sufficiency of research, and relevant common law for the analysis for several types of property corners.

Kristopher M. Kline, president of 2Point, Inc., has a Bachelor of Science degree (class of '84) in general science from Bridgewater College in Bridgewater, Va. He has been involved in the surveying profession since graduation. Licensed in North Carolina in 1991 (P.L.S. L - 3374), Kris is a 1999 graduate of the North Carolina Society of Surveyors (N.C.S.S.) Institute, a three-year continuing education program that for many years drew national attention for the quality of its curriculum and instructors. Kris chaired the N.C.S.S. Education Committee for three years. In 2001, Kris began offering continuing education courses in North Carolina on legal aspects of retracement. More recently, his teaching career has expanded to include conferences and seminars nationwide. Course offerings now include a broad range of topics, including adverse possession and other unwritten rights, riparian law, mineral rights, and courtroom preparation. Customized courses tailored to the jurisdiction in which they are presented enhance their value to the professional. Kris has presented several keynote addresses for state conventions. In 2011, he began publishing the column "Unmistakable Marks" in Point of Beginning magazine, a national trade journal for surveying professionals. Kris presently submits bi-monthly articles for the magazine, and he has published more than 50 articles to date. These write-ups are intended for a national audience and generally focus on various legal aspects of boundary retracement. In August 2013, Kris published his first book, "Rooted in Stone: the Development of Adverse Possession in 20 Eastern States and the District of Columbia." This text considers adverse possession and prescriptive easements from their early origins to the present day. Separate chapters are dedicated to variations between jurisdictions in the eastern United States. His second book, "Riparian Boundaries and Rights of Navigation," includes extensive discussion of the many definitions of the term "navigable." This short volume was completed in 2015 and focuses on property rights along smaller rivers, streams, lakes and estuaries. It considers the inevitable confusion that results when modern definitions are applied to early grants and the effects of subsequent legislation on riparian rights. Kris' third (and latest) book was released in December 2016. "How to Fix a Boundary Line" chronicles variations in the legal mechanisms related to unwritten property rights across the United States. Topics include acquiescence, part performance of oral contracts, adverse possession, estoppel and the doctrine of merger.

How Ohio Got Its Shape

One would want to believe that with over 400 years of history and 230 years of being a country that the boundaries of the states would be settled - but that would be a mistake. There have been matters that have gone to the Supreme Court even since the turn of this century where the states could not decide what their boundaries and rights were. Starting this workshop with a detailed discussion of the multiple and long standing issues that have been in dispute between the states of Virginia / West Virginia and Maryland, participants will learn about the history behind state boundary disputes, the solutions / compromises decreed by the Supreme Court, and numerous legal principles behind the decisions including junior / senior rights, intent, riparian issues, prescription, acquiescence, and following in the original surveyor's footsteps. With the Virginia / West Virginia and Maryland issues as a baseline, other Supreme Court decisions related to state boundaries will be introduced and discussed. While these discussions will span the country, Ohio issues will be emphasized.

David Lee Ingram is a Licensed Land Surveyor in three states, having been first Licensed in West Virginia in 1975 and later that year in Virginia. Maryland registration was granted in 1981.

He is a 1978 graduate of James Madison University holding degrees in Economics and Business Administration. Prior to retirement in the fall of 2016, Mr. Ingram owned and managed a surveying and engineering firm for over 40 years. During that time he was an active member of several state and national professional associations including the Virginia Association of Surveyors, West Virginia Association of Land Surveyors, Maryland Society of Surveyors, American Congress on Surveying and Mapping, National Society of Professional Surveyors, and Surveyors Historical Society. He has held numerous positions in these organizations including Secretary / Treasurer of the National Society of Professional Surveyors for three terms, two terms as a member of the Board of Directors of the American Congress on Surveying and Mapping, multiple terms and past Secretary of the Board of Directors of the Surveyors Historical Society, Chapter President and member of the Board of Directors of the Virginia Association of Surveyors, and a member of the Board of Trustees of the Museum of Surveying in Lansing, Michigan. He was a program evaluator for the Accreditation Board for Engineering Technology (ABET), served on the Surveying Advisory Committee at East Tennessee State University, authored several articles and papers dealing with the history of surveying, and has made numerous presentations related to the ethics and history of surveying and engineering. He continues many of these activities in retirement. Mr. Ingram resides in Mount Crawford, Virginia, where he is enjoying retirement and learning new skills as a machinist and silversmith as he restores and repairs antique surveying equipment.

11:00 am – 1:00 pm Concurrent Sessions

Know When to Hold 'em and Other Procedural Pitfalls – Part I (continued)

How Ohio Got Its Shape (continued)

Friday, February 26

8:30 – 10:30 am Concurrent Sessions

Know When to Hold 'em and Other Procedural Pitfalls – Part II

This session will concentrate on adverse possession, prescriptive easements, and quasi easements. This is a general overview of several different principles. Knowledge of these topics will help the surveyor to improve his research and location techniques (both office and field) so as to better serve the client in cases where disputes may arise.

Not Your Grandfather's Surveying – Flying Robots in the Surveyor's Toolbox

This session will explore Unmanned Aerial Systems (UAS) activities and applications within surveying and mapping. It will also examine resources including hardware & software, examples/case studies, data quality and standards.

Gary A. Schuller, P.S. is Professor, Surveying and Mapping at the University of Akron. He began his surveying career in 1980, working as a rodman out of Canfield, Ohio. He spent time working as a draftsman, engineering technician, and instrument man and has been a licensed Professional Surveyor in Ohio since 1992 and has completed boundary, construction, and engineering-related surveys throughout northeastern Ohio. Gary served on a team of subject matter experts to update the national FS exam blueprint in 2018, which may now begin to include knowledge of Unmanned Aerial Systems (UAS). Gary has been a full-time faculty member at The University of Akron since 1999 in one of only 23 accredited Surveying programs in the United States. As part of a 4-month sabbatical from teaching in 2016, he began exploring the application of UAS and how this might impact surveying and mapping professional services and education. After passing the Part 107 exam he began to incorporate UAS into surveying classes such as Applied Photogrammetry and UAS Mapping. Gary's wife Susan says that "he loves surveying so much that he talks about it in his sleep." His reply: "if you ever decide to give up your nursing career, you'll be well on your way to becoming a surveyor!" Gary has been an

active volunteer with Habitat for Humanity of Summit County, completing 30 surveying service-learning projects with over 300 of his students since 2001.

11:00 am – 1:00 pm Concurrent Sessions

Know When to Hold 'em and Other Procedural Pitfalls – Part II continued

One Person Survey Crews and Remote Reporting

This two-hour session will present the evolution of the Total Station into motorized robotic technology used as a one-man field instrument showing the upgrades and enhancements to the technology through the years to present day. This includes changes and acquisitions by manufacturers in the industry and what the robotic instrument offers in today's world of positioning needs. We will look at the features and tools of the robotic unit as it now has become a sensor and part of a complete system solution providing a lighter, faster, highly effective productivity tool using current cloud technology, as well as combining GNSS technology to its capability of the most complete data acquisition and remote reporting tool. The robotic instrument has not gone away and in fact has grown and increased into other markets and applications and although it may look different since its inception in the early 1990's, it has taken advantage of field computing power and has increased in unit sales dramatically into various markets since 2009. The session will include a power point session that will cover the current field use robotic system utilizing GNSS and cloud technology demonstration including the real-time exchange of data between field and office.

Matthew P. Marchioni is currently the Topcon District Sales Manager overseeing distribution of Topcon – Sokkia Geo-Positioning products in the Northeast and Southeast US and has been employed with Topcon since June 2010. He has a Bachelor of Arts Degree in Communication from Seton Hall University, South Orange graduating in 1984. He followed his graduation by attending Morris County Community College in New Jersey for Surveying Technology and worked as a survey field crew chief until his hire as a salesman of survey equipment and supplies for retail store operation for 21 years. He has experience in the sales and technical support of all manufacturer brands of field hardware and field and office software and has witnessed the growth of the positioning products through present day technologies. He has been certified and trained on specific brands of product and has presented positioning technologies at local and regional Land Surveying events in the US and Canada, as well as various state DOT Design and Construction District offices and Technical Colleges and University Programs throughout the US. With over 30 years of Survey Industry experience, he brings a strong knowledge base of providing insight, product presentation and training and technical consultation into every surveying – Geo-positioning application.