Project Builder and Routine Maintenance Update

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In this issue of the *Roadsoft Roundup*, we'll highlight the Center for Technology & Training's (CTT) recent improvements to Roadsoft's Project Builder and Routine Maintenance tools. Also in this issue are a few more employee Spotlight articles, as well as some more Tips & Tricks.

Project Builder and Routine Maintenance Update

With the release of version 2020.8 of Roadsoft there have been some updates to the Project Builder and Routine Maintenance features, with the biggest one being the addition of a new Map tab. The Map tab allows users to find and select projects by location as well as by finding them in the existing project list. This can help make it easier to locate and select projects for editing and reports. However, one thing users should be aware of is that using the mapping feature with many projects may lead to slower processing times, in which case it's suggested to use filters to reduce the number of roads and projects on screen.

Additionally there is a new report format for the Project Builder that includes maps of the selected projects, which can provide a useful visual whether you're presenting to a audience or planning with employees. Finally, new projects will automatically fill in the surface subtype field based on the selected segments' subtype, though the field can still be edited later.

Hopefully these new features will make finding roads to select in the Project Builder and Routine Maintenance windows even faster and easier than before, saving users time and making it more economical to create and compare different plans.
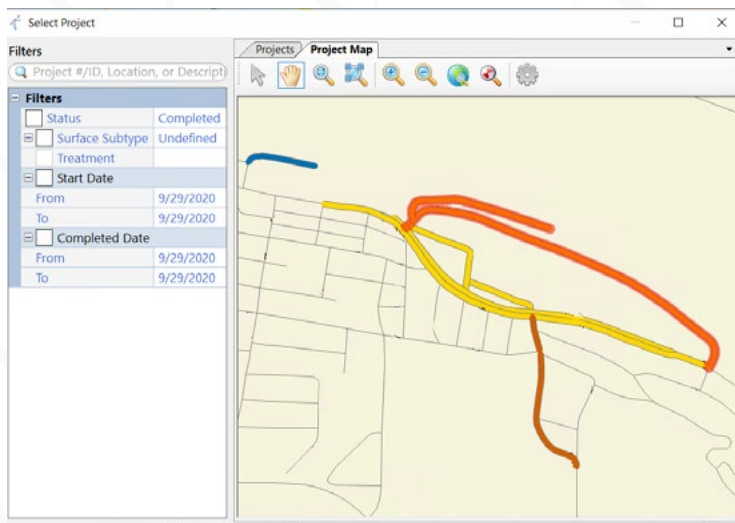
The new Project Map tab provides a new way to select projects.
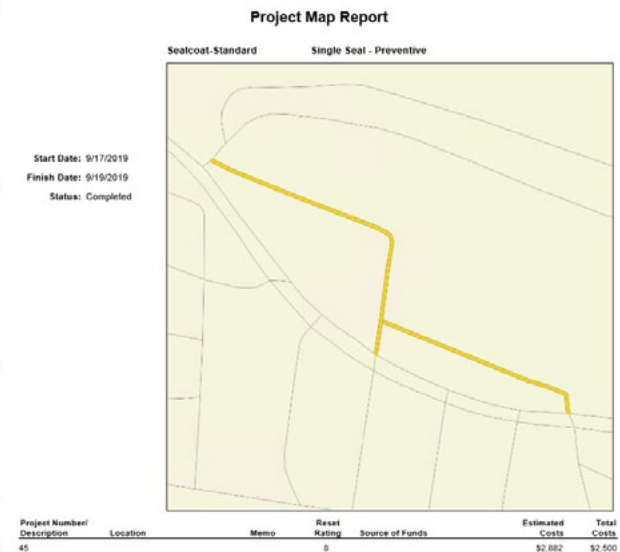
The Project Map report show projects on maps as well as providing information

Roadsoft Staff Spotlight

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Center for Technology & Training

Spotlight articles help Roadsoft customers get to know the people behind our programming, and in this case, also serve double-duty as send-offs for this article's entries, senior program manager Gary Schlaff and senior software engineer Mike Pionke. They have been invaluable to Roadsoft and the CTT, and we thank them for all they have done!

Gary Schlaff

Senior Program Manager Gary Schlaff

Gary Schlaff started working for the CTT in 1995, and over time he has worked his way up from one of two programmers working on Roadsoft to the senior project manager for a greatly expanded program. Originally from Detroit, Michigan, Schlaff took classes at Michigan Technological University and eventually settled back in the area and took on the role of directing and developing Roadsoft. As senior project manager, Schlaff oversees the long-term direction of Roadsoft, as well as the balancing of the day-to-day choices that keep the program running. Schlaff explained that "I make sure the projects get done, people are allocated, and I work on the proposals. I also try to keep us from overspending or underspending and pick up the slack where I can." There are always numerous projects and features that could be added to Roadsoft, so Schlaff navigates through it all with a guiding principle, "Whatever the users need to get their job done." This philosophy reflects Schlaff and the CTT's commitment to making software as usable for our users as possible. However, he added, that sometimes means they also need to do long term work on Roadsoft to ensure it remains functional, such as updating the code and rewriting older tools to keep them in line with evolving needs and data requirements. This careful balance between adding utility for users and keeping Roadsoft running as smoothly as possible is a major part of what makes Roadsoft such an effective tool.

While Roadsoft is constantly growing and evolving as a pro-gram, only so much work can be accomplished in any given year. An important part of planning Roadsoft's future development is communicating with the agencies and contractors that use it in order to figure out what they're most interested in seeing added. Some ways that Schlaff and the Roadsoft team get user input are focus groups, surveys, and user meetings. At the group meetings, the team presents the work done over the past year and discusses possible projects for Roadsoft in the future. Surveys are then sent out to make sure we get as much feedback as possible. Schlaff said that one reason this communication is important is because "We aren't engineers. I don't manage roads for a living. I've learned a lot, but I don't manage them." So talking to users provides valuable insight into what they prioritize when using Roadsoft and what's most useful to them going forward. Schlaff called user engagement with the development process the key to Roadsoft's success, both in the past and into the future.

One major challenge Schlaff noted is managing the scope of Roadsoft. With a wide range of customers hailing from dense cities, rural counties, and everything in between, there is a balance that needs to be struck in how Roadsoft manages the 'big picture' of data collection without making a program too overcomplicated or unwieldy to use. Schlaff described this balance as "trying to give them enough tools for the big offices, and not too much that the small agencies are overwhelmed. That's always been a bit of a challenge."

While Schlaff has a lot of experience writing code for Roadsoft, an average day for him now involves a lot more management than programming. He added that when it comes to a truly typical day for him, there is "No such thing. There's lots of interruptions, so it depends." Work for Schlaff can vary from writing proposal papers for Roadsoft to planning and reviewing development progress to working with other software like the Bridge Design System (BDS).

Outside of Roadsoft and the CTT Schlaff enjoys spending his time reading and gardening. He has primarily focused on veg-etables in the past but has recently begun getting into flowers

and other 'plants he can't eat' as well.

Schlaff also has plans to retire in early May. Thank you for everything Gary! Schlaff will be missed by Roadsoft users, BDS clients, and the CTT staff alike, and we wish him well for the future.

Mike Pionke

Senior Software Engineer Mike Pionke

Mike Pionke is a senior software engineer that has been with the CTT since the spring of 2005, back when it was known as the Technology Development Group. Originally from Portage, Michigan, Pionke has a degree in mathematics from Michigan Technological University. Since then he has leveraged his knowledge of coding and mathematics and his experience with system administration towards developing and updating Roadsoft. Pionke has especially been involved with what he describes as "giving people the tools that they can use to do their jobs better" by creating and improving features and algorithms in Roadsoft.

Pionke had previously been working for the Information Technology (IT) department at Michigan Technological University, but after he left the IT department he was in the market for new employment, which led to him joining the CTT as a programmer. Joining the Roadsoft team was an exciting move for Pionke as he had previously done system administration work but was making a move to full-time programming at the CTT. His background with system administration, knowledge of mathematics, and previous academic experiences with programming proved invaluable in working on the algorithms used in parts of Roadsoft, such as strategy and optimization features or the Project Planning & Selection tool.

Pionke explained that as a senior software engineer, he programs code for Roadsoft and his particular focus is on the math used behind the scenes. Features like the Strategy Optimization & Evaluation tools and the Project Planning & Selection tool use algorithms to predict future conditions of roads, which helps users to plan work and maintenance programs. This also often leads Pionke to work closely with users through focus groups or other settings in order to get a handle on what tools would help them best. He described the process of putting together a plan for improvements as, "there's always a wish list of things people would like to have, and once that boils down to an actual work plan item, then the engineer interprets the work plan item." Then Pionke integrates those changes into the software code while ensuring the existing code is remains functional and that everything meets any requirements of government or engineering organizations.

Feedback isn't the only reason Pionke talks with users, though. Programmers also help with "technology or information transfer," which involves teaching users about how Roadsoft functions through training sessions, conferences, and webinars. It also includes answering technical support questions. On an average day, Pionke spends most of his time working on programming tasks from either Roadsoft's yearly work plan or other CTT programs like the Bridge Design System (BDS), but he also regularly assists users with questions or concerns. For example, in one recent session Pionke described how "There's some reports that we don't directly do, but we have the information, so I'm working on how they can extract the information from Roadsoft so that they can get the report that they are looking for."

Upcoming Roadsoft Training

Meeting the TAMC Reporting Requirements Using Roadsoft
Tuesday, December 8, 2020
http://ctt.nonprofitsoapbox.com/2020tamcreporting-dec

Special Topics in Roadsoft: The Drainage Network Module
Wednesday, December 9, 2020
http://ctt.nonprofitsoapbox.com/2020rs-drainage

Upcoming CTT Training events can be found at http://ctt.nonprofitsoapbox.com/upcoming-events.

Agencies that have specific technical support questions or issues, or those that would like personalized training, can send a request to roadsoft@mtu.edu.

Some things Pionke enjoys doing outside the CTT are gardening and raising chickens. He grows both flowers and vegetables and has plans to rebuild a small greenhouse on his property. Recently he's been trying his hand at growing seasonal plants from seeds instead of buying seedlings and has found the most success with flowers so far, particularly petunias and marigolds. He has served as a volunteer fireman with the Stanton Township fire department for 30 years, including 20 years as chief. Pionke also enjoys fishing and hunting and claims that ultimately, "Everybody's hobby up here is moving snow ."

Thank you, Mike! Pionke is currently part of a phased retirement plan and will be greatly missed by the CTT staff and the many Roadsoft and BDS users he has worked with over the years when he does retire. We wish him all the best going forward.
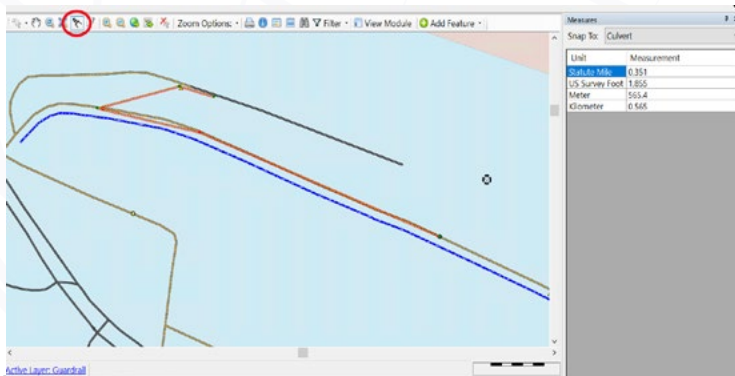
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Roadsoft Tips & Tricks

In this article we continue to present handy tips and tricks collected from conferences and presentations by highlighting few tools from the main menu that help make navigating the program quick and easy to use.

Tip #5: Find Distance with the Measure Tool

The Measure tool is a handy feature in Roadsoft's Map tab tool bar. The Measure tool allows you to measure the total distance between specified points and assets on the map, which can be useful for planning work, calculating materials needed, and finding things like sight lines for signs.

When using the Measure tool clicking anywhere on the map will allow you to plot a path to measure, starting with the two ends. Then clicking on further points will either add them to the end of the path or reroute the path so that it runs through that point along the way. These points will snap to assets of the chosen type if there are any close enough, but points can also be selected and dragged to reposition them as needed.

 In addition, selecting the Measure tool also opens the Measure tab, which displays the total distance measured in various units (statue miles, US survey feet, meters, and kilometers) and allows you to switch the type of asset that the measurement points will snap to when placed.

Tip #6: Plotting GPS Points on the Map

One useful feature found in Roadsoft is the ability to locate specific points on the map by their GPS coordinates. This can be useful for getting to specific places on the map without spending a lot of time scrolling around and can make it quicker and easier to place new assets in the database, locating existing assets, map out distances with the Measure Tool, and generally navigate the Map tab.

The Plot Point on Map option can be found in the Main Menu options of Roadsoft. After entering a latitude and longitude in the GPS Point Locator window, the feature will locate the point on the map and highlight it. From there you can navigate the map and use other tools as normal and the GPS point will remain so long at the GPS Point Locator window is still open.

The Measure tool button, highlighted in the image, opens the the Measure tool tab.
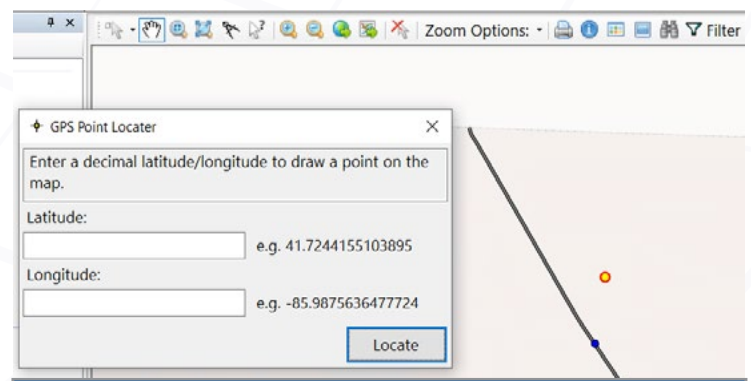
The GPS Point Locater window lets users enter a latitude and longitude and mark the point on the Map tab.