4th Digital Delivery Quarterly Session

June 27, 2024

Question: I am a Civil Engineer in Construction at PennDOT. For over a year I have been asking how to access a floating license of ORD so I can train now and use on the job later.

Answer: PennDOT employees can submit a service ticket to have the ORD software installed on their computers. PennDOT does not provide floating licenses to external users for ORD. The construction users will be utilizing the Design Review software or SYNCHRO which is not the same as ORD. They utilize the same model but are intended for those that are interacting with the model such as reviews, inspections etc. A Sandbox environment has been established for users to test the SYNCHRO system.

Question: How will this work with multiple operations in the same location? I.e., multi-year construction projects with temporary pavement or drainage features that will be removed in the next year construction?

Answer: Those workflows vary based on the type of work being completed. Part of this process is trying to virtually construct the project and anticipate as much as possible. Communication and collaboration play a key role with these workflows.

Question: Different operations in the same location. Sewer replacement while maintaining the existing sewer system. Same with any underground utility (or temporary poles) or storm sewer system.

Answer: We are modeling both existing and proposed utility which can check for clashes with other elements such as drainage pipes or structures. This can be accomplished using the different levels of SUE accuracy. We are also working on processes to identify utility poles as existing, to be removed, temporary, or proposed within the model.

Question: Will environmental features, i.e., designed wetland sites or natural enhancements, stormwater control measures, delineated waterways be included at some point in Digital Delivery? This would help with quantities as well as generating impact #s. For example, pipe placements may benefit from knowing this information, as well.

Answer: Currently there is development with drainage and utility features within the workspace. Future expansion will take into account environmental features that are applicable to 3D elements. Item types will be incorporated for element priorities for quantity generation. Within ORD, environmental impacts can be calculated as 2D areas based on the features created in the model files using the correct 2D feature definitions.

Question: Are other units other than project delivery to use Project Wise for that each project?

Answer: We are willing to speak with whatever group is interested in using or need assistance with ProjectWise in the department. The ProjectWise environment is how we

have all our external consultants collaborating with the department. ProjectWise acts as the central hub, it connects out to both design software and construction software. This allows everyone to use that same single source of truth, that single model, files, and information. This prevents having copies of all the files in multiple locations. So, it does not matter if it is a model or a document, it is all together with the project in the ProjectWise environment.

Question: Appreciate the forward thinking by the department preparing for the future and utilizing the technology that is available in the design and construction process. Can you speak to the status of assets that are part of routine maintenance beyond guiderail, such as signs, pavement markings, snowplowable raised pavement markers, etc.? Are there reference files formatted for integration of feature attributes? I understand that these are lower priority for digital delivery and identifying as primarily 2D at this point.

Answer: The workspace includes item types and feature attributes for ancillary assets that can be applied to 2D and 3D features within the design. As part of the ADCMS grant project, we are exploring the operations and maintenance aspect of data collection of these assets.

Question: How will Digital Delivery accommodate the different software packages, i.e., Bentley vs Autodesk?

Answer: The digital delivery interim guidelines are being developed to define standards and workflows that can be accomplished using different design authoring tools. Specific modeling workflows that are software dependent are being created for the use on the pilot projects. The team is continually working with software vendors, such as Bentley and Autodesk, to review products and workflows that fit within the initiative.