

Torsdag 7 november 2019							
Room - New York							
Kaffe och registrering / Coffee and registration							
Välkomna/Welcome							
Thomas Vincent and Mattias Hemmingsson							
Innovations of a Digital Infrastructure Industry							
Each day the infrastructure industry is seeing new benefits as a result of 'Going Digital'. Join Dustin Parkman , Vice President of Civil Infrastructure, for an informative keynote spotlighting key innovations that are making this movement possible. This keynote will showcase the latest in OpenRoads technology, CONNECT Services, and much more, including a glimpse into the next big innovations to come in 2020.							
Dustin Parkman							
ProjectWise 365: Digital Collaboration for Teams, Projects and AEC Firms							
A high level introduction to the new ProjectWise 365 service, which aims to deliver a series of new capabilities based on industry-leading ProjectWise collaboration platform where by ProjectWise 365 is purpose-built for small to mid-sized teams, projects and firms.							
Sam Stuart, Bentley							
BUS - Årsmöte							
BUS Styrelse							
Lunch							
Washington		Atlanta		New York (joint w. Rail)/Milano after lunch		New York	
Lecture - Bygg		Workshop - Civil		Lecture - Civil		Lecture - Rail	
Sydney		Stockholm		Paris			
Lecture - MicroStation and ProjectWise		Workshop - MicroStation and ProjectWise		Lecture - City planner/Reality Modeling			
13:00	Introduction to OpenBuildings Station Designer In this session users learn about the new key capabilities introduced in OpenBuildings Station Designer which includes pedestrian simulation, new parametric computational templates, ready to use catalogs for space layouts and equipments for space planning.	Site Modeling and Non-Corridor Modeling The intent of this course is to demonstrate how to turn 2D elements into 3D elements by adding profiles and elevations to civil elements that are typically found outside the limits of a roadway corridor (i.e. civil sites, building pads, parking lots, ponds, infield grading, bridge abutment grading, etc.) In this course you are going to learn how to create 3D elements (or features) and Proposed Terrains using fundamental site modeling and non-corridor modeling techniques. We will utilize the vertical geometry tools along with linear templates and the terrain modeling tools throughout this course. In the first part of the course you are going	Civil/Rail Keynote - What is New in the Latest Product Releases Join us for a review of what is new with the civil design software including OpenRoads Designer, OpenRail, Geotechnical (gINT), Subsurface Utilities, and MicroStation.	The MicroStation CONNECT Edition - Configuration 101 -Lecture	MicroStation CONNECT Edition Upgrade for CAD Managers – DGNLibs -Workshop	OpenCities Planner för kommunikation i Stadsutveckling och Infrastrukturprojekt Lär om hur OpenCities Planner används för att kommunicera stadsbyggnad och infrastrukturprojekt. Webbaserat för enkel tillgång till information i projekt och tydligare information i 3D till sakägare/medborgare ger stora fördelar. Kombinera designmodeller i ContextCapture mesh eller objektbaserade 3D stadsmodeller för visning i mobil, webb och utställningskärmar. Även plattform för smarta tillämpningar med attribut och sensorer.	
13:50	Raguram Jayaram, Bentley	Rob Nice & Maria Persson, Bentley	Ian Rosam, Bentley	Mark Marnell, Bentley	Ronald Zeike, Bentley	Hakan Engman, Bentley	
14:00	OpenBuildings Designer Working for Infrastructure Projects Very often building project requires coordination with other services such as roads, rails and other utilities. This session explores the best practices of working together in a geo-coordinated environment, responding to changes and exchanging information for downstream construction workflows.	Site Modeling and Non-Corridor Modeling cont.	Moving to OpenRoads Designer - Workspace Development -Lecture	Customizing the MicroStation CONNECT Edition -Lecture	cont.	OpenCities: Model City-Scale Digital Twins in its GIS Repository Stakeholders in city departments need accurate information to make informed decisions about their cities. The integration of reality meshes created by ContextCapture in OpenCities Map allows you to quickly model a city. OpenCities Map allows you to segment and add semantic information to the mesh by creating a link between the mesh and the spatial database of the city. Discover new capabilities to facilitate the extraction of CityGML geometries from the mesh and the addition of CityGML element editing with OpenCities Map. Learn about these new features and how to add real-world digital context to your city projects.	
14:50	Raguram Jayaram, Bentley	Rob Nice & Maria Persson, Bentley	Dan Ahern, Bentley	Mark Marnell, Bentley	Ronald Zeike, Bentley	Jerard Marsh, Bentley	
15:00	What is New in latest CONNECT Edition versions? Learn about the new enhancements to improve productivity in the latest OpenBuildings Designer CONNECT Edition. The session covers enhancements in the functional areas of architectural and mechanical modeling, visualization, drawing production and the utilities to manage file naming and compound cells	Introduction to OpenSite Designer This course is designed to help users understand the basic tools within OpenSite Designer. Users will learn work-flows for creating a site project and also learn about using the new automation and optimization tools for grading. You will begin by creating the conceptual horizontal layout of the site that includes the building footprint, parking lots, main drive and connector drives. Once the conceptual horizontal layout is complete you will run the Grading Solver which will optimize the grading for the site and also define the elevations of the 3D site elements.	Configuring an OpenRoads/OpenRail Designer Managed Workspace in ProjectWise OpenRoads/OpenRail Workspaces can be complicated. Workspaces managed in Projectwise can add to that complexity, but they also offer significant benefits when working in large or dispersed environments. Join us to learn how to implement OpenRoads managed workspaces. Do you want to try it yourself? This session is also offered on Tuesday as a hands-on workshop.	Adding Value to Rail Projects with OpenRail Designer Join us to explore how OpenRail Designer extends OpenRoads Designer with rail specific tools including turnout and crossing geometry, regression, cant, 3D rail design, and sleeper modeling. We will also look at workflows to model mainline tracks, yards, and tunnels and hear about the latest software enhancements and plans for the future. You will leave understanding why you want to use OpenRail Designer on your next rail project.	Managing Project Digital Twins with ProjectWise iTwin™ Services are a set of cloud services that enable organizations to create, visualize and analyze digital twins of infrastructure projects and assets. iTwin Services provide web-based and immersive visualization to allow project teams to understand the implications of design decisions early in the project. Existing file-based workflows are bridged through services that transform data from multiple formats into one normalized data model for the purposes of visualization and reporting of change. Learn how to incorporate engineering data, reality data, and other associated data—from diverse design tools and other sources—into a living digital twin, with no disruption to your current tools or processes.	Advanced Customization of the MicroStation CONNECT Edition User Interface -Workshop	What's New in ContextCapture Discover the latest reality modeling technology updates in ContextCapture to streamline your workflows.
15:20	Raguram Jayaram, Bentley	Ian Joyce & Rob Nice, Bentley	Dan Ahern, Bentley	Kivanc Karakas, Bentley	Stefan Sigvardsson, Bentley	Ronald Zeike, Bentley	Jerard Marsh, Bentley
16:10	OpenBuilding Designer - CONNECTION Advantages Get introduced to the new cloud service offerings from Bentley. Learn to leverage its benefits for information exchange and integrating BCF files for coordination using CONNECT edition applications such as OpenBuildings Designer.	Introduction to OpenSite Designer Cont..	OpenRoads Best Practice - Civil Cells Join Bentley experts as they share tips and tricks for creating and using OpenRoads civil cells. Many of these tips and tricks apply to both OpenRoads Designer, CONNECT Edition and V8i versions of InRoads, GEOPAK, MXROAD, and PowerCivil.	OpenRail - Overhead Line (suggestion) Preview of the new overhead line design functionality in OpenRail Designer	Build Bridges Between Design and Construction with Connected Projects Bridge the gap between design and construction to deliver projects more efficiently through seamless collaboration and a connected data environment. Overcome the challenge of transferring design documents and clearly communicating design intent to the construction team and break down silos around organization structure, poor communication pathways and disparate sources reducing risk and supporting overall project success.	cont.	Best Practices for Consuming Reality Meshes in Bentley's Applications See how to quickly consume 3D reality meshes into Bentley's applications to improve communication and collaboration and speed your inspections and operations workflows.
16:20	Raguram Jayaram, Bentley	Ian Joyce & Rob Nice, Bentley	Ian Rosam, Bentley	Kivanc Karakas, Bentley	Dan Cutler, Bentley	Ronald Zeike, Bentley	Jerard Marsh, Bentley
17:10	Mingel (dryck och tillugg)						
18:30	Middag						

Fredag 8 november 2019							
Rum	Washington	Atlanta	Milano	New York	Sydney	Stockholm	Paris
Spår	Lecture - Bygg	Workshop - Civil	Lecture - Civil	Lecture - Rail (Civil)	Lecture - MicroStation and ProjectWise	Workshop - MicroStation and ProjectWise	Lecture - City planner/Reality Modeling
08:00				Kaffe och smörgås			
09:00 09:50	Curtain Walls Några idéer till hur det nya verktyget kan användas	Template Triggers and Switches Learn how to create templates that use null points with component display rules that act as triggers (or switches) to display and undisplay parts of your template when linear geometry is added as corridor reference elements to a corridor. An example of this is turning off curb and grading components in intersections areas when in intersection matchline element is added as a corridor reference. We will also discuss how to create end conditions that can be used to check for the existence of a right of way feature.	OpenRoads Best Practice - Drawing Production Join Bentley experts for tips and tricks using the new OpenRoads Designer cross section and plan sheet layout and annotation tools.	Bentley Rail Signaling CONNECT Edition (suggestion) Product update	Achieve Consistent, Secure, and Auditable Submittals, and RFIs Discover how ProjectWise can save time and mitigate risk in your projects by automating, integrating, and codifying the creation, transmission, dispositioning, review, and close out of contractual exchanges. See how Deliverables Management fits into the ProjectWise workflow and the resulting benefits.	Reality Modeling Data Capture Best Practices Learn how to use the right technique for shooting a scene to ensure achieving the required accuracy, including things like how to define the flying height for aircraft or UAVs.	Uppdatering om OpenCities Planner Presentation primärt för dig som är existerande användare av OpenCities Planner. En lite djupare uppdatering om senaste funktionerna, tips och exempel på olika tillämpningar. Beskrivning av nya versionen som drifas på Microsoft Azure molnlösning och vad det innebär för existerande användare.
	Anna-Brita Krakenberger, Sweco	Maria Persson & Ian Joyce, Bentley	Ian Rosam, Bentley	Kivanc Karakas, Bentley	Dan Cutler, Bentley	Jerard Marsh, Bentley	Håkan Engman/Johan Göransson, Bentley
10:00 10:50	OpenSite Från en ContextCapture-modell till färdig situationsplan	Template Triggers and Switches cont.	OpenRoads Best Practice - Project Management Join Bentley experts as they share recommendations for organizing OpenRoads project data, files, and references. Federating and organizing project data, files, and references properly can make all the difference in the efficiency of OpenRoads and your design environment. Many of these tips and tricks apply to both OpenRoads Designer, CONNECT Edition and V8i versions of InRoads, GEOPAK, MXROAD, and PowerCivil.	OpenRail ConceptStation - Planning Stage Layout, Cost Estimations and Visualization Come see how the recently released OpenRail ConceptStation software enables rail designers during the planning stage to easily layout and generate cost estimates of rail corridors and yards, including overhead electrification. Once conceptualized, visualize the design model, including train animations, for clear communication with project stakeholders.	Advance Project Collaboration: Getting Started with Share and Microsoft 365 Integration See how to configure, activate, and combine ProjectWise Share, Microsoft Teams, and ProjectWise Flow connectors to connect project participants inside and outside of the design effort.	AccuDraw Basics -Workshop	OpenCities Planner för kommunikation i Stadsutveckling och Infrastrukturprojekt Lär om hur OpenCities Planner används för att kommunicera stadsbyggnad och infrastrukturprojekt. Webbaserat för enkel tillgång till information i projekt och tydligare information i 3D till sakägare/medborgare ger stora fördelar. Kombiner designmodeller i ContextCapture mesh eller objektbaserade 3D stadsmodeller för visning i mobil, webb och utsättningskärmar. Även plattform för smarta tillämpningar med attribut och sensorer.
	James Manfield och Anna-Brita Krakenberger, Sweco	Maria Persson & Ian Joyce, Bentley	Dan Ahern, Bentley	Kivanc Karakas, Bentley	Hans Koorneef, Bentley	Mark Marnell, Bentley	Håkan Engman, Bentley
11:00 11:50	Erfarenhetsutbyte Sweco Structures Norra Tomen Stockholm – modellering och samordning i OpenBuildings Designer. OpenBuildings Designer, ContextCapture och LumenRT i projekt	QuickStart for OpenRail Designer In this course you will learn how to perform horizontal geometry regression, define turnouts, define geometry for a siding, and model the rail corridor including the siding and a tunnel section.	OpenRoads Best Practice - Terrain Modeling Tips and tricks for working with terrain models including the best way to create a single terrain from multiple corridors and linear templates, how to create and use graphical filters to create a single composite terrain, how to export the terrain to other formats, and more... Many of these tips and tricks apply to both OpenRoads Designer, CONNECT Edition and V8i versions of InRoads, GEOPAK, MXROAD, and PowerCivil.	Updating the Design - What Happens When Things Change? This session will focus on what happens to OpenRoads data as changes are made throughout the design process. We will start with a completed preliminary design model and then discuss what happens when changes are made to terrain, geometry, templates and corridors. This session will give you a better understanding of how things update based on the rules and relationships that are part of OpenRoads technology.	Best Practices: ProjectWise Administration and PowerShell Overview and Use Cases Learn with real-world examples and techniques on how you can leverage ProjectWise and PowerShell for automation, consistent changes, reporting, and streamlining your workflows. Improve the support you provide to project teams while reducing the complexity of your administration work by learning the latest best practices from Bentley's ProjectWise experts.	cont.	Advanced Reality Modeling Workflows for Digital Cities In this presentation, you will learn when and how to combine different reality modeling 3D capturing techniques to create highly-detailed 3D reality meshes of cities and how to leverage those meshes to support your infrastructure workflows.
	Peter Loré, Sweco	Rob Nice & Kivanc Karakas, Bentley	Ian Joyce, Bentley	Ian Rosam, Bentley	Hans Koorneef, Bentley	Mark Marnell, Bentley	Jerard Marsh, Bentley
12:00			Lunch				
13:00 13:50	Using point clouds and laser scans (LE34) A hands on guide on using a phone, Bentley software and tools from TerraSolid for handling laser data.	QuickStart for OpenRail Designer cont.	New Geometry Tools and Enhancements Join us as we explore the newest Geometry tools and enhancements including the Geometry Builder and Geometry Connector. See why the powerful and easy to use Geometry Builder will likely become your favorite tool for creating and editing geometry. For those complex situations where you need to solve geometric layouts the Geometry Connector is used to specify the connecting line, arc, and spiral segments and control which segments are fixed and which are free to adjust to solve the layout.	Computing Earthwork Volumes with OpenRoads Designer Earthworks are one of the largest costs to consider for any project. OpenRoads Designer's model (BIM) based approach provides significant flexibility and accuracy in quantity calculations. Come see how the OpenRoads Designer model provides cut, fill, and unsuitable material meshes which are used to report volumes in a format to meet your project requirements. You can report on these 3D volumes with conventional end area volume methods, or compute volumes more accurately with a full prismatic approach directly from the 3d model, or even "slice" up the model to report volumes segregated for staged construction, different areas of the project, or for each plan sheet. This session is new. It was not taught at previous conferences.	Increase Productivity by Establishing Digital Collaboration Across Project Participants Outside the Design Team Discover how ProjectWise Design Integration, ProjectWise cloud services and integration with the Microsoft 365 environment can increase the speed and quality of collaboration, including project participants outside of the design effort or your organization. See a real-world example of leveraging ProjectWise to speed workflows across sponsors, project leaders and managers, business process owners, and consultants.	Using Parametric Solids, Constraints, Variables and Variants-Putting it all Together with Parametric Modeling	Open Cities Planner - Användarpresentationer <i>Visualisering av Geologi i 3D</i> Sveriges Geologiska Undersökning berättar om användning av 3D med fokus på sitt 3D rum och OpenCities Planner för att tillgängliggöra olika geologiska teman via en projektportal på hemsidan. Johan Daniels, SGU <i>Using Open Cities Planner in a 26km four-lane road-project in Norway</i> Nye Veier AS and Sweco Norge AS is planning a new four-lane road project between Mandal and Lyngdal in Norway. Open Cities Planner has been used to visualize data to the media and residents and to get feedback to the project.
	LE34	Rob Nice & Kivanc Karakas, Bentley	Ian Rosam, Bentley	Dan Ahern, Bentley	Hans Koorneef, Bentley	Ronald Zeike, Bentley	SGU
14:00 14:50	How to use point clouds when modeling (LE34) Generating and modifying terrain models using OpenRoads and Descartes.	Quantities and Earthwork In this course, you will learn various tools and methods to extract and compute quantities and end area volumes from the corridor model, and much more.	Site Modeling in OpenRoads Designer OpenRoads Designer is not just for corridors. Yes you can do site modeling with OpenRoads Designer! Join us as we explore how to model common site design elements such as building pads, parking lots, ponds, and cul-de-sacs. You will learn how to tie all those objects together to create a terrain model. Do you want to try it yourself? This session is also offered on Tuesday as a hands-on workshop. Many of these tips and tricks apply to both OpenRoads Designer, CONNECT Edition and V8i versions of InRoads, GEOPAK, MXROAD, and PowerCivil.	BIM Up Your Projects with OpenRoads/OpenRail You may have been asked, 'Do you use BIM?,' 'Are you BIM compliant?,' or even, 'What is BIM?'. But, the real question is 'Are you already BIM-ing?' In this session, we will discuss how OpenRoads/OpenRail is BIM. We will look at what it means in a practical sense, how it looks in production, and how to take advantage of information modeling in your designs and workflows. We will discuss questions like: What is an OpenRoads/OpenRail BIM model?, When does BIM start?, Why should I care about BIM?	Enable Proactive Design Workflows: Getting Started with Project Insights Dashboards See how to get the newest ProjectWise cloud service configured and activated to begin delivering real-time performance analytics on progress, status, and trends on the engineering and design effort. Learn how to help your project teams exploit the dashboards to enable more timely and informed decisions, more visibility into projects, and identify potential issues so that they can be mitigated before impacting project performance.	cont.	Make cities smarter with point clouds and TerraSolid An update from TerraSolid and examples how to utilize point cloud data better in city environment.
	LE34	Dan Ahern & Ian Joyce, Bentley	Ian Rosam, Bentley	Maria Persson, Bentley	Dan Cutler, Bentley	Bentley	Kimmo Soukki
15:00			Kaffe och kaka				
15:20 16:10		Quantities and Earthwork cont	Using Reality Models During Your Design Process This presentation covers how a design engineer can quickly create a reality model to use during the design process. From snapping a few photos in the field with a cell phone to a 3D model you can use in the design in a few easy steps using ContextCapture.	Creating Custom Reports in OpenRoads/OpenRail Designer Learn how to edit style sheets and explore options to customize OpenRoads Designer reports.	Best Practices: Managing Your MicroStation WorkSpaces in ProjectWise Learn how to promote greater design consistency, quality, and standards compliance by leveraging ProjectWise to manage and distribute approved WorkSpaces for Bentley applications. Explore key areas such as new managed Workspace formula, WorkSet Design, and Optimization.		
		Dan Ahern & Ian Joyce, Bentley	Rob Nice, Bentley	Kivanc Karakas, Bentley	Dan Cutler, Bentley	Ronald Zeike, Bentley	
Lokal							
16:10 16:30				Avslutning / Closure			