

Follow-up Q & A from the CE News Webcast Series:

Civil Information Modeling for Transportation Infrastructure

December 9, 2009

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How many categories of data does this app provide?

If you are referring to InRoads, InRoads supports over 100 data formats. If you are referring to ProjectWise Navigator, it supports DGN and DWG formats. The i-model format is published allowing any application to produce an i-model.

A question I always ask folks regarding BIM is whether the B in BIM stands for Building as a noun or a verb. By differentiating "CIM", use as a noun is implied. What are your perceived risks behind this differentiation? Does "CIM" fundamentally offer something different that "BIM" does under the auspices of how to effectively realize value of collaborative models?

First, Bentley tries to refrain from the CIM acronym due to its standard notation within the hardware industry, always spelling out Civil Information Modeling. Many try to apply Building (noun) techniques and standards to a civil (horizontal) environment. As noted in the presentation, when using Building (noun) techniques, there are inherent issues in the process. Part of the intention of the presentation was to alert users to potential issues when using Building (noun) techniques in a civil building (verb) environment.

Is there any national effort by DOTs to standardize CADD products?

AASHTO has several initiatives regarding common standards, but I do not see those coming to fruition in the near future.

When designing with cross-sections, does it create straight line elements between sections or does it apply vertical curves to all lines?

Bentley does support the slope rounding required by Caltrans. DTM features are stroked. The stroking tolerance can be controlled through a chord height tolerance. Geometry strings are true vertical curves.

Once you move a point in the section does the cut and fill line dynamically change in plan view?

Within the Roadway Designer and as shown in the presentation, yes.

What software group does Roadway Designer run in?

Roadway Design runs in all Bentley civil applications – InRoads, GEOPAK and MXROAD.

How many attendees voted?

248.

Can Navigator be used as a standalone product with V8i/InRoads, or does it have to be part of the ProjectWise Solution? Thanks.

ProjectWise Navigator can be used as a standalone product.

Can you do a walk through in the Navigator at different levels of the corridor, maybe at the subgrade level to see if pipes are in subgrade, or run a clash detection between pipes and subgrade?

Yes.

Looking long term, how does this integrate with the Building Systems apps?

ProjectWise Navigator is well integrated into the Bentley building apps.

Can you detect clash detection between surface water direction and location of inlets (low point)?

Users can easily identify low points as well as surface water direction.

Can ProjectWise Navigator run without ProjectWise being set up in an office?

Yes.

Are CIM and Navigator integrated with Bentley Geospatial Engine?

Yes.

Is the Roadway Designer part of MicroStation or is it a separate module from Bentley?

Roadway Designer is a part of InRoads, GEOPAK and MXROAD.

Which version of MicroStation does this run in?

InRoads is V8i SELECT Series 1.

What was the computing system configuration used to create the 3D model in the .avi presentation movies? Also, is there currently Windows 7 support?

I used an HP laptop running in Windows 7 with 3 GB of memory. The model never stretched the system.

Can you print cross-sections showing the underground facilities size/position in the sections?

Yes.

How were the 3D utilities input into the model?

The 3D utilities were created using InRoads Storm & Sanitary tools.

Can the software integrate large LiDAR/laser scan point cloud files?

Yes.

Will the "i-model" only be accessible within ProjectWise?

No, ProjectWise Navigator is a standalone product.

Can we use PowerCivil for 3D modeling?

Yes.

What 3D output does Roadway Designer create?

Roadway Designer creates 3D output for MicroStation 3D line strings and 3D solids as well as InRoads features, components and DTMs.

Is ProjectWise Navigator packaged with MicroStation V8i out of the box or is it a separate app?

ProjectWise Navigator is separate application.

Are all the graphics presented generated by version V8i?

Yes.

What version of InRoads are you using?

V8i SELECT Series 1.

Can Bentley's LEAP Bridge model which is in XML format be managed by ProjectWise Navigator?

Yes.

Will the dynamic capabilities of Site Modeler also be added to the Roadway Designer?

They have been added to InRoads.

How big a LiDAR file can RD handle? How many million or billion points?

InRoads has no limits, but your hardware will.

Can the Z-value of the drainage be drawn in the vertical profile?

Yes.

What software was used for the utility 3D model?

The 3D utilities were created using InRoads Storm & Sanitary tools.

Since InRoads also runs on AutoCAD, will the dynamic modeling features in the works be available in ACAD too?

Roadway Designer is available with InRoads on AutoCAD.

Does InRoads use AASHTO standards only? Can I use DDOT or VA Standards too?

InRoads can be used for any standards defined in the file format Bentley delivers.