BIM for Civil… Not

Several months have passed since I made my original post BIM This, BIM That… What is BIM?. In that time, I have asked a lot more questions, read a lot more on the internet and had a lot of discussions with Ladd and Felicia and also read the post by one of our commenters. I think I've developed a more concrete idea about BIM and how it applies, or doesn't, to the civil/survey world and where the various software packages stand in regard to their "BIM-ability".

Now, after all this additional information has percolated in my brain, I'm drawing two main conclusions:

1. It's a fact that the term BIM as it's always been used applies to actual **BUILDINGS** — the noun form of the word. But, more specifically, it starts with construction drawings/design data but then incorporates the as-built data and, over time, continues to grow and collect data through the entire lifespan of the building.

Nothing in all this discussion of "BIM for Civil" gets beyond construction drawings and design data of a civil project. Autodesk is trying to stretch the definition of BIM to cover Civil 3D even though they never move beyond the design process with it either.

Remember, we do not talk about "BM" or Building Modeling. And, we don't work with "GS" or Geographic Systems. The "I" is THE critical factor. And the "I", or Information, piece of BIM is so valuable because it chronicles and helps manage the building through its lifespan.

To be able to legitimately call what we're doing with our Civil programs "BIM", we would need to have a mechanism to attach some

sort of database or information to the objects in our drawings.

I know, I know… that's why Civil 3D is so great – you can attach data to the objects. But, remember, we're talking about attaching **_AS-BUILT_** data to these objects. Even though we could attach data using Carlson GIS or AutoCAD Map or ESRI, it's simply not part of our current project scope to go back into our construction drawings and update them with as-built data so that:

- maintenance schedules are attached to roadway template surfaces based on asphalt type,
- model numbers are associated to pump stations or
- inspection reports and flow rates are attached to fire hydrant blocks.

My conclusion here is that neither of these products – Carlson nor Civil 3D – meet the true definition of a BIM for civil. Until we start addressing the Information piece for the lifetime of a project, starting with the as-built data, using the term BIM is wrong.

In my opinion, if anyone has the lead on this in the civil arena, it's ESRI.

2. Just because we don't yet attach as-built data to our objects doesn't mean that the data we do attach to our objects isn't valuable. But, leading to my 2nd conclusion, why is it valuable? It's only valuable if it can be shared. And this is where I believe Carlson has the undisputed edge. The image below shows the number of formats and other programs that Carlson is able to import data from and export data to.

Points

Explode Carlson Points
Convert Surveyor 1 to CRD

Convert CRD to TDS CR5
Convert TDS CR5 to CRD

Convert CRD to LDD MDB
Convert LDD MDB to CRD
Convert Land Desktop to Carlson Points
Convert Civil 3D to Carlson Points

Convert Carlson Points to Softdesk
Convert Softdesk to Carlson Points

Convert Carlson Points to C&G
Convert C&G to Carlson Points

Convert Carlson Points to Simplicity
Convert Simplicity to Carlson Points

Convert Leica to Carlson Points
Convert Geodimeter to Carlson Points
Convert Carlson Points To Ashtech GIS

Convert PacSoft CRD to Carlson CRD

Convert Carlson Points to EaglePt
Convert EaglePt to Carlson Points

Surfaces

Convert LDD-AEC Contours
Convert Civil3D Surface Drawing

Export Topcon TIN File

Centerline/Alignments

Import GeodiMeter
Import GeoPak Centerline
Import GeoPak Road File
Import Leica
Import MOSS
Import SDMS
Import Softdesk
Import Sokkia/Leitz
Import Spanish ISPOL
Import Spanish CLIP
Import TDS RD5 File
Import Terramodel

Export Leica
Export SMI Chain
Export Softdesk
Export Sokkia/Leitz
Export TDS

Profiles

Import Columnar Text
Import Caice
Import Leica
Import MOSS
Import Softdesk
Import Sokkia/SDR
Import Spanish ALZ
Import Spanish RAS
Import Terramodel

Export Softdesk
Export Leica

Cross Sections

Import Columnar Text
Import Agtek
Import Arkansas DOT
Import Ceal
Import GeoPak
Import Georgia DOT
Import IGRDS
Import MOSS
Import NC DOT
Import Pizer
Import RoadCalc
Import SMI
Import Softdesk
Import Spanish SC1
Import Spanish TRV
Import Terramodel

Import Caice Earthworks

Export GeoPak
Export IGRDS
Export RoadCalc

Originally posted on **Carlson Connection** by Jennifer Dibona