

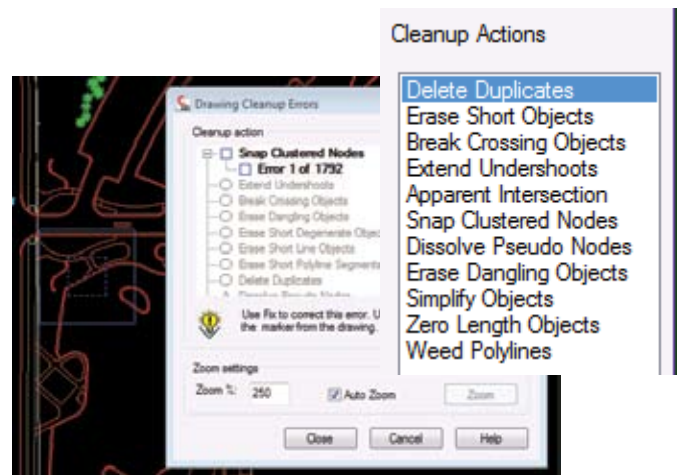
## The Case for Map 3D

Autodesk® Map 3D has features & functionality that can aid with both mechanical and architectural drafting, including automated cleanup of drawing files, attaching drawing files for data transfer, adding additional and custom information to objects, hyperlinking files to lines or blocks, and even streamlined connection to databases. These tools are often overlooked, but any drafter could apply them to easily enhance their productivity.

For some, having a seat of Map 3D may not seem to be an obvious choice. If you are not involved in the geographic information systems (GIS) business, there doesn't appear to be a reason that you would purchase a tool whose primary function is GIS. Actually, there are many reasons why you should consider owning such a tool. Most of these reasons are not because they are "map" specific, but because these tools sometimes help mappers they appear in this product but no others. This document reviews some of these reasons, and hopefully reveals the case for Map 3D. Our recommendation is that if you have only AutoCAD seats have at least one seat of Map 3D to access these tools. Map has all of the functions of base-AutoCAD, so it can act like the drafting tool you already own.

### Drawing Clean up

Due to the nature of GIS work, good drafting techniques are essential to that segment of CAD users. Unfortunately, many bad drafting practices become apparent well after a drawing (or map) has been created. Finding and fixing these errors would then require hours of clean-up. Sometimes these errors are nearly impossible to detect. For this reason Map 3D has included several "clean up tools." This batch of tools can search out drafting errors and correct them. What's best is it can find errors that are literally imperceptible such as "zero-length objects."



### Attach Drawings

Since GIS work is usually done in very large areas such as entire cities, the drawings can become quite large. The file size can become even larger when you take into account the amount of data that is necessary to be displayed. Map includes the ability to "attach" outside drawings together, so that objects in one can be shared with another. This is different than XREFing since the attached objects can maintain a live link, and editing in the new drawing can update the source.

Where this ability really pays off is in the case of a corrupted drawing. File corruption should be an infrequent issue, but it happens. Hours of rebuilding an entire drawing can be avoided by being able to attach the drawing to a clean new drawing and transferring the remaining good data. Most times it turns out that the corruption was in one tiny object, but it blocked the opening of the file.

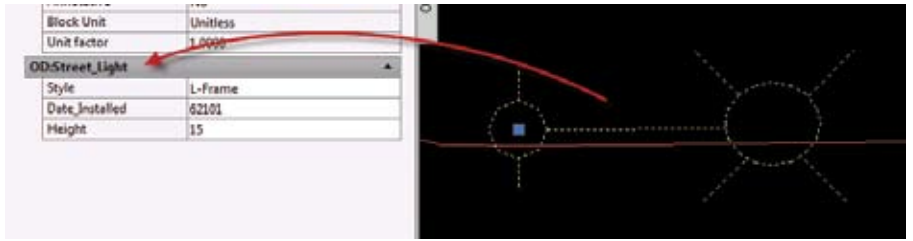
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## Attaching Object Data Tables

If you've ever accessed the Properties palette of an AutoCAD object you can see there is a lot of really good data included. What if you could add to that available properties data?

Map allows for data tables to be created in a

very user friendly way, and then attached to individual objects. The data could be anything, and several tables can be attached to an individual object. This makes the amount of customizable data attached to an object nearly limitless.



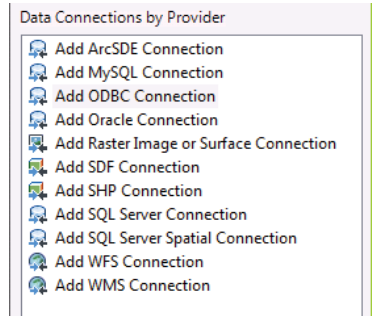
## Hyperlinking

A picture speaks a thousand words. What if you were able to click a CAD object and have a picture open? Or even a website? Map allows for hyperlinks to be attached to drafting objects so that files can be opened from those objects. This provides a platform for data to be closely related, and accessible, but not in the way, or weighing down the drawing you are in.



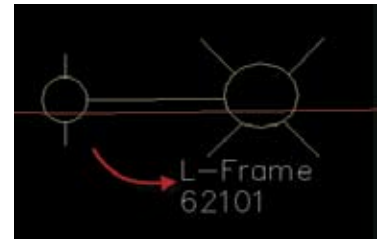
## Connecting to a Database

The primary function of GIS work is connecting to data. In a majority of cases this means connecting to a database. Map allows connection to many popular databases, including Oracle, and SQL, among others. You can also attach raster images more efficiently through this method. While most of the options are built for geographic database connection, these tools can expand how project data can be accessed.



## Annotation Templates

Objects can have annotation that displays information specific to that object. It's much more than the multiline or single line text. This is smart text that looks at the properties of the object and can display certain aspects of it. This function can also make the label look stylistic depending on your needs.



## Coordinate Georeferencing

This feature is more related to geography than the others listed above. If you are using AutoCAD to draft things at a coordinate system, the Map tool is indispensable. Perhaps your drawing is going to be used by a civil engineering firm and they have requested it be geographically correct. Perhaps you are working around a building that already exists and a geographic referencing would help in the finished product. You can assign a coordinate system to the drawing so that what you draft is appearing correctly on a curved planet.

These tools are often overlooked when planning a proper workflow. Even if you had just one seat that usually is used as straight AutoCAD, you have access to tools that could add real productivity when the need arises. Hopefully you can see benefits to the Map 3D product.

## ABOUT THE AUTHOR

**Russ Nicloy** is an Application Engineer at MasterGraphics, specializing in Civil Engineering design solutions. Russ uses his first-hand knowledge of industry standards and practices as well as Autodesk software expertise to consult, train and support a wide variety of AEC clients on both civil engineering and GIS/Mapping solutions. Prior to joining MasterGraphics, Russ worked in the civil design industry for more than 10 years in positions such as Engineering Drafter, Construction Drafter, and Crew Chief Assistant for survey crews. He received his Bachelor of Letters and Science degree from the University of Wisconsin-Milwaukee.

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