



# GEN10753 – Ins and Outs of Attributes

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# Ins and Outs of Attributes

## Class Summary / Description

- Automating Attributes is a great way to speed up the drawing process! During this class we will learn how to import existing design data into your drawings through an automated process using an AutoLisp program. By using existing data you will add consistency between your design teams. This will lead to less user input errors, and the ability to automate input thus increasing the accuracy and productivity.

# Housekeeping

- Noise distracting devices -
- If you feel this is not the class for you –  
feel free to find one that does meet your needs.
- If you have to leave – please do so quietly
- Please be courteous of others –
- Please save questions till end –
- And please fill out those pesky and dreaded evaluations!



# Philosophy of Shared Data

The major emphasis I want to show and stress is a philosophy to find ways to use and share existing data in the design process to help save time and money. By using the same source for the data, you are guaranteed consistency because you have reduced the number of misdirected keystrokes. The ability to automate the input of data because it is existing saves time and money; which makes you look good in the eyes of the boss, and we all like that.



# Background of Attendees:

## How many of you have -

- Used ATTDEF and created an attributed block
- Have used Excel to manage data
- Have experience with AutoLisp
- Have extracted data out of the drawings
- Have read the handout

# Key Learning Objectives

At the end of this class, you should be able to:

1. Create an attributed block, and be able to manipulate it.
2. Learn how to modify a provided AutoLisp routine to work with your block
3. Learn how to format data to use with the modified AutoLisp
4. Insert that block multiple times with your data set in the attributes
5. Be able to get the attributed information out of the drawing so that you can share it with others.

# Creating an Attributed Block

- Use ATTDEF to create an attribute
- Add graphics if required to your block
- Create the block, pick the entities in order
- Test the block by inserting
- Use BATTMAN to tweak your attributes to perfection
- Use block editor to edit the graphics



# Editing the LISP file

- Learn minimal AutoLisp for program hacking (AutoLisp 100.5)
- Customize the program for your company standards
- Learn how to modify a provided AutoLisp routine to work with your block
- Tips from experience

# Basic AutoLisp 100.5 (not even 101)

- Anything following a ; "semicolon" is a comment and is ignored.
- Every ( "open parenthesis" must have a "closing parenthesis", not necessarily in the same line.
- Every quotation mark " must have a closing quotation mark ", items inside quotation marks are taken as literal.
- Numeric values work best with leading and following zeros "0.125" "4.0"

# Editing the LISP file

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# Formatting Your Data

- Your data can come from almost any source.
- Best sources are existing spreadsheets or databases.
- The number of fields (data field) needs to be the same as the number of attributes in the block
- Blank fields are different than fields with a “space” = “ ”
- Data needs to be in an ASCII format for AutoLisp to read it.

# Using Your Block and AutoLisp

- Set up the file with the block definition
- Load the AutoLisp file to your drawing
- Run the AutoLisp program with your data
- Review for the desired results

# Creating the Extraction File

Two methods for doing this:

Old School -

- Creating simple text file with minimum values
- Good for just a few drawing files unless automated

New School –

- Newer template file format (blk or dxe)
- Extraction process – 8 pages of options
- Good for a large number of files



# Extracting your data

Old School –

- Creating the template file
- Extracting the data
- What you get out of the file
- Combining data from spreadsheets

# Extracting your data

New School –

- Using the DATAEXTRACTION or EATTEXT command
- Saving the template
- Making the selection of what information you want
- Extracting and saving data

# Key Learning Objectives

## Summary of What We Covered:

1. Create an attributed block, and be able to manipulate it.
2. Learn how to modify a provided AutoLisp routine to work with your block
3. Learn how to format data to use with the modified AutoLisp
4. Insert that block multiple times with your data set in the attributes
5. Be able to get the attributed information out of the drawing so that you can share it with others.



# Questions:

If we do not get to it in class, please feel free to contact me.

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