

User Guide

# Simple FM Tools

Version 1.0

For AutoCAD & AutoCAD Architecture 2015-2017



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Using Simple FM Tools™

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# About Simple FM Tools™

## System Requirements

- AutoCAD 2015-2017 and/or AutoCAD Architecture 2015-2017

## License Types

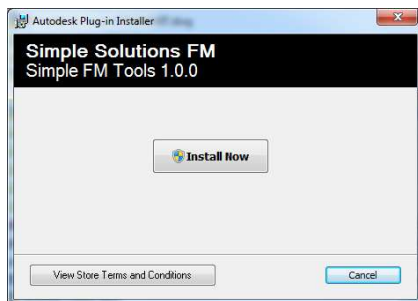
- **Software Key.** Single hardware installation license.
- **Tag mode.** An unlicensed version of the tool that provides a basic set of tagging tools used to output an attributed DWF file that can be imported into the EvolveFM CAFM system.

## Installation

1. Run the Simple FM Tools .msi setup file.



2. Click the Install Now button.



3. Product installation:

Simple FM Tools will automatically be installed in the AutoCAD 2015/2016 and/or AutoCAD Architecture 2015/2016 application(s) installed on your computer at the time of the setup process.

## Free Trial (Tag mode)

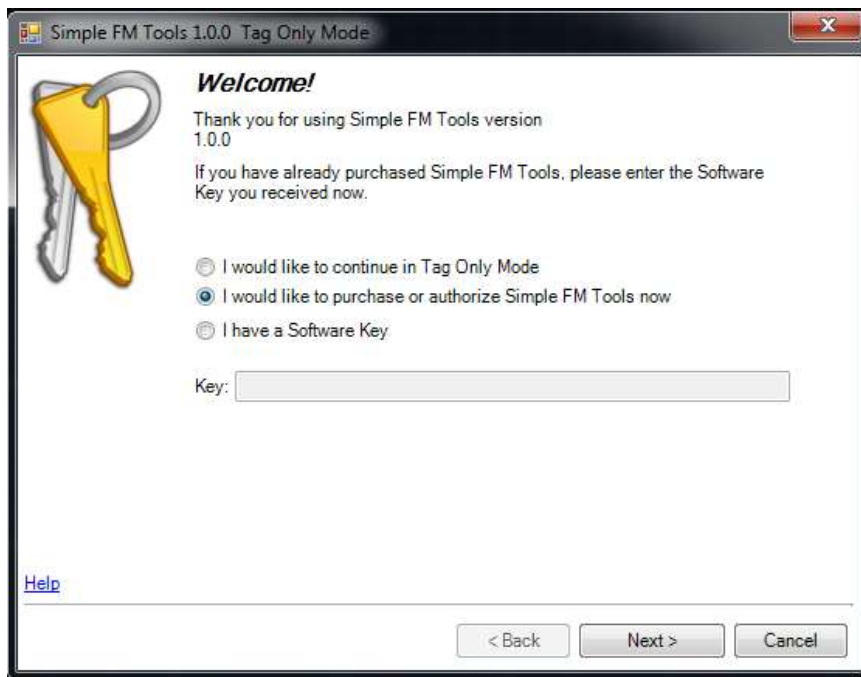
The free trial of the tool operates in Tag mode which is used to output an attributed DWF file that can be imported into the EvolveFM CAFM system or used alone. All other tools are disabled in Tag mode; however Tag mode provides the opportunity to explore the 3 tool palettes available in a licensed version of Simple FM Tools.

## Activating a License

The Tag mode version of Simple FM Tools is the plug-in's default installation mode. Once the tool is installed, a single installation license can then be activated by purchasing and receiving a software key from Simple Solutions FM.

### How to request a software key:

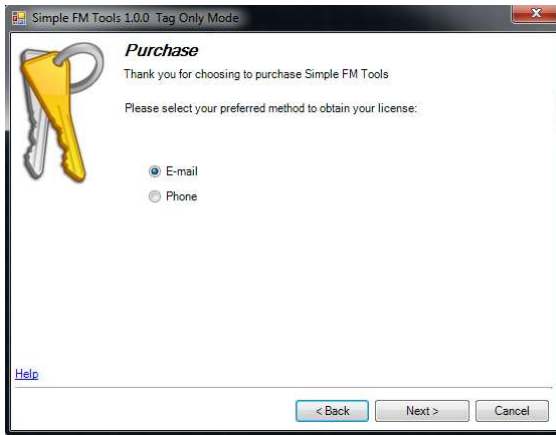
1. After you have installed Simple FM Tools, open your AutoCAD product and the Simple FM Tools Welcome screen will display. Choose one of the three options to continue.



<b>Option 1</b>	<b>I would like to continue in Tag Only Mode.</b> When selected, this option will display the “Tag Only Mode” button. Click the button to use the unlicensed version of the tool and close the Welcome screen (the Welcome screen will display each time AutoCAD is opened while using the unlicensed version of the tool).
<b>Option 2</b>	<b>I would like to purchase or authorize Simple FM Tools now.</b> When selected, this option will display the “Next” button. Click the button to continue the activation process and display the Purchase screen shown on the next page. Use this option if you need a software key.
<b>Option 3</b>	<b>I have a Software Key.</b> When selected, this option will display the “Authorize” button. Click the button to activate your license and enable all functions on the fmTOOLS™ palette when a software key is entered into the Key text box. Use this option if you have software key.

If you selected option 2 “I would like to purchase or authorize Simple FM Tools now”, continue to step 3 below, otherwise the installation process is complete.

- On the Purchase screen, choose a method to request your software key from Simple Solutions FM.



<b>E-mail</b>	This option generates your request Code & opens the Order via Email screen shown below.
<b>Phone</b>	This option generates your request Code & opens the Order via Phone screen shown below.

#### Email:

#### Phone:

- Phone or Email the code displayed in the Code text box to Simple Solutions FM to purchase and receive a software key.
- When you receive your software key, enter it into the Key text box and click Finish to activate your license and enable all functions on the fmTOOLS™ palette.

### About your Software Key

Your software key is a single installation license configured for the system that generated the request code.



## Using Simple FM Tools

Simple FM Tools™ is a 3-tabbed AutoCAD tool palette plug-in for AutoCAD & AutoCAD Architecture that delivers:

- Text insertion tools
- CAFM polyline & text auditing tools
- Attributed DWF publishing tools

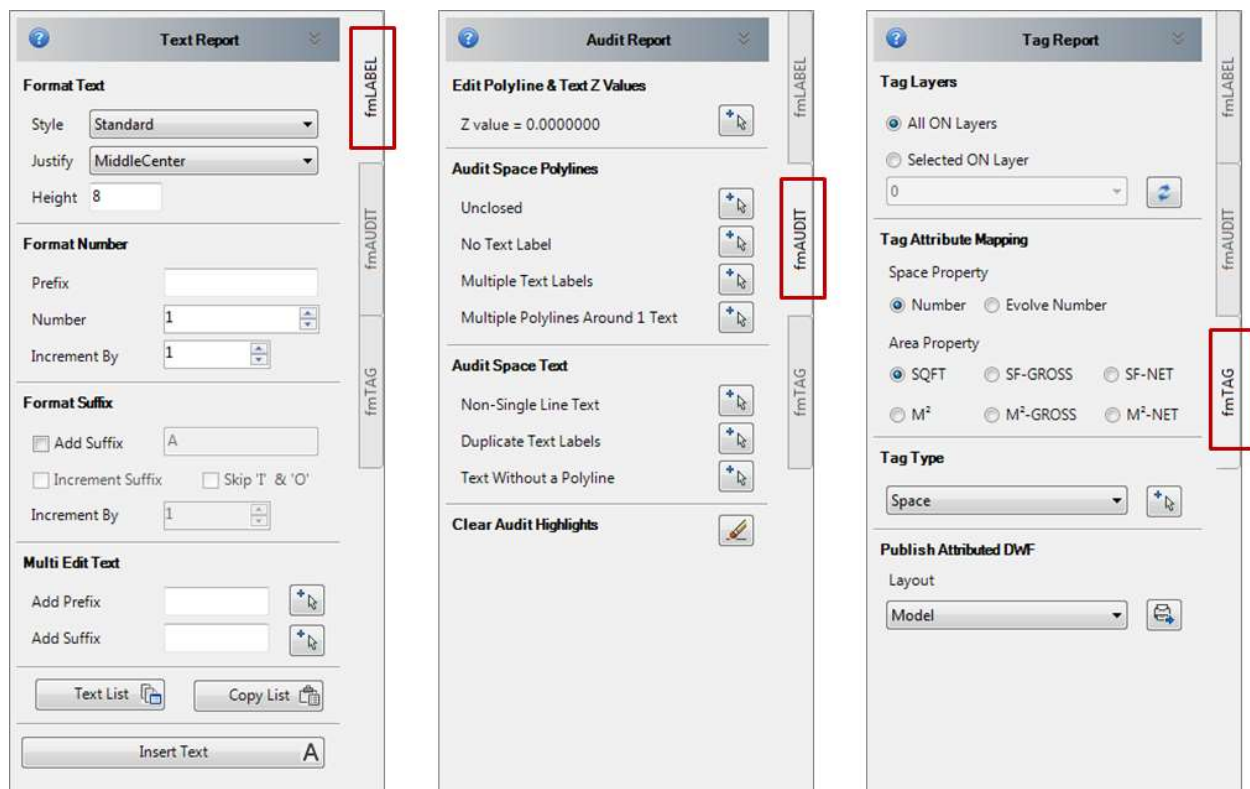
### Displaying the fmTOOLS Palette

When Simple FM Tools is installed in your AutoCAD product the fmTOOLS Palette is added to the AutoCAD Add-In menu ribbon, and also to the AutoCAD application status bar located along the bottom right edge of your AutoCAD application window. Click either icon to open the fmTOOLS palette.

Command Line	Add-In Icon	Status Bar Icon
fmPalette		

### The 3 Tabs

The fmTOOLS palette has three tool tabs, each with its own function controls; fmLABEL, fmAUDIT, and fmTAG.



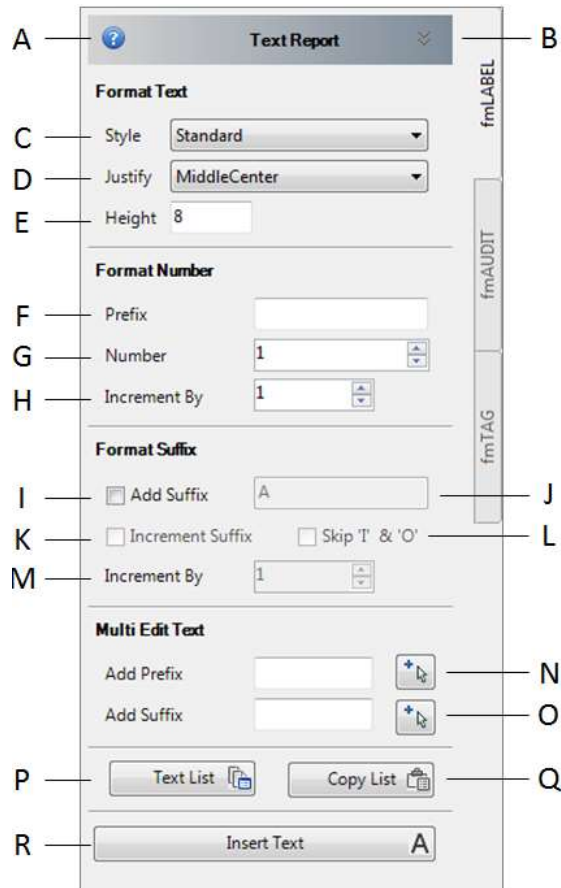
### Dock / Anchor the fmTOOLS Palette

The fmTOOLS palette will dock and anchor in the same manner as a native AutoCAD tool palette. For more information about docking and anchoring tool palettes see your AutoCAD help files.

## fmLABEL™

The fmLABEL tool palette contains AutoCAD text insertion tools.

NOTE: fmLABEL controls are disabled in the unlicensed version of Simple FM Tools.



DESCRIPTION	
A	Displays the online help page when clicked.
B	Expands to display a list of all single-line text shown on the drawing when the Text List button is clicked.
C	Sets the text style to be used during text insertion.
D	Sets the text justification to be used during text insertion.
E	Sets the text height to be used during text insertion.
F	Adds the text entered in the text box as a prefix to the Number during text insertion.
G	Sets the text number to be inserted.
H	Sets the incremental value of the Number. EX: Number 100 with an Increment of 2 produces 100, 102, 104, etc.
I	Activates Suffix insertion. When selected, the suffix text is added to the Number during text insertion.
J	Sets the suffix text to be added to the Number. EX: Suffix text 'A' could produce 100A, 101A, 102A, etc.
K	Activates incremental suffix insertion. When the suffix is set to increment, the Number remains constant while the suffix text value increments. EX: 100A, 100B, 100C, etc.
L	Forces incremental suffix values to skip the letters "I" and "O" which are commonly mistaken for the numbers "1" and "0".
M	Sets the incremental value of the suffix. EX: Suffix "A" incremented by 1 could produce 500A, 500B, 500C, etc. Incremented by 2 could produce 500A, 500C, 500E, etc.
N	Adds the text entered in the text box as a prefix to all selected single-line text objects.
O	Adds the text entered in the text box as a suffix to all selected single-line text objects.
P	Retrieves a list of all text entities displayed on the drawing and populates the Text Report with the list.
Q	Copies the contents of the Text Report to the clipboard. The text list can then be pasted into EXCEL, WORD, or any other document.
R	Begins the text insertion session when clicked. TIP: Press ESC to end the text insertion session.

### Use fmLABEL to:

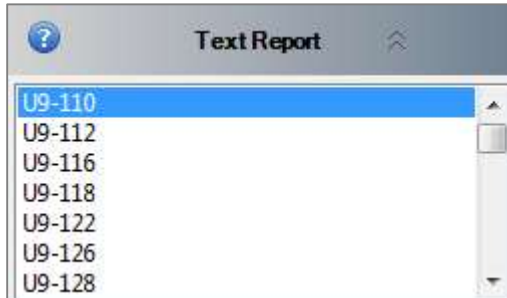
- Sequentially insert numeric text into a drawing.
- Automatically prefix and/or suffix text during text insertion.
- Automatically suffix text sequentially during text insertion.
- Automatically add a prefix to all selected text entities.
- Automatically add a suffix to all selected text entities.
- View, copy, and paste a list of all visible AutoCAD text into any document.

**Press ESC to CANCEL a command.**



## About the Text Report

The Text Report control box expands to display a list of all single-line text visible on the drawing when the Text List button is clicked.



The Text List and the Copy List buttons are used to display the contents of the Text Report and to copy the contents of the Text Report to the clipboard.



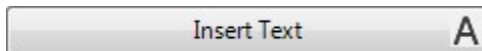
- To display the Text Report, click the Text List button.
- To copy the contents of the Text Report to the clipboard, click the Copy List button.

**NOTE:** When the Text Report is expanded the Text List and Copy List buttons may be hidden by the expanded list. Close the Text Report to expose & click the buttons.

## Inserting Text

### How to insert text:

1. Set your Format Text options.
2. Set your Format Number options.
3. Set your Format Suffix options.
4. Click the Insert Text button & begin inserting text into the drawing.




5. Press ESC to end your text insertion session.
6. Repeat steps 1-5 as needed.

### How to Multi Edit Text:

The Multi Edit Text options provide the ability to add a prefix or a suffix to existing single-line text objects.

1. In the Add Prefix (or Add Suffix) text box, enter the text to be added.

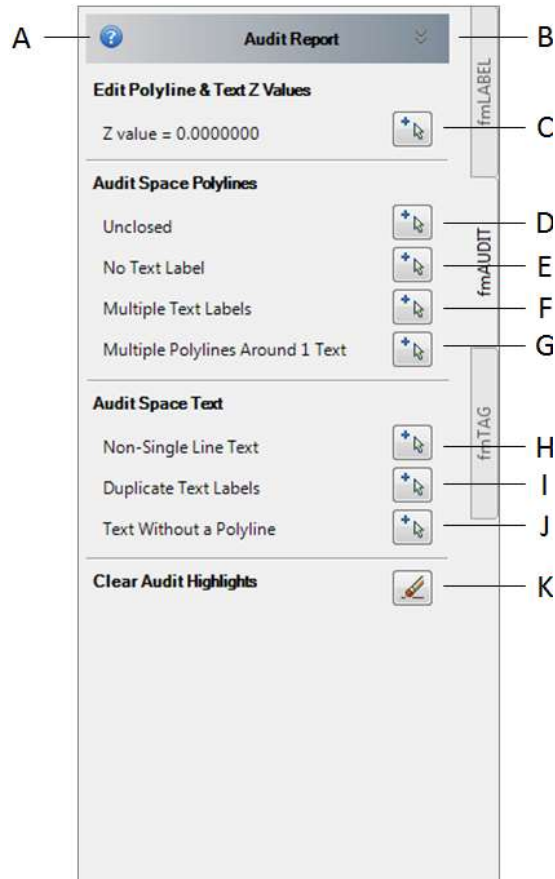
2. Click the Select Text button. 

Select all of the existing single-line text objects on your drawing that will be edited to include the Prefix (or Suffix) text, and then press Enter.

## fmAUDIT™

The fmAUDIT palette contains audit tools that have been designed to identify hard-to-find AutoCAD polyline & text issues known to cause problems in a Computer Aided Facility Management (CAFM) system.

NOTE: fmAUDIT controls are disabled in the Tag-Only-Mode unlicensed version of Simple FM Tools.



### Use fmAUDIT to:

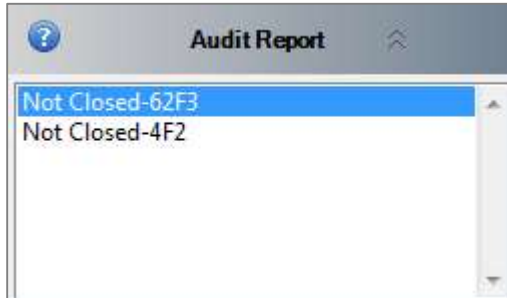
- Improve drawing accuracy when drawings are uploaded to a Computer Aided Facility Management (CAFM) system.
- Improve productivity when preparing drawings for CAFM by eliminating time consuming error detection tasks.

DESCRIPTION	
A	Displays the online help page when clicked.
B	Expands to display drawing errors found during an audit. Click an error in the list and the AutoCAD display will zoom to and highlight the object causing the error.
C	Changes polyline elevation and text alignment "Z" values to 0.0000 for all selected polyline & single-line text objects. (Prerequisite for fmAUDIT objects.)
D	Finds all unclosed polylines.
E	Finds all polylines that do not have a single-line text object within its boundary.
F	Finds polylines that have more than one single-line text object within its boundary.
G	Finds polylines that surround a common single-line text object. EX: Two polylines around one piece of text.
H	Finds text that is not single-line text.
I	Draws a line between single-line text objects that have duplicate text values. NOTE: An "FMERRORS" layer will be created for the error lines.
J	Finds single-line text objects that are not within a polyline boundary.
K	Clears the Audit Report list and all drawing object highlights.

**Press ESC to CANCEL a command.**

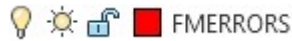
## About the Audit Report

The Audit Report control box expands to display a list of AutoCAD objects that fail a selected audit. When you click an object in the list the AutoCAD display will zoom to and highlight the object causing the error, making it easy to locate each error found.



## About the FMERRORS Layer

When the Duplicate Text audit is performed and duplicate text objects are found, fmAUDIT creates the AutoCAD layer FMERRORS. This layer is used to draw a line between the duplicate text objects when the error is clicked in the Audit Report.



## Auditing a Drawing

### How to audit a drawing:

1. Isolate your polyline & text layers.
2. Click the Z value button, and then select all polylines & text that will be audited. This will change the z value of all selected polylines & text to 0.0000000 (prerequisite for fmAUDIT objects).
3. In the Audit Space Polylines section, click each button to audit all polyline objects visible on the drawing.  
NOTE: If the Audit Report displays errors, click each error in the report to find & fix all errors; rerun the audit to confirm errors have been fixed, and then click the Clear Audit Highlights if needed.
4. In the Audit Space Text section, click each button to audit all text objects visible on the drawing.  
NOTE: If the Audit Report displays errors, click each error in the report to find & fix all errors; rerun the audit to confirm errors have been fixed, and then click the Clear Audit Highlights if needed.

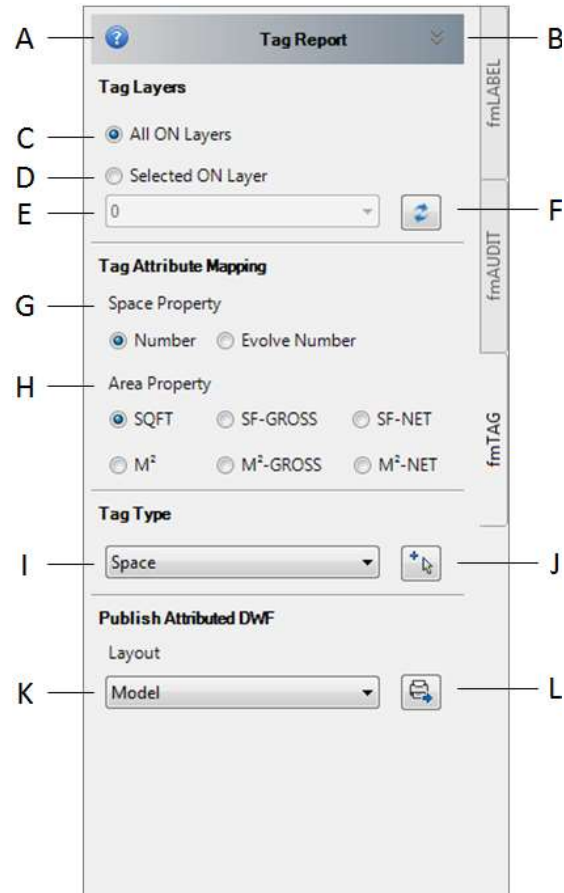
### Problem Solving:

- PROBLEM: Not drawing line between duplicate text objects.
  - ✓ Confirm layer FMERRORS is turned ON
- PROBLEM: Does not recognize polylines and/or text.
  - ✓ Confirm polyline Elevation = 0.000000
  - ✓ Confirm text Alignment Z = 0.000000

## fmTAG™

The fmTAG palette contains custom tools used to tag & publish an attributed DWF file.

NOTE: The Tag Report is disabled in the Tag-Only-Mode unlicensed version of Simple FM Tools.



	DESCRIPTION
A	Displays the online help page when clicked.
B	Expands to display drawing errors found during a post-tag audit. Click an error in the list and the AutoCAD display will zoom to and highlight the object causing the error. NOTE: This feature is disabled in the Tag-Only-Mode unlicensed version of Simple FM Tools.
C	Processes selected polyline & single-line text objects found on all visible AutoCAD layers (default). TIP: Isolate the polyline and text layers to be processed.
D	Processes selected polyline & single-line text objects found on the layer selected in the ON Layer pick list.
E	ON Layer pick list. Displays a selection list of all visible AutoCAD layers.
F	Refreshes the layer list displayed in the ON Layer pick list when clicked.
G	Sets the Space Property tag for the single-line text value found within a polyline boundary.
H	Sets the Area Property tag for the polyline Area value, and also sets the unit calculation method (imperial or Metric) used to calculate the polyline area value.
I	Tag pick list. Sets the tag type to be used on a polyline. <ul style="list-style-type: none"> <li>Space: requires a single-line text object within the polyline boundary. Use this tag to define rooms/spaces on a floor plan.</li> <li>Floor: Does not require a single-line text object within the polyline boundary. Use this tag to define the floor plan's Floor Gross Area polyline.</li> </ul>
J	Tag button. Enters object selection mode when clicked.
K	Layout pick list. Sets the AutoCAD Layout to be published to DWF.
L	Publish button. Produces an attributed DWF file based on the selected layout.

### Use fmTAG to:

- Tag polylines with space number and area data.
- Publish tag data to an attributed DWF file for standalone use or for import into the EvolveFM Computer Aided Facility Management (CAFM) system.

### fmTAG Prerequisites

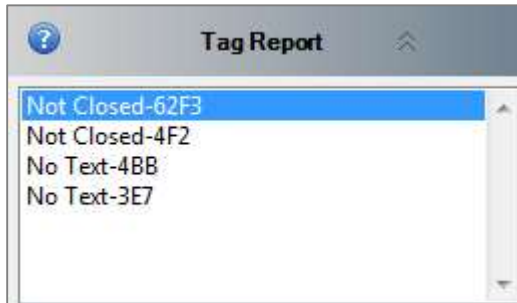
- Polylines must be closed
- No 2D/3D polylines
- Polylines elevation must be = 0.000000
- Text alignment Z must = 0.000000
- Only single-line text is processed
- All text must be completely within a polyline boundary

**Press ESC to CANCEL a command.**

## About the Tag Report

A post-tag audit is performed after the Tag command is used. The audit checks for unclosed polylines and polylines that do not contain a single-line text entity within its boundary; it does not perform all of the fmAUDIT functions. When errors are found during the audit, the Tag Report\* control box expands to display a list of objects that have failed the audit. When you click an object in the list, the AutoCAD display will zoom to and highlight the object causing the error.

\*The Tag Report & post-tag audit are disabled in the Tag-Only-Mode unlicensed version of Simple FM Tools.



## About Tag Attribute Mapping

Tag Attribute Mapping is used to identify a drawing property that will store the polyline text and area values found during the attribute tagging process.

- **Space Property**

Number  Evolve Number

The Space Property attribute is used to store the value of the single-line text found within a polyline boundary during the tagging process. For example, if the text within a polyline boundary is “101” and the attribute “Number” is selected, the polyline is tagged with “Number: 101”, but if the attribute “Evolve Number” is selected, the polyline tag would be “Evolve Number: 101”.

- **Area Property**

SQFT  SF-GROSS  SF-NET  
 M<sup>2</sup>  M<sup>2</sup>-GROSS  M<sup>2</sup>-NET

The Area Property attribute is used to set the unit calculation method to be used on the polyline area value, and to store the resulting value during the tagging process.

- When working in Imperial units use one of the Square Feet attributes: SQFT, SF-GROSS, or SF-NET
- When working in Metric units use one of the Square Meter attributes: M<sup>2</sup>, M<sup>2</sup>-GROSS, or M<sup>2</sup>-NET

For example, if the attribute SQFT is selected, polyline area will be calculated using imperial units, and the value of the calculation, let’s use 40 SF in this example, will be tagged on the polyline as “SQFT: 40”.

## EvolveFM Default Settings

EvolveFM facility management software users can utilize the Tag Attribute Mapping features together with the Attribute Mapping features in EvolveFM to map drawing properties to EvolveFM attributes during the CAFM drawing import process.

IMPORTANT! EvolveFM default attribute mapping is configured as follows:

- Drawing Property “Number” is mapped to the Space attribute “Space ID” in EvolveFM.
- Drawing Property “SQFT” is mapped to the Space attribute “Area” in EvolveFM.
- Drawing Property “SQFT” is mapped to the Floor attribute “Total Area” in EvolveFM.

## About an Attributed DWF

An attributed DWF file contains data associated to the polyline objects that were tagged in AutoCAD. As you move your pointer to hover over a polyline on the DWF file, the polyline tag displays the following information.

- Evolve Handle: [polyline entity handle]
- Object Type: Space
- Evolve Data Type: selected Tag Type
- Space Property: single-line text value found within the polyline boundary
- Area Property: calculated polyline area value

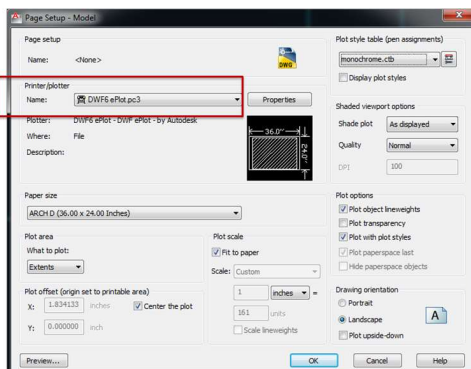
## Tagging & Publishing a Drawing

### How to tag polylines:


1. Choose a Tag Layer option.
  - All ON Layers (TIP: Isolate your polyline & text layers)
  - Selected ON Layer
2. Select your Space Property and your Area Property Tag Attributed Mapping options. IMPORTANT: EvolveFM users who do not use the default settings must configure Evolve Attribute Mapping before importing the DWF file into EvolveFM.
3. Select a Tag Type.
  - Space
  - Floor
4. Click the Tag button and then select the polyline and text objects for tagging.
5. If the Tag Report lists errors, correct the errors and repeat steps 4-5.

### How to publish an Attributed DWF file:


1. Display the AutoCAD Page Setup Manager for the Layout that you want to publish.
2. In the Printer/plotter pick list, select **DWF6ePlot.pc3** (required).



3. Configure the following page setup properties as needed for your DWF file.
  - Paper size (C size or larger is recommended)
  - Plot area
  - Plot Offset
  - Plot scale
  - Plot style
  - Shaded viewport options
  - Plot options
  - Drawing orientation

4. In AutoCAD, turn on the layers you want to show on your DWF file, including your tagged drawing objects.  
IMPORTANT: All layers to be displayed in the DWF file must be set to PLOT  in the AutoCAD Layer Properties Manger.
5. On the fmTAG palette, select the Layout to be published.
6. Click the Publish button.

#### **Publish DWF Problem Solving**

- **PROBLEM:** DWF file is missing object tags.
  - ✓ Audit the drawing to confirm all objects are being found during the tagging process.
- **PROBLEM:** Graphics are not displaying in the DWF file.
  - ✓ Confirm layers are set to PLOT in the AutoCAD Layer Properties Manager.  
IMPORTANT: Layers that have a NO PLOT  symbol will not display in the published DWF file.