

AutoCAD Line and Symbol Plugin

End User's Guide

Hello!

Welcome to the Line and Symbol plugin guide! In this guide, you can review the basic information about the plugin.

What is Line and Symbol?

Line and Symbol (LS) is an AutoCAD plugin written to assist electrical engineers with drawings. This plugin contains commands to draw lines, draw Branchings, and draw electrical symbols. There is also a command to help calculate lighting fixtures.

Commands

There are 3 types of commands that are line drawing commands, lighting calculation command and commands of the symbols for drawing each symbol separately. You can review these commands in this guide.

Line Command

The Line command is used by typing “Mainline” on the command line.

When the “Mainline” command is typed, the current drawing layer will be replaced with the “Line” layer, and when the command is finished, the last selected layer will be switched again.

After using the “Mainline” command, the user will be prompted for a point, this point will be the starting point, and after selecting this point, a second point will be requested. The cable will be drawn from the first selected point to the second point and the length of this cable will determine the distance (offset) between the line to be drawn and the selected walls.

Once the second point is also selected, a wall (horizontal or vertical line) will be prompted until the user presses the “ESC” key. If the selected wall is horizontal, the line will approach vertically, if the wall is vertical, the line will approach horizontally. If the same wall is selected twice, the cable will pass through the wall. After pressing the “ESC” key, the junction box will be placed at the end of the line and the line length will be given.

WARNING: Take the scales into consideration when calculating the length!

Branching Command

Branching command is used by typing “Branching” on the command line.

When the “Branching” command is typed, the current drawing layer will be replaced with the “Branching” layer, and when the command is finished, the last selected layer will be switched again.

After using the “Branching” command, the user will be prompted for a point, this point will be the starting point, after selecting this point, the user will be prompted for either “Illumination” or “Electrical” commands, these commands will activate one of the two modes.

In the “Illumination” mode, the user will be asked to select a point and a lighting fixture. The selected element will be placed by drawing a line from the starting point to the specified point and the cable length will be given, the selected element can be rotated with the “R” or “E” keys. The drawing will continue from the starting point by repeating the point selection and element selection until the “ESC” key is pressed.

In “Electrical” mode, the user will be prompted for a point selection or electrical element selection. If point selection is made, a line will be drawn from the first point to the second point and the cable length will be given. If the element is selected, the point where the element will be placed will be requested. After the point selection is made, the element can be rotated with the “R” or “E” keys. The drawing will continue from the last line point until the “ESC” key is pressed.

WARNING: Take the scales into consideration when calculating the length!

Illuminate Command

The illumination command is used by typing “Illuminate” on the command line.

The illuminate command will prompt you to select 4 points in order. With these selected points, the area calculation will be made and a circle will be placed in the center. The center of this circle is the same as the center of the 4 selected points.

You can calculate the lighting elements (Lux, Lumen, Lightning fixture count, etc.) according to the area calculation, you can place the lights inside the room by referring to the placed circle as the center of the room.

WARNING: Differences in area calculation and center placement may occur due to non - quadrilateral shapes or scaling!

Symbol Commands

There are various electrical and lighting symbols in the plugin content. The commands of these symbols are the same as the names of the symbols.

When using the command, the user will be prompted to select the point where the symbol will be drawn. After the selection, the drawing will be done. Some symbols can be rotated with the “R” or “E” keys.

The symbol list (commands) is as follows:

- Switch
- Sconce
- Armature
- Chandelier
- JunctionBox
- CommutatorSwitch
- Socket