calculate vertical and horizontal polyline

45 REPLIES ✓

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MESSAGE 1 OF 46

waseem2YPVC 213 Views, 45 Replies 30-09-2019 30-09-2019 01:16 PM ☐

✓ calculate vertical and horizontal polyline

Hi Everyone,

I was just wondering if there's any idea or lisp to calculate how many verticals and horizontals I have in my drawings.
layer in the same name. drawn in polyline, its frames for windows but I need to know how many I have frames in my project, verticals to be separated from horizontals, please note that this will be for entire high rise building.
I would appreciate if someone can give me any solutions, as it'll save me of time. if there's lisp program or any command.

best regards,

waseem

✓ Solved by ara_neresesian. Go to Solution.

✓ Solved by Kent1Cooper. Go to Solution.

✓ Solved by CADffm. Go to Solution.

✓ Solved by ara_neresesian. Go to Solution.

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MESSAGE 2 OF 46

pendean in reply to: waseem2YPVC 30-09-2019 01:24 PM ☐

Re: calculate vertical and horizontal polyline

You mean you did not use BLOCKs for your windows at all, you drew each one individually as single plines all floating near each other?

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MESSAGE 3 OF 46

waseem2YPVC in reply to: pendean 30-09-2019 01:32 PM ☐

Re: calculate vertical and horizontal polyline

yes, I haven't use block, because most of the drawings need to be stretched when dimension gets revised by architects.
so I have to use polyline it's easier to stretch also to make the file not heavy.

please see attached example.

regards

TEST.dwg

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MESSAGE 4 OF 46

Alfred.NESWADBA in reply to: waseem2YPVC 30-09-2019 01:38 PM ☐

Re: calculate vertical and horizontal polyline

Hi,

you should have used blocks with scaling.

Using polylines means you need to write a tool that identifies the order of the polyline vertices, then the distances and angles between these vertices and see if that is now horizontal or vertical.

Use a block, best would be 2 different names so you can later use the block names to identify this is a vertical or this is a horizontal one. Scaling of the block then shows the length of the frame ... and using command _DATAEXTRACTION to get your list, without any coding.

- alfred -

Alfred NESWADBA
Ingenieur Studio HOLLAUS ... www.hollaus.at ... blog.hollaus.at ... CDay 2019

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MESSAGE 5 OF 46

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waseem2YPVC in reply to: Alfred.NESWADBA 30-09-2019 01:42 PM ☐

Re: calculate vertical and horizontal polyline

@Alfred.NESWADBA I can't have it as blocks, as I need to stretch windows when sizes change, imagine starching windows for a whole building that contain more than 1000 windows. i thought there's a lisp or command that give me how many vertical and horizontal I have with no sizes just quantities.

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0 LIKES REPLY

MESSAGE 6 OF 46

Alfred.NESWADBA in reply to: waseem2YPVC 30-09-2019 01:58 PM ☐

Re: calculate vertical and horizontal polyline

Hi,

>> I can't have it as blocks, as I need to stretch windows
Then create single polylines with width, then you have 2 points to identify horizontal or vertical and not 4 points.

- alfred -

Alfred NESWADBA
Ingenieur Studio HOLLAUS ... www.hollaus.at ... blog.hollaus.at ... CDay 2019

(not an Autodesk consultant)

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MESSAGE 7 OF 46

Alfred.NESWADBA in reply to: waseem2YPVC 30-09-2019 02:00 PM ☐

Re: calculate vertical and horizontal polyline

Hi,

>> i thought there's a lisp or command that give me how
>> many vertical and horizontal I have with no sizes just quantities.
Of course you might create a lisp, but this needs to do more work than necessary.
AutoCAD does not have an idea about a polyline with 4 vertices if that is horizontal or not.

- alfred -

Alfred NESWADBA
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(not an Autodesk consultant)

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0 LIKES REPLY

MESSAGE 8 OF 46

pendean in reply to: waseem2YPVC 30-09-2019 02:06 PM ☐

Re: calculate vertical and horizontal polyline

That's a short sighted need that help only you but no one else.

You still need to know quantities of each window size for installation: you giving the manufacturer a list of verticals and horizontals is only part of the Window order. someone somewhere need to identify which combos go where. So now you are back to blocks.

Post a picture of one elevation of your building, lets show you how it is correctly done in the AEC industry as a standard.

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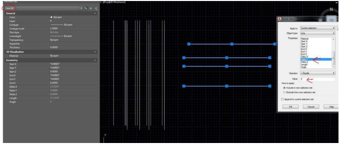
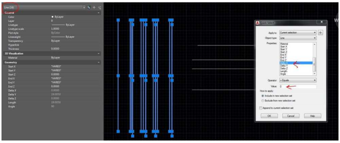
MESSAGE 9 OF 46

ara_neresesian in reply to: waseem2YPVC 30-09-2019 03:56 PM ☐

Re: calculate vertical and horizontal polyline

Hi
its very easy for line if you can explode them temporary to line calculate the numbers and then undo its
1-you can do by autolisp
2- quick select
see attached pictures by 2 way.





by the way this is a sample for line , using an auto lisp will be very easy , with small lisp you will have a report from all lines
if you need to use this routine every time ,its more better to load a lisp file.
just attache one small sample of your jobs includes the results , (just to see what layer shod be calculate ...)i will write a lisp file to help you.
good luck

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1 LIKE REPLY

MESSAGE 10 OF 46

⑦ waseem2YPVC in reply to: ⑬ pendean 01-10-2019 05:32 AM

Re: calculate vertical and horizontal polyline

@pendean see attached Cad file of one elevation

thanks.

TEST.dwg

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0 LIKES REPLY

MESSAGE 11 OF 46

⑦ waseem2YPVC in reply to: ⑧ ara_neresesian 01-10-2019 05:33 AM

Re: calculate vertical and horizontal polyline

@ara_neresesian I can't explode them. that's will make by job harder instead of faster.

thanks

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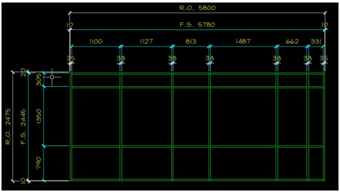
0 LIKES REPLY

MESSAGE 12 OF 46

⑬ pendean in reply to: ⑦ waseem2YPVC 01-10-2019 06:09 AM

Re: calculate vertical and horizontal polyline

Forgive me, but the info you want is already listed, you just need to harvest the dimensions?



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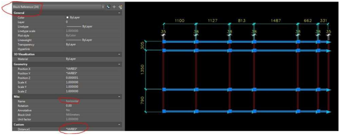
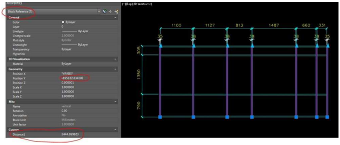
MESSAGE 13 OF 46

⑧ ara_neresesian in reply to: ⑦ waseem2YPVC 01-10-2019 01:49 PM

Re: calculate vertical and horizontal polyline

Hi
if you can use ano. block,it will be very helpful for you.'just select one of hor or ver ano. blocks and select similar,
see attached pictures
but if you cant change those double polylines to Lines or block ,then for sure you have use a spacial lisp file to calculate and harvest information (it may be a large autolisp process)
i am attaching





cad file also see maybe it can change your mind.

block.dwg

Tags: Calculate similar block Report

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MESSAGE 14 OF 46

⑦ waseem2YPVC in reply to: ⑧ ara_neresesian 02-10-2019 05:38 AM

Re: calculate vertical and horizontal polyline

@ara_neresesian thank you, this is good but the problem is I can't stretch it, so imagine when there's changes for the whole building it'll take me a while to drag the mullion instead of stretch it to get the right sizes.

but thanks for making me these blocks. seems there's no way that Cad will know vertical from horizontal.

regards,

waseem

Add tags Report

0 LIKES REPLY

MESSAGE 15 OF 46

9 SeeMSixty7 in reply to: 7 waseem2YPVC 02-10-2019 06:08 AM ☐

Re: calculate vertical and horizontal polyline

I agree with @pendean you should probably look at your work process and re-evaluate that way things are being done. The line work you show in your drawing are not windows but outlines where windows could go between support members. Are you wanting to know the number of support members, number of windows, number of rubber seals, number of ...?

One solution I could suggest to you (other than take a look at using Revit) is utilize a layer specifically for the windows, use BPOLY to generate the window in each hole (where a window would go) and then those plines are stored specifically on that layer. They would easily stretch with your edits, could easily be counted or summarized, provide separation of supports and actual window, provide a means to measure those windows and isolate them.

If you wanted to automate the process you could create an AutoLISP routine to generate them with some creative filters to avoid being generated in the support pline areas.

Good luck,

Visit my blog
http://www.seemsixty7.com/blog/

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MESSAGE 16 OF 46

8 ara_neresesian in reply to: 7 waseem2YPVC 02-10-2019 01:19 PM ☐

Re: calculate vertical and horizontal polyline

Hi
You welcome,
Yes you are right.The autocad core cannot select those poly lines with your way,
but with auto lisp its possible to select and report.
because on each polyline you have delta x and delta y and total length and.....
good luck

Add tags Report

0 LIKES REPLY

MESSAGE 17 OF 46

7 waseem2YPVC in reply to: 8 ara_neresesian 02-10-2019 01:22 PM ☐

Re: calculate vertical and horizontal polyline

@ara_neresesian is there a way to make me this autolisp so I can use it for my projects?

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0 LIKES REPLY

MESSAGE 18 OF 46

8 ara_neresesian in reply to: 7 waseem2YPVC 02-10-2019 04:59 PM ☐

Re: calculate vertical and horizontal polyline

hi
yes its %100 possible with this kind of drawings.
but to be sure please send me the most complicated frame you have ,
i have to see every possibility (like different width of beam (35 , 38)not aligned horizontal elements , not equal in vertical length elements or ....
do you have an angle eleman?
do you have an arch?
.
.
.
.
.
in autolisp we have to care about all possibility's and conditions.
good luck

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MESSAGE 19 OF 46

7 waseem2YPVC in reply to: 8 ara_neresesian 03-10-2019 07:04 AM ☐

Re: calculate vertical and horizontal polyline

@ara_neresesian

Hi Ara,

please see attached Cad file for different windows. each project we have different height and width so I can't attach everything as I don't know what will be the height for our upcoming projects.

35 & 38 are window frames, you will notice that usually our drawings starts with 35 and ends with 35.

for an angle we usually use corner. attached is showing that.

arch. we have but is very rear so I won't attach it.

please let me know if you need more information.

regards,

waseem

TEST.dwg

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MESSAGE 20 OF 46

8 ara_neresesian in reply to: 7 waseem2YPVC 03-10-2019 03:32 PM ☐

Re: calculate vertical and horizontal polyline

Hi
I get what i need .
its possible to do it
it will take time, but no worry i am going to do it.
and i will start to figuring the algorithm.
i will inform you for next step.
good luck

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