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HOW TO INSTALL KATAPRO

Name	Size
..	
 20180604-Kata8.0.1 (for cad2007-cad2012).msi ①	2.361.344
 Up to cad2013-cad2018.exe ②	1.496.939

- ① Install for autocad version 2007 to 2010
- ② With autocad bigger 2012, install more **Up to cad 2013-2018**

After finish installation, in Autocad type command AP to load file “**Goi lenh.lsp**” at folder location: **C:\Kata_pro**

KATA_User Interface



General information setup

Create new bar in Kata

Create bar mark

Create link between bar and dimension and text

Edit bar mark, diameter...

Update bar information

Copy link to avoid a bar link to many dimension


Delete link

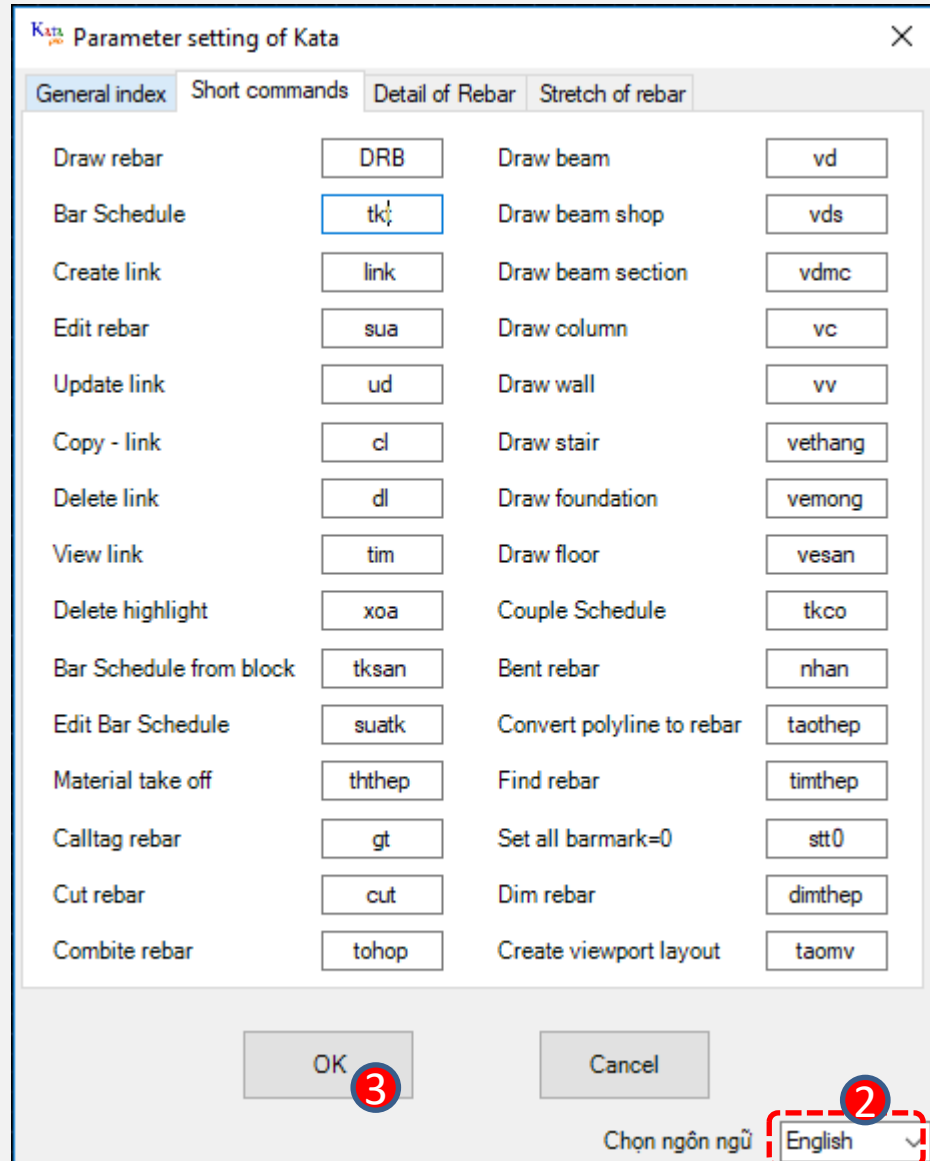
Cut bar

Find link


Delete highlight

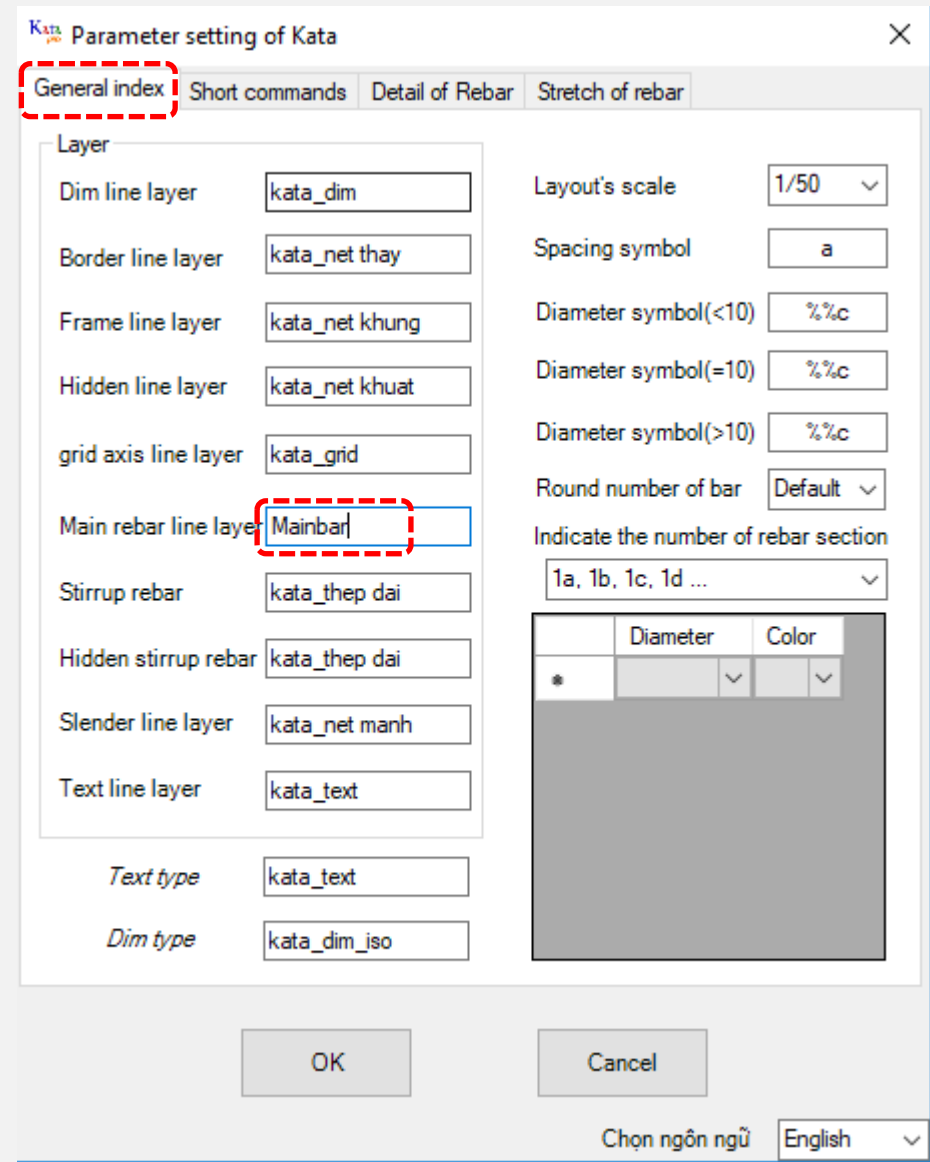
HOW TO CHANGE LANGUAGE

- 1 Click  (setupkata)
- 2 Select English
- 3 Click OK




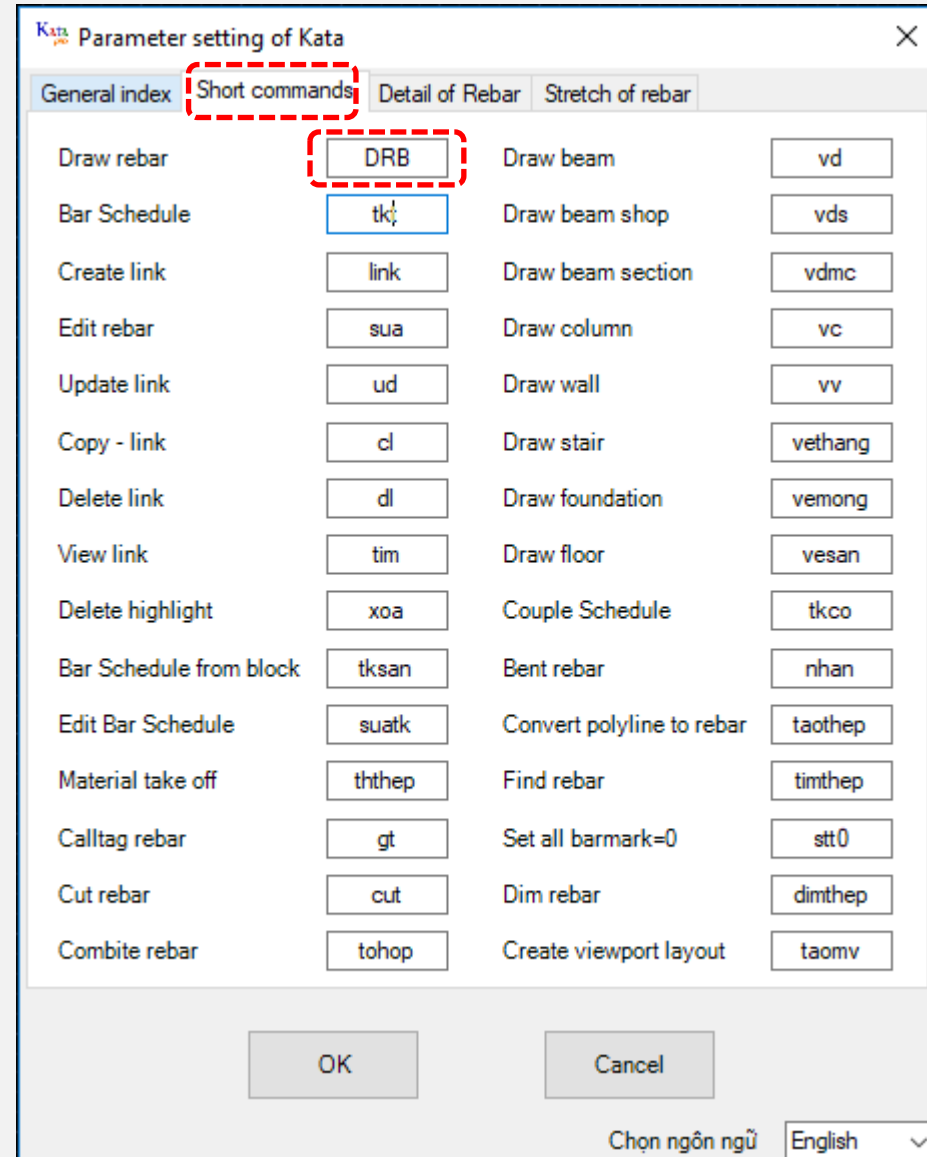
HOW TO CHANGE LAYER

- In folder C:\Kata_pro, select Iso_Kata.dwg and create new layer that you want to use
- Click  (setupkata) and go to general index
- Change the layer name same as the the layer created in iso_kata.dwg
- Example: change layer main rebar: “Mainbar”




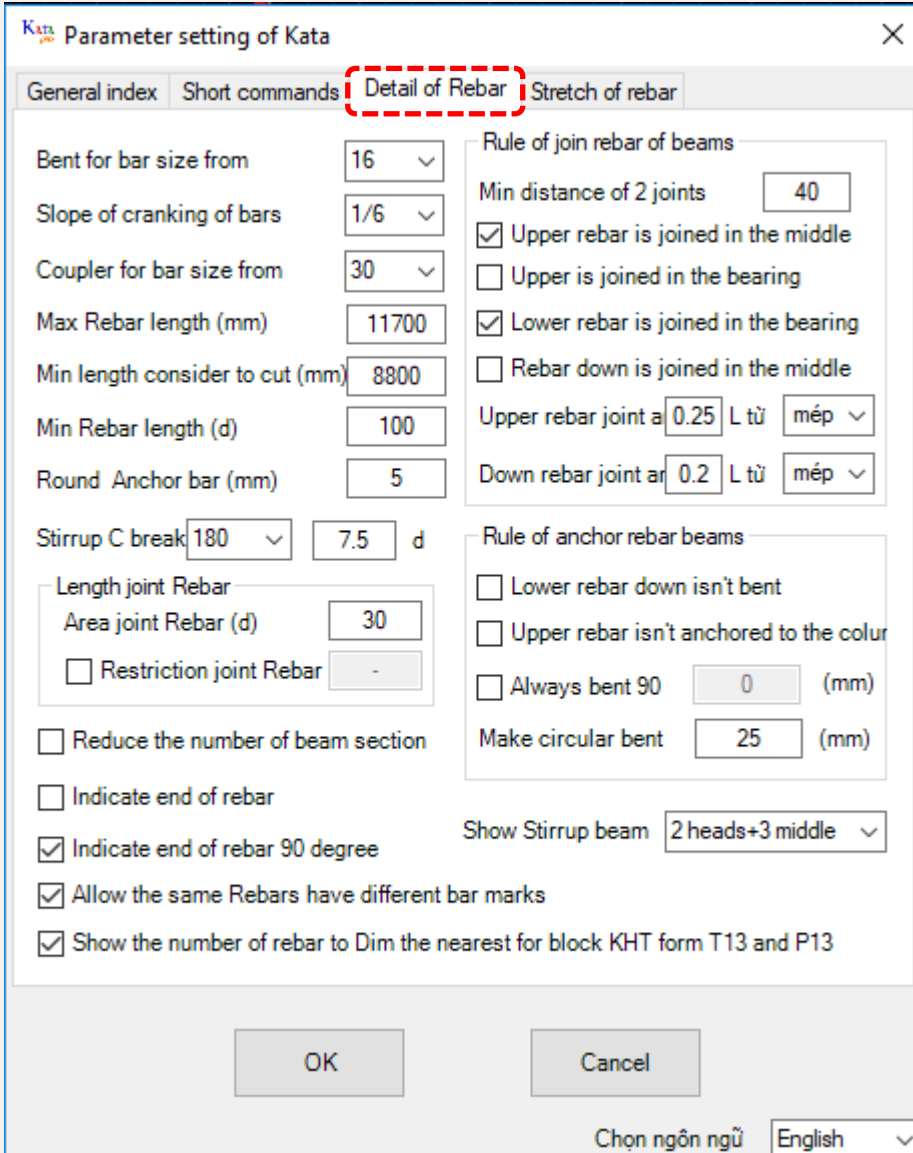
HOW TO CHANGE COMMAND SHORCUT KEY

- Click  (setupkata) to see this table
- Select Short command tab
- Change the word that you want to use command in autocad.
- Example: change Draw bar by command “DRB” as the photo



HOW TO CHANGE REBAR PARAMETERS

- Click  (setupkata)
- Select Detail Rebar tab
- Example: Change max rebar length to 12000mm



Parameter setting of Kata

General index Short commands **Detail of Rebar** Stretch of rebar

Bent for bar size from 16

Slope of cranking of bars 1/6

Coupler for bar size from 30

Max Rebar length (mm) 11700

Min length consider to cut (mm) 8800

Min Rebar length (d) 100

Round Anchor bar (mm) 5

Stirrup C break 180 7.5 d

Length joint Rebar

Area joint Rebar (d) 30

Restriction joint Rebar -

Reduce the number of beam section

Indicate end of rebar

Indicate end of rebar 90 degree

Allow the same Rebars have different bar marks

Show the number of rebar to Dim the nearest for block KHT form T13 and P13

Rule of join rebar of beams

Min distance of 2 joints 40

Upper rebar is joined in the middle

Upper is joined in the bearing

Lower rebar is joined in the bearing

Rebar down is joined in the middle

Upper rebar joint a 0.25 L từ mép

Down rebar joint a 0.2 L từ mép

Rule of anchor rebar beams

Lower rebar down isn't bent

Upper rebar isn't anchored to the colour

Always bent 90 0 (mm)


Make circular bent 25 (mm)

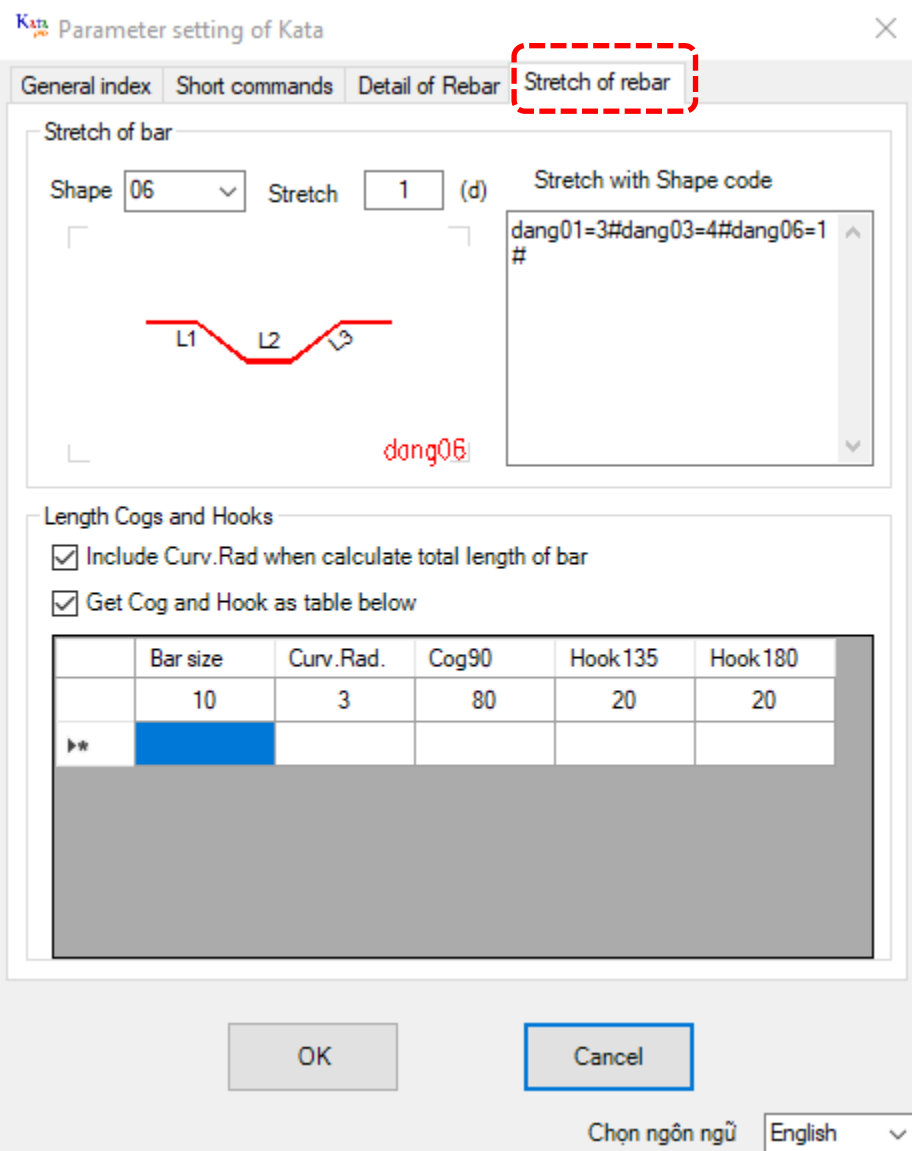
Show Stirrup beam 2 heads+3 middle

OK Cancel

Chọn ngôn ngữ English

HOW TO CHANGE BENDING TOTAL BAR AS EUROCODE, ACI CODE

- Click  (setupkata)
- Select stretch of rebar tab
- Change total bar length follow as ACI or Euro code ...



Parameter setting of Kata

General index Short commands Detail of Rebar **Stretch of rebar**

Stretch of bar

Shape Stretch (d) Stretch with Shape code

dang01=3#dang03=4#dang06=1#

L1 L2 L3

dang06

Length Cogs and Hooks

Include Curv.Rad when calculate total length of bar

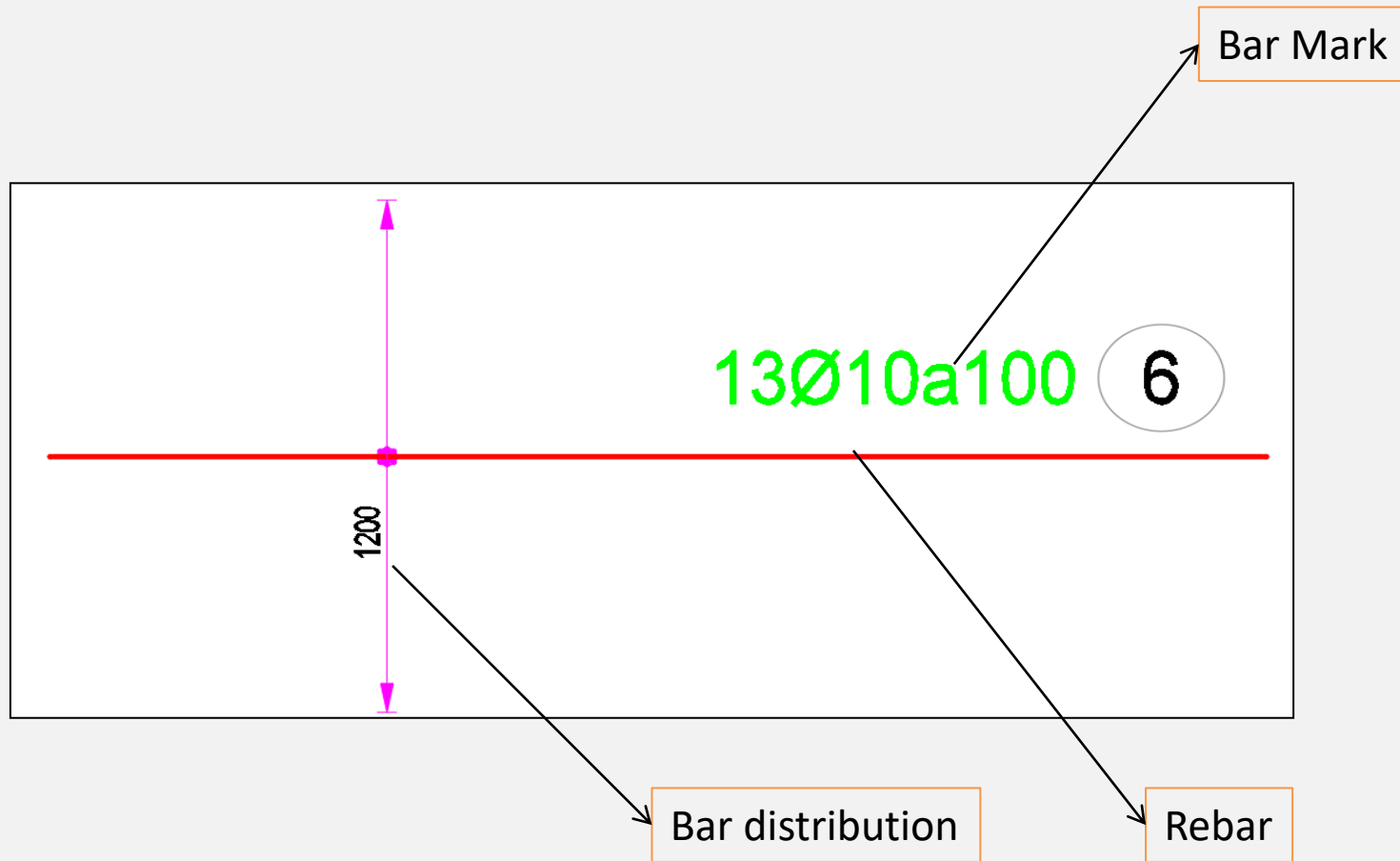
Get Cog and Hook as table below

	Bar size	Curv.Rad.	Cog90	Hook 135	Hook 180
	10	3	80	20	20
▶*					

OK Cancel


Chọn ngôn ngữ English

KATAPRO OBJECT



✓ Katapro Object


CREATE REBAR

- Click  to insert a new Rebar
- Select bar shape code that you want to do
- Type bar diameter, quantity, distance, bar segment dimension
- Click Draw bar

Kata Rebar Information ✕

Shape code

- 00
- 01
- 02
- 03
- 04**
- 05
- 06
- 07



Dimension

L1

L2

L3

Parameter of Rebar

Bar mark (sh) Diameter (dk)

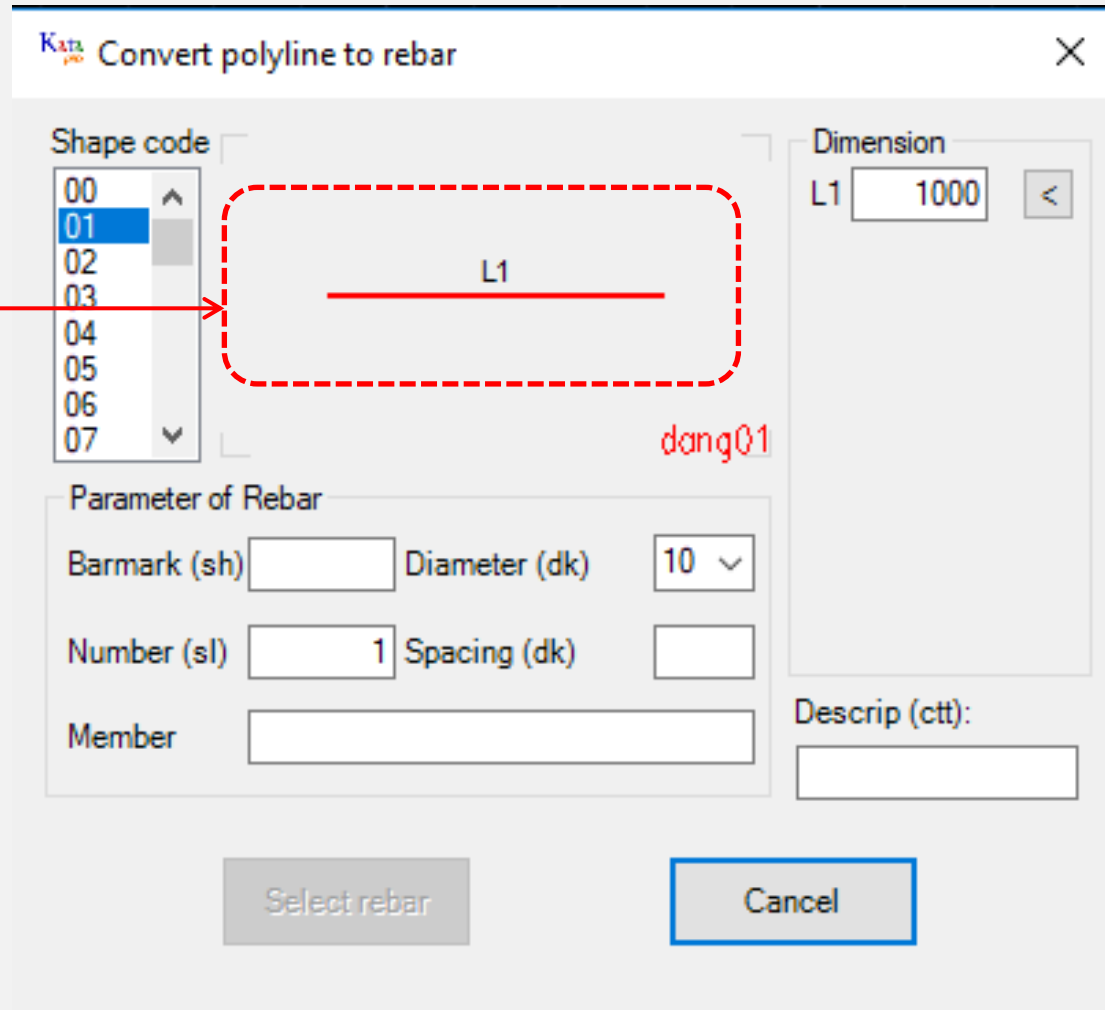
Number (sl) Spacing (dk)

Member


Descrip (ctt):

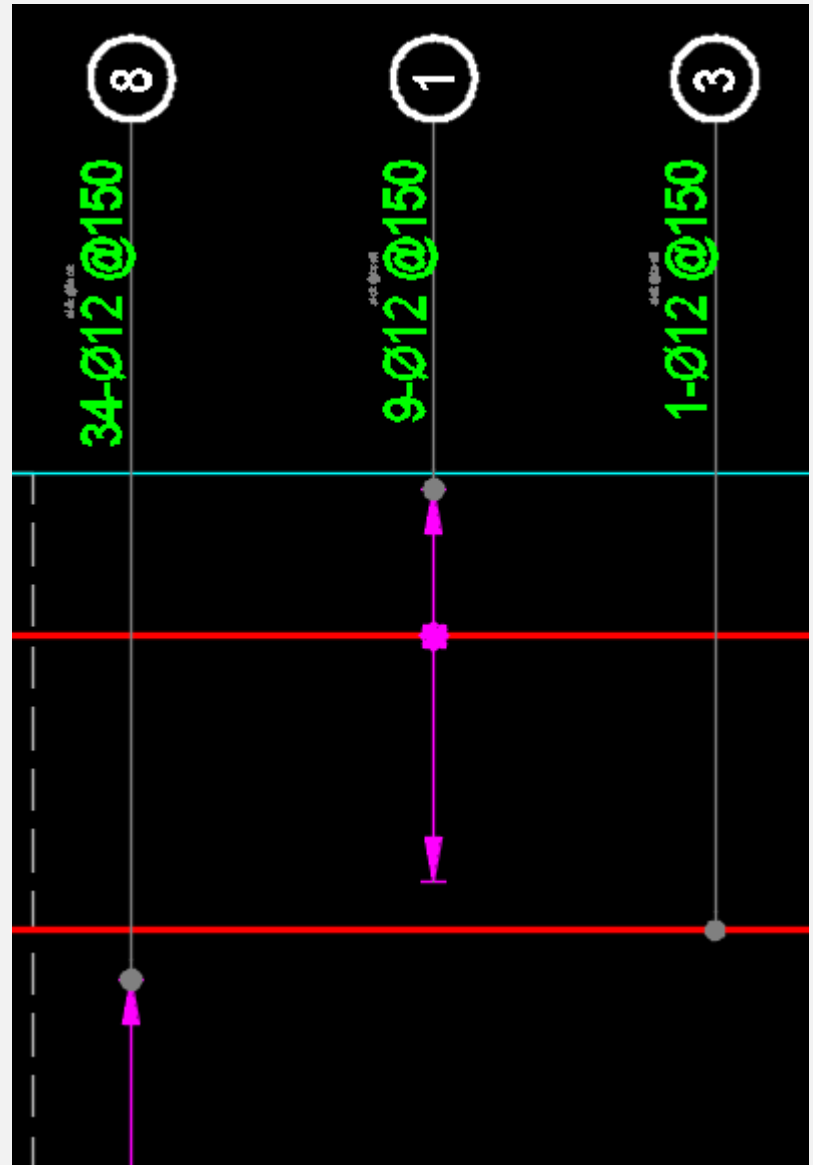
POLYLINE TO REBAR

- Draw any polyline
- Type “taothep” command (changed command in general setup) and put bar diameter, quantity, distance.
- Select this area and select polylines that you want they become to rebar.
- **Note:** Select shape code 00 for the complex bar shape




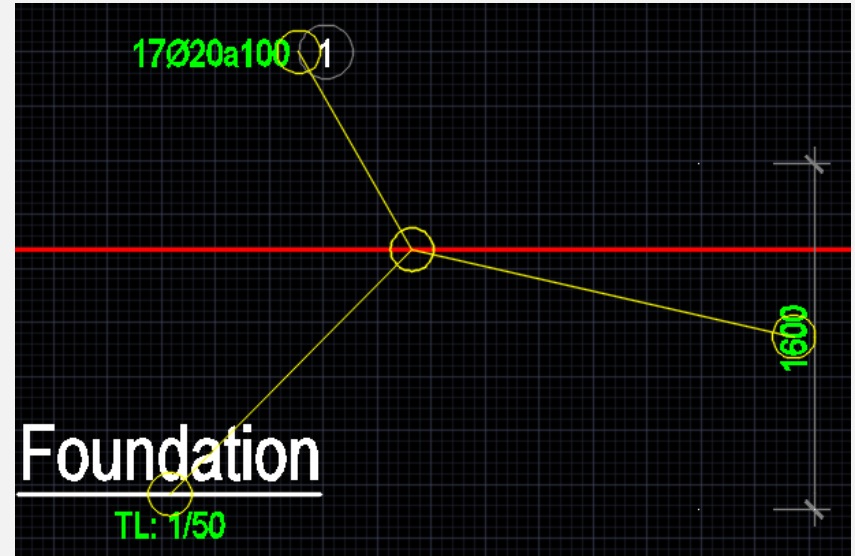
CALL TAG REBAR

- Click  (gta) to call tag for rebar




LINK REBAR WITH DIMENSION, TEXT AND MORE TAG

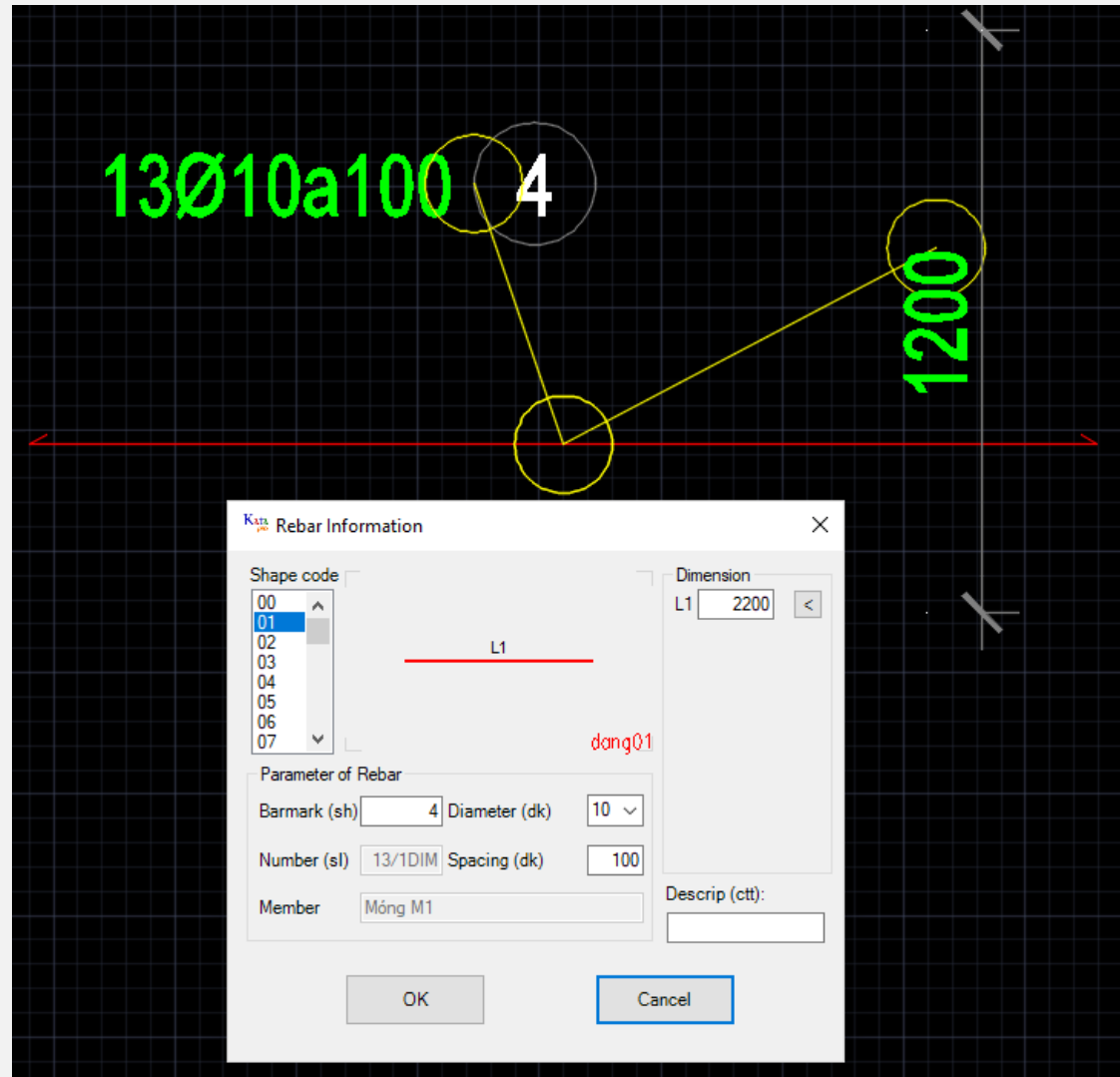
- Click  (link) to link rebar with dimension and text
- Select bar and bar mark or dimension
- After finished selection, highlighted guideline will appearance
- Double click to rebar to check, now rebar have received information from dimension and bar mark




BAR SCHEDULE									
NAME MEMBER	BAR MARK	SHAPE & DIMENSION (mm)	DIA (mm)	LENGTH 1 REBAR (mm)	No. OF Mbrs	Number		TOTAL LENGTH (m)	TOTAL WEIGHT (kg)
						in Each	in All		
Foundation	1	8225	20	8165	1	17	17	138,8	342,85

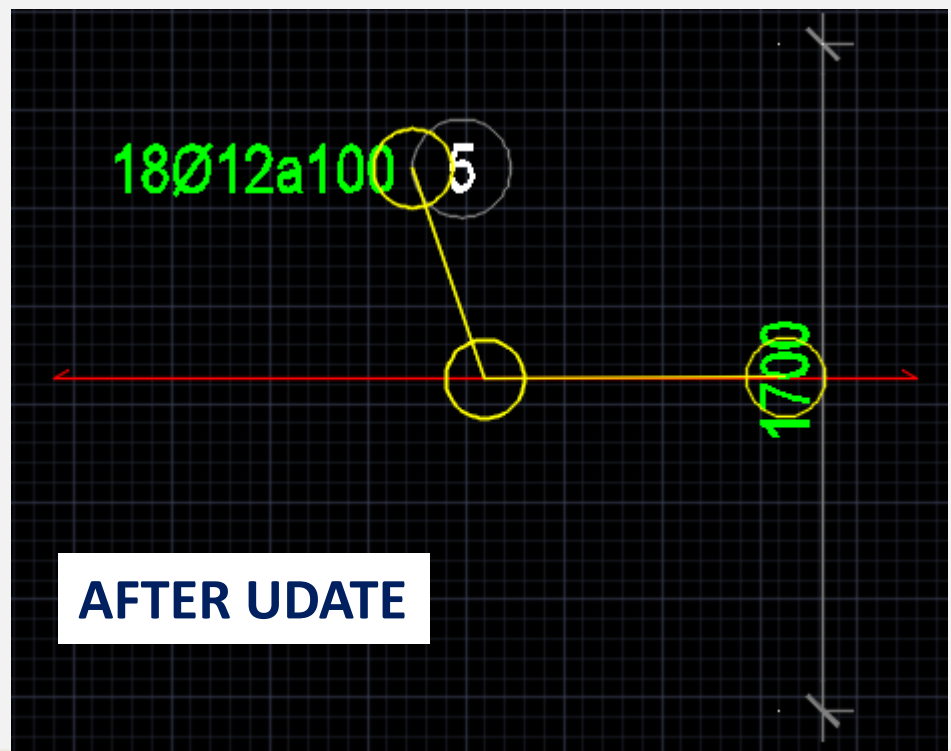
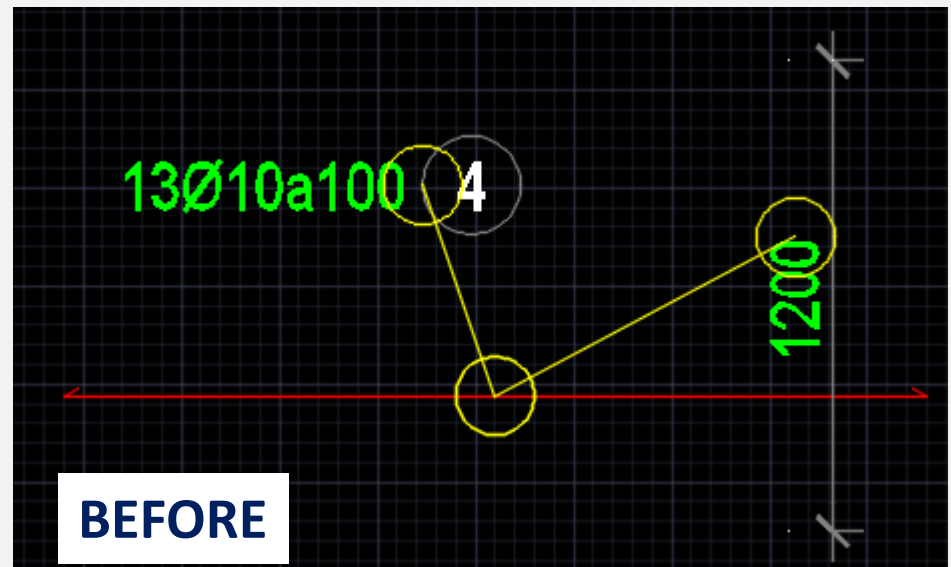
EDIT BAR MARK AND BAR INFORMATION

- Click  or double click on the rebar and change rebar informations
- Click OK then all bars in drawing automatic updated




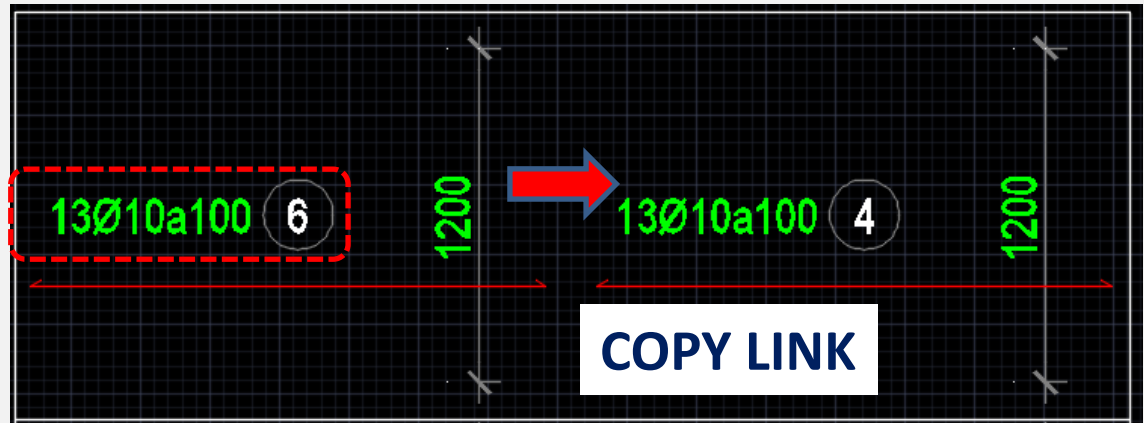
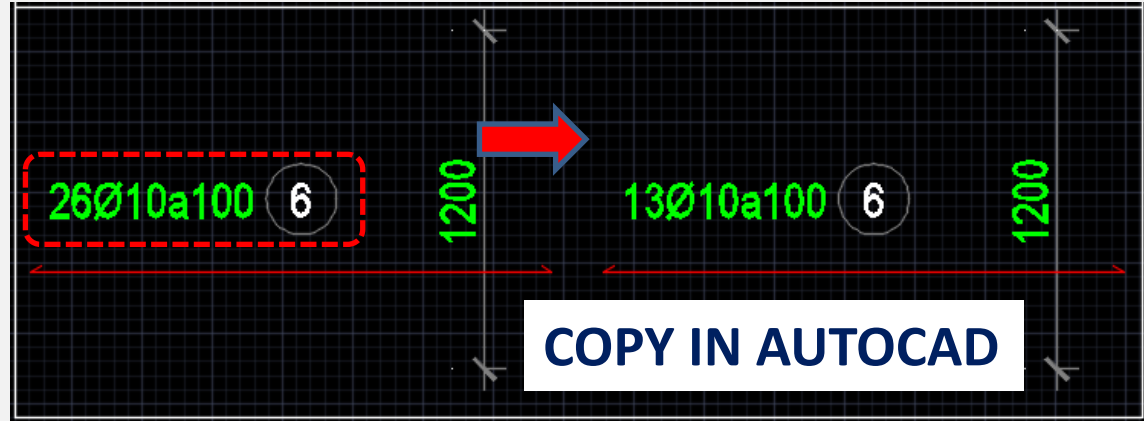
UPDATE BAR INFORMATION

- When you link rebar to dimensions or bar mark then change them again, you need to update to bar received latest information.
- Click  or (UD command).
- Select bar and click OK




COPY LINK REBAR


- When you use copy command in autocad to copy a bar in katapro, quantity of bar will become double
- When you use “copy link” command to copy a bar in katapro, bar object will become new one
- Click  (CL command) to copy bar object to a new one

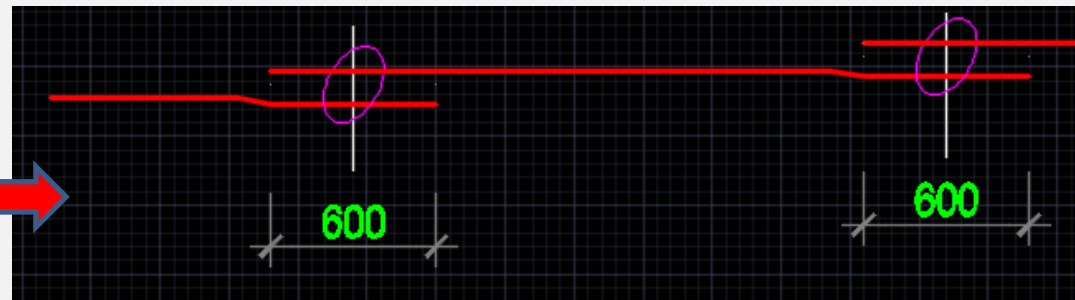
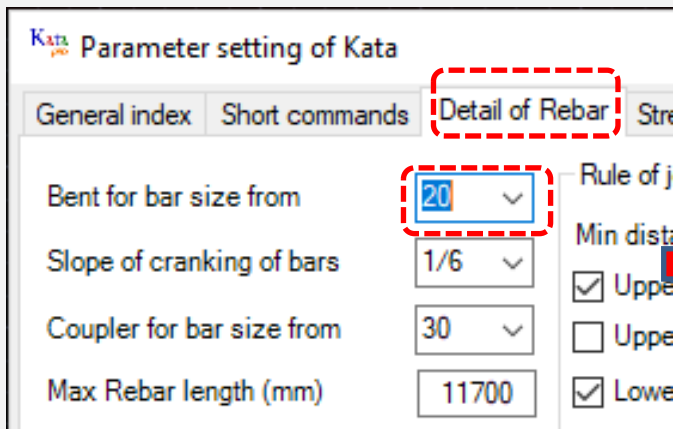
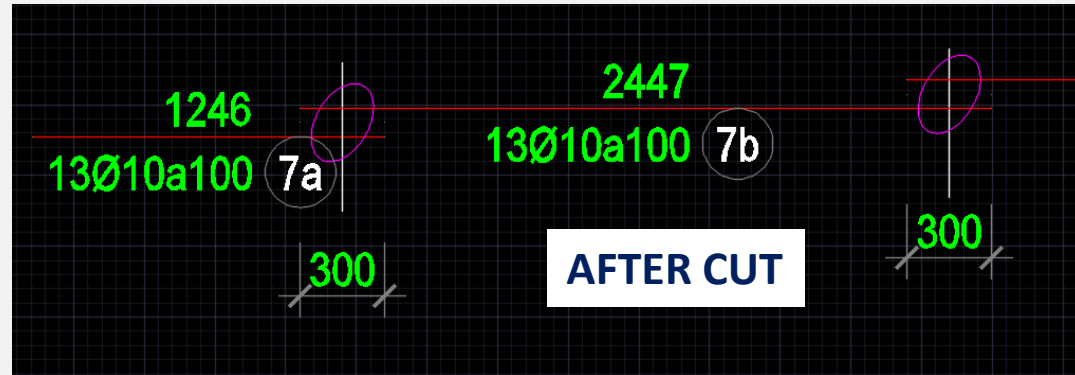


DELETE LINK BAR INFORMATION

- When a bar link to many dimension and text that you can not control them. You want delete all these links.
- Click 
- Select bar and enter

CUT BAR

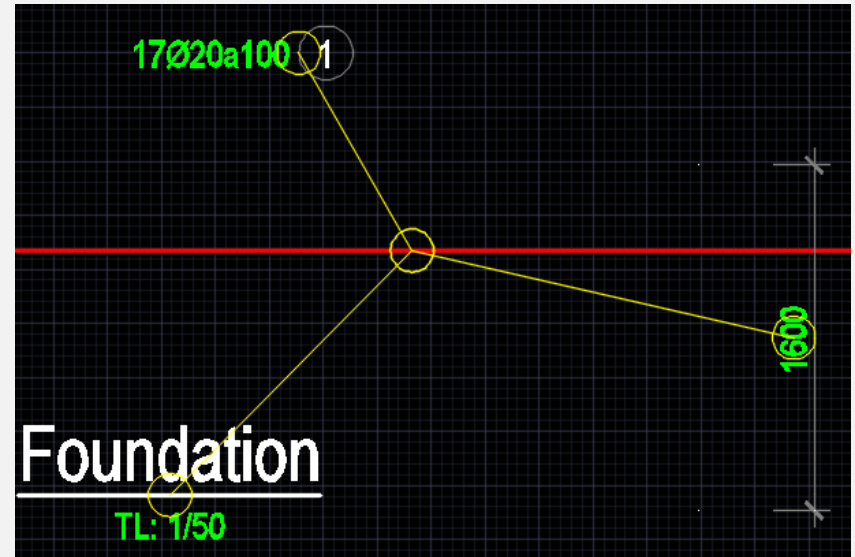
- When a bar too long then you want to cut to small segment
- Click 
- Select bar and lines that cross to bar
- **Note:** If bar diameter > value that you set in “Bent for bar size from:” then bar will bent when you cut



SHOW AND DELETE HIGHLIGHTED LINK



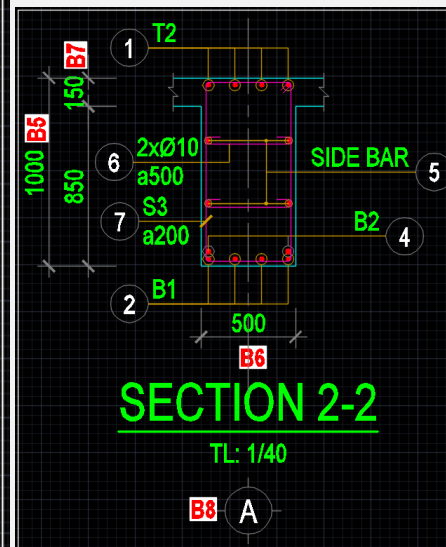
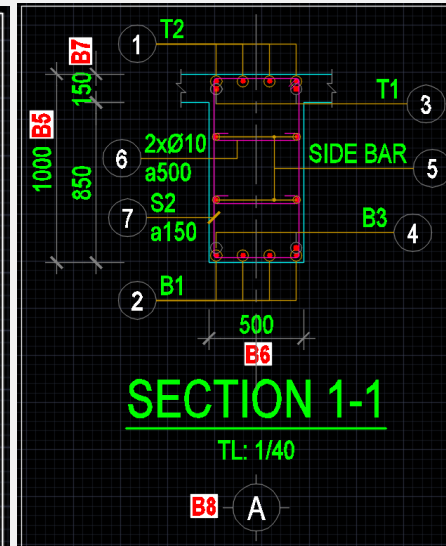
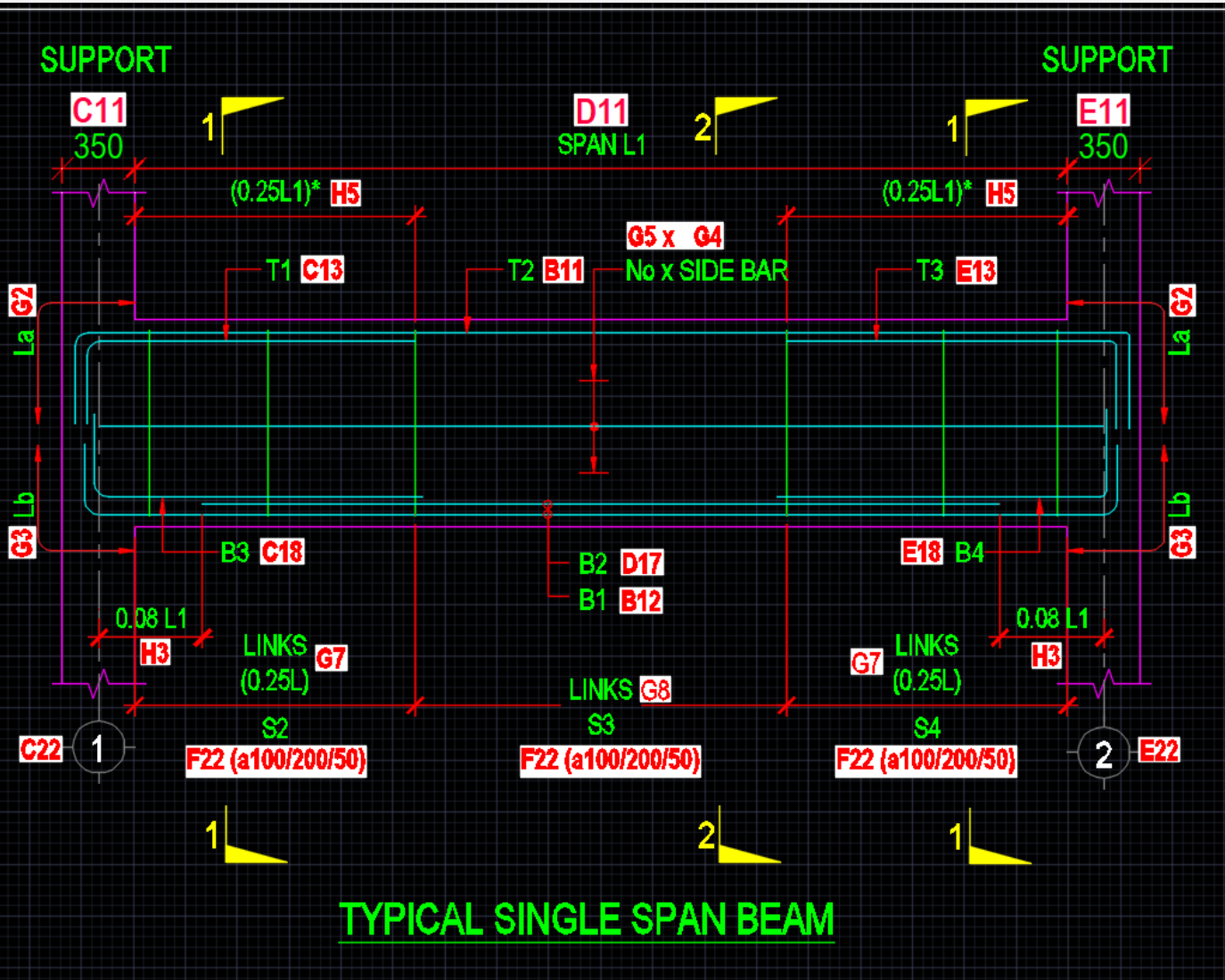
- Click
- Select rebar that you want to see highlighted link



BAR SCHEDULE									
NAME MEMBER	BAR MARK	SHAPE & DIMENSION (mm)	DIA (mm)	LENGTH 1 REBAR (mm)	No. OF Mbrs	Number		TOTAL LENGTH (m)	TOTAL WEIGHT (kg)
						in Each	in All		
Foundation	1	8225	20	8165	1	17	17	138,8	342,85

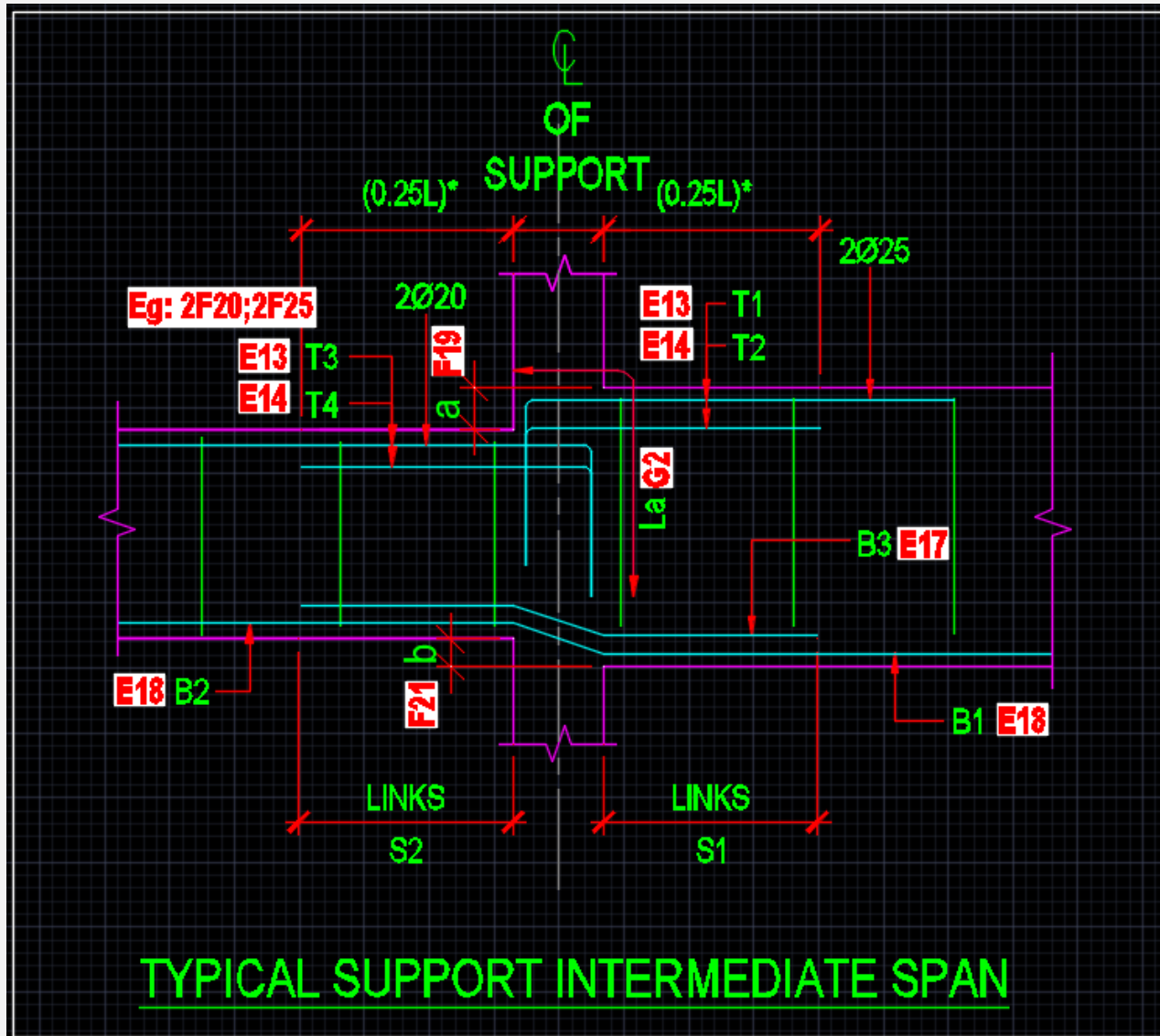
CREATE BEAM AUTOMATIC

- The value in this typical detail is same as with excel file



CREATE BEAM AUTOMATIC

- The value in this typical detail is same as with excel file



CREATE BEAM AUTOMATIC

- Open Excel file, go to to sheet “beam” and fill enough information as follow:

12	A	B	C	D	E	F	G	H	I	J	K	
1	Longitudinal section scale	1:50	<div style="border: 1px solid blue; padding: 5px; margin-bottom: 5px;">Load data 2</div> <div style="border: 1px solid blue; padding: 5px; margin-bottom: 5px;">Save data 3</div> <div style="border: 1px solid blue; padding: 5px;">Get length 4</div>		Length of between additional	500	<div style="border: 1px solid blue; padding: 5px; margin-bottom: 5px;"> Length of additional bottom bar to support <input type="checkbox"/> extend beam depth with additional top bar 0,2 L from edge of support </div> <div style="border: 1px solid blue; padding: 5px; margin-bottom: 5px;"> Length of additional top bar to support 0,25 L from edge of flat beam </div> <div style="border: 1px solid blue; padding: 5px;"> Additional Stirrup Spacing <input checked="" type="radio"/> Normal a500 <input type="radio"/> Same as main stirrup spacing </div> <p>Cover mainbars/ stirrup 50/25</p>					
2	Cross section scale	1:40				Top bar length to support (c)		40				
3	Beam Mark	B01				Bottom bar length to support		30				
4	Quantity	1				Side bar diameter		12				
5	Beam Depth (mm)	1000				No of side bar		3x4				
6	Beam Width (mm)	500				Stirrur bar diameter (mm)		10	25			
7	Slab thickness (mm)	150				Main stirrup spacing		Support	a150			
8	Axis					Span		a200				
9	Eccentric axis	-100				Cantilever		150				
10	Elevation	+3.300	Support	Span	Support	Span	Support	Span	Support	Span	Support	
11	Top main Bar	4f16	400	6200	400	6000	400	6000	400	6000	400	
12	Bottom main Bar	4f16										
13	Additional top bars	Layer 1	2f20	-	2f20	2f20;2f25	2f20	2f20	2f20	2f20	2f20	
14		Layer 2	2f20	2f20	2f20	2f20	2f20	2f20	2f20	2f20	2f20	
17	Additional bottom bars	Layer 2	2f20									
18		Layer 1	2f20									
19	Beam raise up; main bars		0	A	100;5f25	500;100	B	0	500;100	H		
20	Beam width at gridline		400	9	400	C	2f12	400	G	600	500	
21	Eccentricity between intersected be			D	-100;5f20		0		500			
22	Column axis name		1		2	E	a100/200/50	3	4			
23	Eccentricity of axis to column centro		0	F	a100/200/50		0		0			
24												
25	Stirrur C		2	I	Stirrur U		J	Stirrur □		K		
26	Stirrur C		3									
27												
28												
29												
30												
31												
32												

BEAM INFORMATION 1

- ① **Add bar layer 3th**
- ② **Load data:** load beam geometry and bar information from “save infor”
- ③ **Save data:** save beam information to sheet “save infor”
- ④ **Getlength:** get length of beam from beam structural plan on autocad
- ⑤ **No of side bar:**
 - put “- “ to not show transverser side bar
 - put 1 same as 1 side bar
 - put 3x4 same as 4 layer and 3 side bar
- ⑥ **Put 25 same as Ø25 between 2 bar layer**
- ⑦ **Additional Bar go through:**
 - put – same as additional bar go through of beam from left to right
- ⑧ **Additional bar difference of left and right support:**
 - put 2f20;2f25 same as bar left support is 2f20, bar right support is 2f25
- ⑨ **Bar anchor to edge of support:**
 - put 400 same as beam width 400
 - put -400 same as bar anchor to edge of beam

BEAM INFORMATION 2

A Raise up of beam:

- put **100,5f25** same as raise up the edge of beam 100m, additional top bar is 5f25

B Width of upper support:

- put **0** same as do not have upper support
- put **400** same as upper width column is 400

- put **500;100** same as width of upper column differ the left edge of below column is 100

C Side bar: - put **2f12** side bar at span is 2f12

D Drop up of beam:

- put **100** same as the edge of bottom beam drop to 100
- put **-100** same as the edge of bottom beam raise up 100
- put **-100;5f20** same as the edge of bottom beam raise up 100 and bottom additional bar change to 5f20

E Spacing of main stirrup : - put a100/a200/a50 same as main stirrup at span

F Spacing of additional stirrup (stirrup C, U): - put a100/a200/a50 same as main stirrup at span

G Change of width of beam of different span:

- put **500** same as the width of beam change to 500

BEAM ADDITIONAL STIRRUP AND STYLE

I Đai C:

Minh Họa		Form Nhập Liệu				
		Đai C	2			
		Đai C	3			

J Đai U:

Minh Họa		Form Nhập Liệu				
		Đai U	2-3			

K Đai Vuông:

Minh Họa		Form Nhập Liệu				
		Đai □	2-3			

CREATE COLUMN AUTOMATIC

	A	B	C	D	E	F	G	H	I	J	K	L
1	Beam width (mm)		800	<input type="checkbox"/> bar of layer 2 next to layer 1			<input type="checkbox"/> more stirrup at lap position		Cut bar at level			
2	Slab thickness (mm)		200	Column scale		1:30	<input checked="" type="checkbox"/> Auto stirrup spacing:		<input type="radio"/> 50% at 1 point <input checked="" type="radio"/> 50% at 2 point <input type="radio"/> 100% at 1 point			
3	Wall mark		C1	Cross section scale		1:20						
4	No of wall		1	Bar cover (mm)		30	Main stirrup	d10a100/200				
5	Foundation elevation (m)		-5,500	End bar (d)		15	add stirrup	d8a400				
6												
7	Level	Heigh m	Wall geometry		No of main bar				Bar Diameter	Lap position	Beam depth	Đai bao
8			Length	Width	Length		Width					
9	PILECAPS	1,500	mm	mm	Biên	Giữa	Lớp 1	Lớp 2	mm	mm	mm	đk+kc
10	BASEMENT	3,000	1000	800	7	7	7	7	25	150	600	d10a100/200
11	FLOOR 1	3,500	1000	800	7	7	7	7	25	150	600	d10a100/200
12	FLOOR 2	3,900	1000	800	7	7	7	7	25/20	150	400	d10a100/200
13	FLOOR 3	4,600	1000	800	7	7	7	7	20	150	400	d10a100/200
14	FLOOR 4	3,300	1000	800	7	7	7	7	20	150	600	d10a100/200
15	FLOOR 5	3,300	1000	800	7	7	7	7	20	150	400	d10a100/200

L	M	N	O	P	Q	R	S	T	U	V
---	---	---	---	---	---	---	---	---	---	---

Main Stirrup	Đai gia cường tự bố trí									
	Square stirrup verital		Square stirrup horizontal		Stirrup C Ver		Stirrup C Hor			
Diameter/spacing	scale	Diameter/spacing	quantity	scale	diameter/spaci	quantity	Diameter/spacing	quantity	Diameter/spacing	quantity
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2
d10a100/200	0,5	d10a400		0,5	d10a400		d10a400	2	d10a400	2

COLUMN INFORMATION

- ① **Define circular or rectangular column**
 - rectangular is same as put value in Length and Width cells
 - Circular is same as put value in Length only
- ② **Cut bar at level**
- ③ **Main stirrup**
- ④ **Additional vertical square stirrup**
- ⑤ **Additional horizontal square stirrup**
- ⑥ **Additional vertical stirrup C**
- ⑦ **Additional horizontal stirrup C**

CREATE WALL AUTOMATIC

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Beam width (mm)		800	Width of edge zone		675	<input type="checkbox"/> put stirrup at lap bar point <input type="checkbox"/> Auto stirrup spacing: main stirrup d10a100/200 add stirrup d8a400	Cut bar at level <input type="radio"/> 50% at 1 point <input checked="" type="radio"/> 50% at 2 points <input type="radio"/> 100% at 1 point									
2	Slab thickness (mm)		200	Column scale		1:30											
3	Wall mark		V1	Cross section scale		1:20											
4	No of wall		1	Bar cover (mm)		30											
5	Foundation elevation (m)		-5.500	End bar (d)		15											
6																	
7	Level	Heigh m	Wall geometry		No of main bar				Bar Diameter mm	Lap position mm	Beam depth mm	Đại tự bố trí					
8			Length	Width	Length		Width					Main stirrup	Edge stirrup	Stirrup C vertical		Stirrup C horizontal	
9			mm	mm	Edge	Middle	Layer 1	Layer 2				đk+kc	đk+kc	đk+kc	Số lượng	đk+kc	Số lượng
10	PILECAPS	1,500										d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
11	BASEMENT	3,000	3000	600	7	11	7	7	25	150	600	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
12	FLOOR 1	3,500	3000	600	7	11	7	7	25	150	600	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
13	FLOOR 2	3,900	3000	600	7	11	7	7	25/20	150	400	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
14	FLOOR 3	4,600	3000	600	7	11	7	7	20	150	400	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
15	FLOOR 4	3,300	3000	600	7	11	7	7	20	150	600	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2
16	FLOOR 5	3,300	3000	600	7	11	7	7	20	150	400	d10a100/200	d10a100/200	d10a400	2/3	d10a400	2

AUTOMATIC FLOOR

1

Diameter: 12

Spacing: 150

Cover: 25

Anchor rebar (d): 30

Deployment direction: Horizontal Vertical

Deployment rebar: Full floor Additional bars

Type of block: kata_block_KHT kata_block_KHTCTSH

Formula: sldkac L=Lt

Length of cog/hook: Left: 0, Right: 0

Bending angle: ̢̣

Staggered bars length at construction joint: 0

OK Cancel

2

Diameter: 12

Spacing: 150

Cover: 25

Anchor rebar (d): 30

Deployment direction: Horizontal Vertical

Deployment rebar: Full floor Additional bars

Type of block: kata_block_KHT kata_block_KHTCTSH

Formula: sldkac L=Lt

Length of cog/hook: Left: 100-1000, Right: 100-1000

Bending angle: ̢̣

Staggered bars length at construction joint: 0

OK Cancel

VIDEO:

https://www.youtube.com/watch?v=dG1_LLvR5fo

FLOOR INFORMATION

① Main bar

② Bar hool

- Left bar hook, right bar hook

③ Bar mark formula

- **sl**: quantity; **dk**: bar diameter; **kc**: spacing
- **Lt**: total lengt; **Li**: segment length; **Lmin**, **Lmax**: minimum, maximum length

④ Creat bar at construction joint

- create new layer with the name is CJ, draw a line with layer “CJ” at construction join, the bars will recognize this line and stop at this line

⑤ Additional top bar

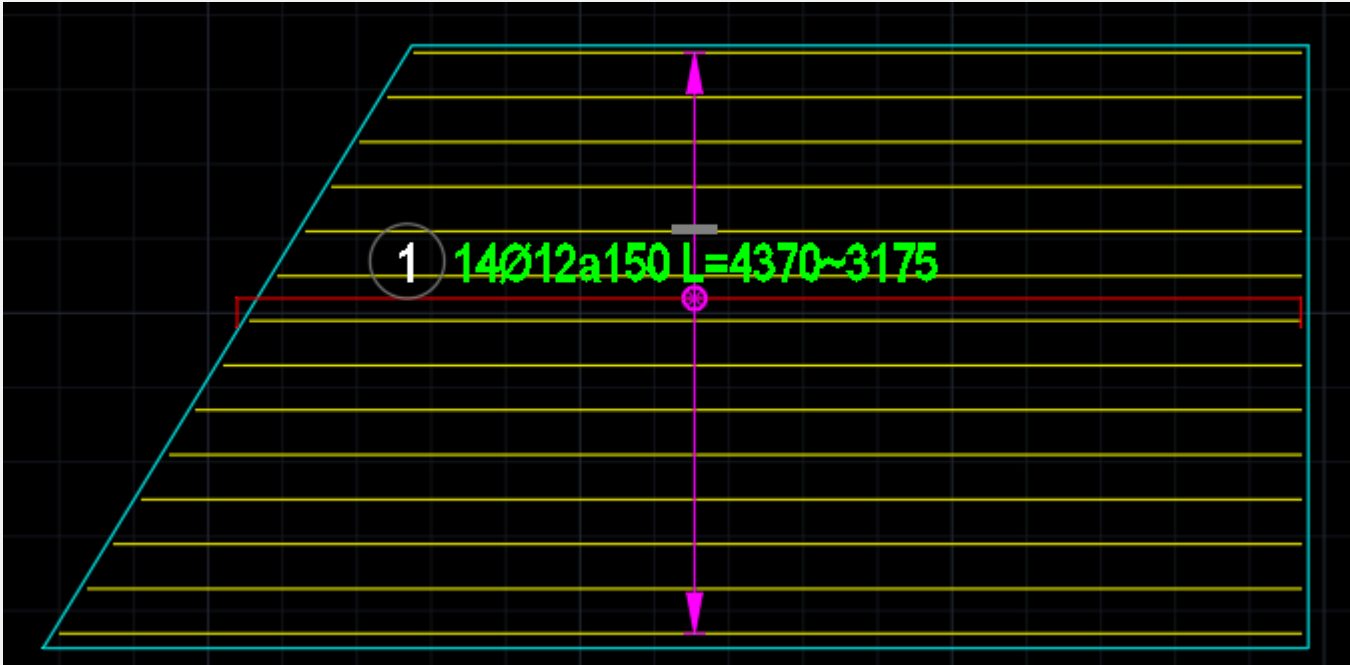
⑥ Additional bar style

- Put **100-1000** same as the hook is 100, bar length is 1000

❖ NOTE:

- Have to draw beam by layer: Kata_netkhuat
- Floor opening have to inside
- Make command “nhan” to make a bar different elevation

VARIATION FLOOR



VIDEO:

ISOLATED FOUNDATION

Detail isolated foundation

Detail foundation

Column steel

Diameter

Number direction X:

Number direction Y:

Link bar

Length of cog

Left:

Right:

Top:

Bottom:

Name

Draw foundation

Cancel

- Put value direct on screen

LỆNH VẼ MẶT CẮT THANH (vethang)

Detail stair

1200 2500 1000 +3.150 150 100 200 500 +1.000 100 200 200 700 200 200 600 200

- Put value direct on screen

Cover: 15 Width of stair: 1000 Side landing bars: inside

Rebar information

Landing bars: f10a200 Longitudinal bars: f10a100 Transverse bars: f6a200

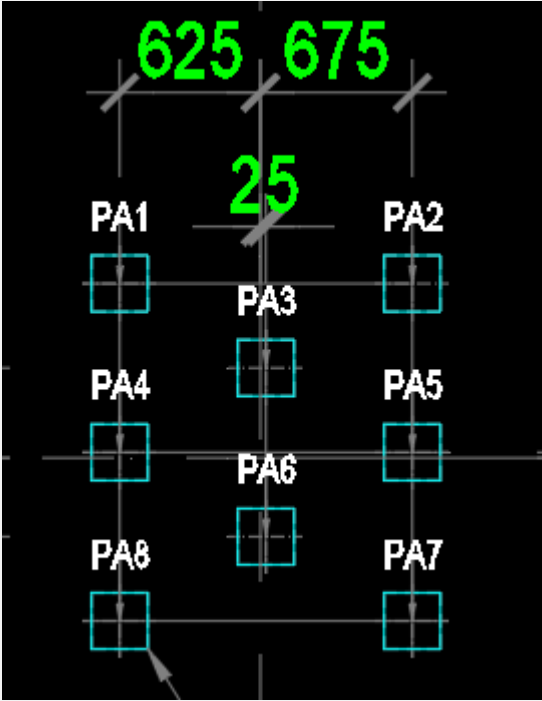
Undo Redo

Mirror Cancel Draw stair

Auto named of coordinates of piles(dten)

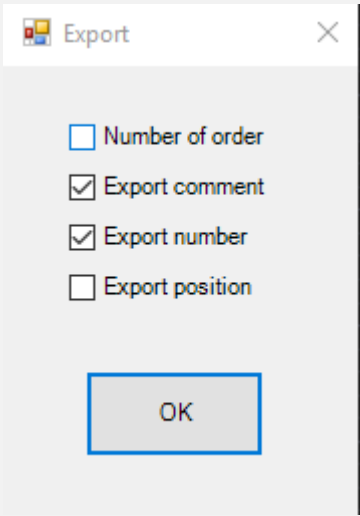
The screenshot shows a dialog box titled "Insert kata_block_ten" with a close button. It contains two sections: "Insert kata_block_ten at center of block" and "Distance from text to center of block". The first section has a "Block name" field containing "pile 250" (marked with a red circle 1) and a "Suffix" field. The second section has "X" and "Y" fields with values "0" and "300" respectively. Below the dialog box is a diagram with a central square containing the number "1" (marked with a red circle 3). Four green arrows point outwards from this square: up, down, left, and right. The right-pointing arrow is enclosed in a red dashed box (marked with a red circle 4). To the left of the diagram is a "Prefix" field containing "PA|" (marked with a red circle 2).

- 1. Put block name of piles
- 2. Prefix of pile naming
- 3. Start number of pile
- 4. Direction of number of pile naming



RESULT

ITEMS NAMING SCHEDULE(tkten)



STT	Tên cọc	Chú Thích	X (m)	Y (m)
1	PA1	coc250	-0.625	10.975
2	PA2	coc250	0.675	10.975
3	PA3	coc250	0.025	10.600
4	PA4	coc250	-0.625	10.225
5	PA5	coc250	0.675	10.225
6	PA6	coc250	0.025	9.850
7	PA7	coc250	0.675	9.475
8	PA8	coc250	-0.625	9.475

RESULT

- Type command tkten
- Selection style that you want to export

Note: You can use this command to schedule beam naming or any items

Troubleshooting

1. **The Katapro ribbon tab not visible**
2. The rebar is double quantity