

ETABS MATE

Concrete Structure Detailer
Software Catalogue

FARASA Engineering Group
website: www.FARASAEG.ir
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ETABS MATE

Concrete Structure Assistant
Software Catalogue

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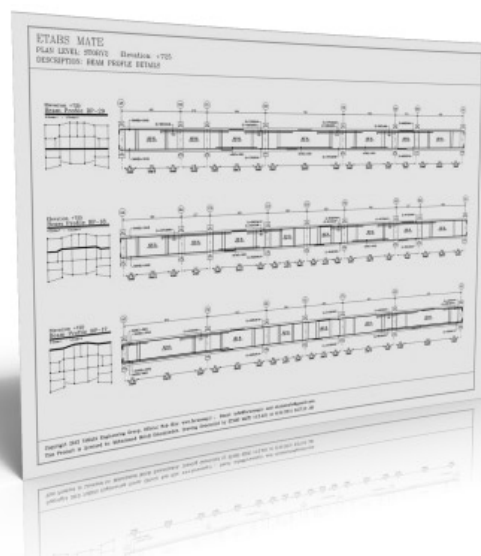


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ETABS MATE

Concrete Structure Assistant Software



ETABS MATE

Professional Concrete Structure Detailer Software

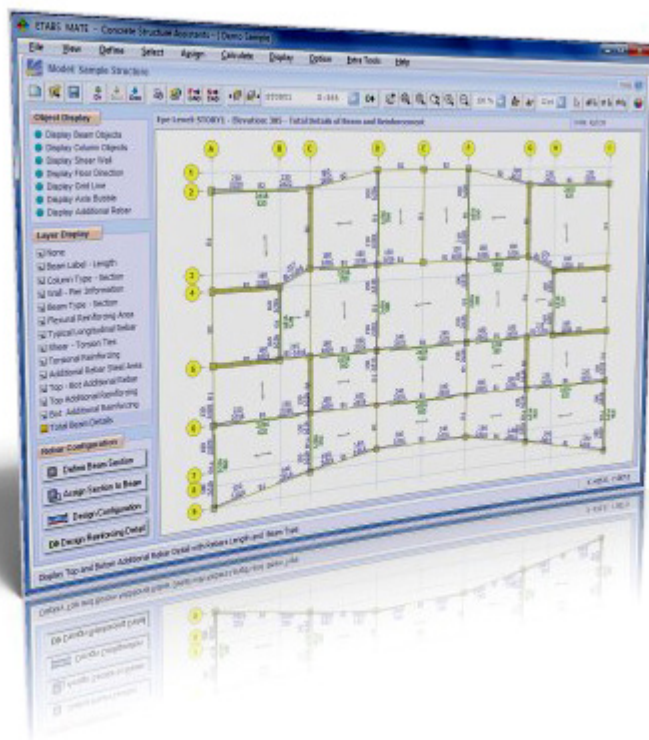
This software is a powerful and very quick tool for automatically design and draw reinforcement details of concrete structures in a developed, simple and user friend graphical interface in according to building modeling and design results of ETABS software.

By using this software you can preview your structure model in the graphical user interfaces, design reinforcement details and then generate structural drawings of your projects in few seconds. Also you can generate structural drawings of your model according to envelop of any number of design files. Software can save generated structural drawings in the AutoCAD drawings file format.

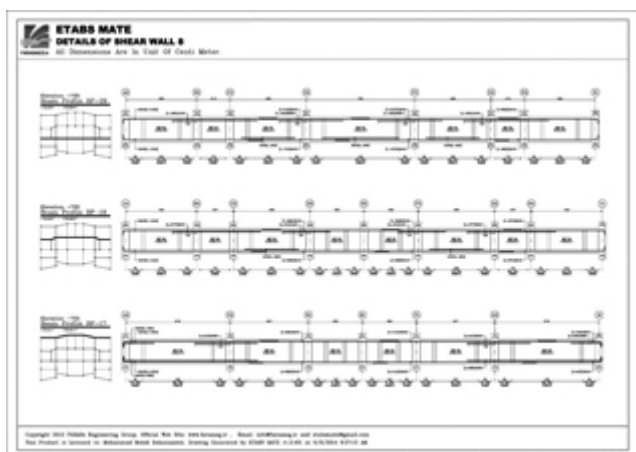
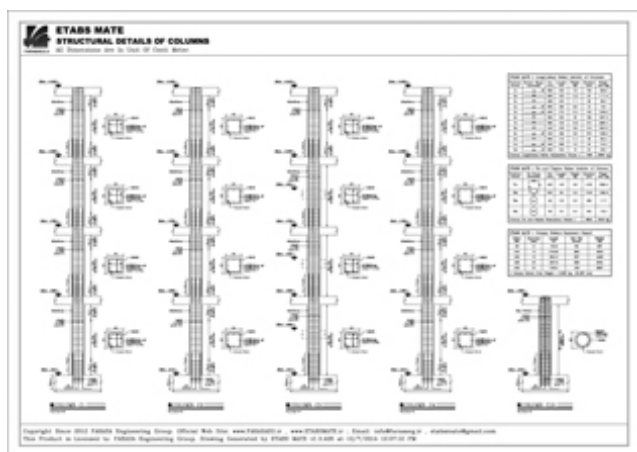
In addition ETABS MATE can prepare several kinds of reports such as structural material list according to element type or story sequence and other useful reports.

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In order to using ETABS MATE software for concrete structure detailing, the project must be model, analyze and design in the ETABS first. Specific instructions or restrictions are not required for labeling or naming the elements or frame sections that they are using in the ETABS modeling. And you can do modeling of your structure in the ETABS without any restrictions or any limitation in any way that you feel comfortable. After the modeling and design processes was completed and when all results were satisfactory and you decide to start the structure detailing, the whole process of structure reinforcement design and generating structural drawing will be completed in just a few minutes by using the ETABS MATE software.



ETABS MATE

Concrete Structure Assistant Software



Features and Capabilities

- **Incredibly speed up reinforcement design and preparing structural drawings process.**
(about 1 second for a building with 5000 m² of area)
- **Compatible to all versions of ETABS Software.**
- **Compatibility of generated drawings with all versions of AutoCAD Software.**
- **Simple Procedure for importing structure from ETABS to ETABS MATE.**
- **User friendly and very simple graphical interfaces.**
- **Independent software without any dependency to other programs.**
- **Equipped with powerful and very quick internal drawing engine.**
- **Easy to edit drawings that generated by software.**
- **Previewing all computed reinforcement details of with a very convenient way in the plans of structure.**
- **You can generate structural drawings with envelop of several design files of one structure.**
- **Automatically calculate splice length of rebar or use user defined multiplier for calculate them.**
- **Auto labeling all rebars in structural drawings.**
- **Auto generate rebar list table include size, shape, length and weight of rebars in the structural drawings.**
- **Automatically read all defined frame section and wall section from etabs model file and regenerate them.**
- **Ability to define new section or edit properties of section that automatically generated by software.**
- **Ability to define new section or edit properties of section that automatically generated by software.**
- **All reinforcing design parameters can be configured in the software.**
- **Ability to change reinforcing design details in software before generating structural drawings.**
- **Preparing a variety of printable reports such as weight of steel and concrete volume by elements type, story or rebar size.**

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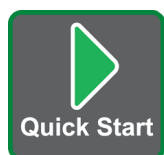
A Brief on How to Work With the ETABS MATE

After the modeling and design processes was completed and when all results were satisfactory and you decide to start the structure detailing, the whole process of structure reinforcement design and generating structural drawing will be completed in just a few minutes by using the ETABS MATE software.

The whole process of concrete reinforcement detail design and generating structural drawings by ETABS MATE software will be carried out in just four simple steps. Here you will introduce with these four simple steps quickly.

- 1 Generate Model Text Tile and Save Design Results Files of Structure by ETABS
- 2 Import Prepared Files in the First Step to the ETABS MATE Software
- 3 Adjust the Design Parameters and Run Reinforcement Details Design Procedure
- 4 Generate Structural Drawings of Project in the AutoCAD Drawings File Format

To get more information about these steps you can download **ETABS MATE Quick Start** article from **Download Center** of official web site of software.



ETABS MATE Quick Start

Just in 4 Steps

 **Official Website:** www.FARASAEG.ir » Download Center
www.ETABSMATE.ir » Download Center

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Software Screenshots



To inform more about graphical user interfaces (GUI) and functionality of the software, screenshots from different parts of the software is given below:



Screen shot of main window of software:

The screenshot displays the main window of ETABS MATE - Concrete Structure Assistants - [Demo Sample]. The window title bar includes the software name and version. The menu bar contains: File, View, Define, Select, Assign, Calculate, Display, Option, Extra Tools, Help. The toolbar includes various icons for file operations, navigation, and design. The main area shows a structural model titled 'Model: Sample Structure' at 'Eye Level: STORY1 - Elevation: 385 - Total Details of Beam and Reinforcement'. The model is a grid of columns (A-H) and beams (1-9). A dialog box titled 'Structure Reinforcing Design' is open, showing the progress of the design process. The dialog box contains the following information:

- Design Reinforcing Details ...
- Column Reinforcing Design Completed.
- Shear Wall Reinforcing Design Completed.
- Beam Reinforcing Design is in Progress...
 - Analyzing of Beam Position Completed.
 - Beam Rebar Matching... (Try 8)

Structure Reinforcing Design 80% Completed.

Please Wait ...

The dialog box also features a progress bar and a 'Please Wait ...' message. The main window also has a sidebar with 'Object Display' and 'Layer Display' options, and a 'Rebar Configuration' section at the bottom left.

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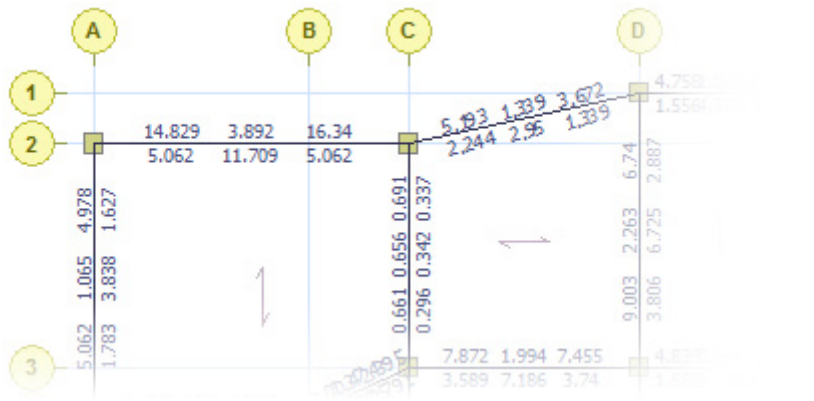


Images from main graphical area of software in several layer display mode:

By using layer display panel in the left side of software you can switch the information that displayed on the elements in the main display of software. Some of this layer has been shown in the below images.

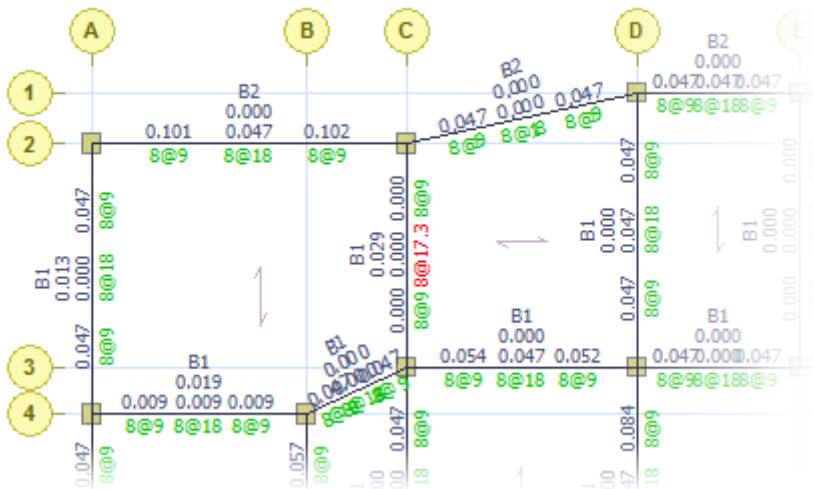
Layer Display

- Beam Label - Length
- Beam Type - Section
- Floor Assignment Details
- Floor Loading Details
- Wall - Pier Information
- Column Type - Section
- Flexural Reinforcing Area
- Typical Longitudinal Rebar
- Shear - Torsion Ties
- Torsional Reinforcing
- Additional Rebar Steel Area



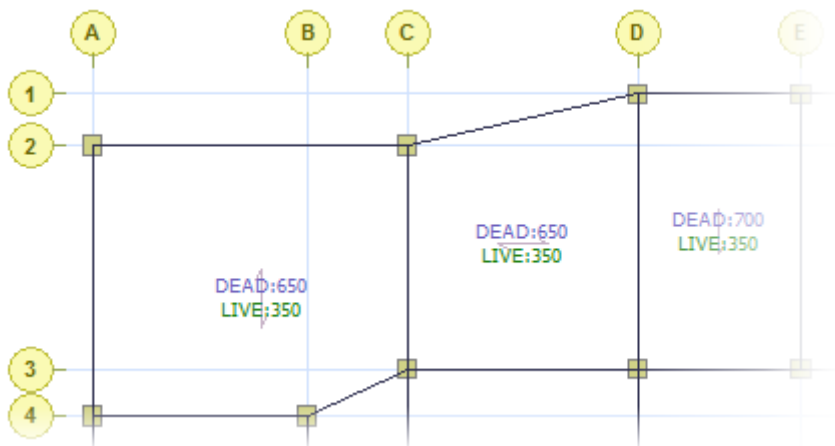
Layer Display

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- Beam Type - Section
- Floor Assignment Details
- Floor Loading Details
- Wall - Pier Information
- Column Type - Section
- Flexural Reinforcing Area
- Typical Longitudinal Rebar
- Shear - Torsion Ties N/E
- Torsional Reinforcing
- Additional Rebar Steel Area
- Top Additional Reinforcing



Layer Display

- Beam Label - Length
- Beam Type - Section
- Floor Assignment Details
- Floor Loading Details
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- Typical Longitudinal Rebar
- Shear - Torsion Ties
- Torsional Reinforcing
- Additional Rebar Steel Area
- Top Additional Reinforcing
- Bot. Additional Reinforcing

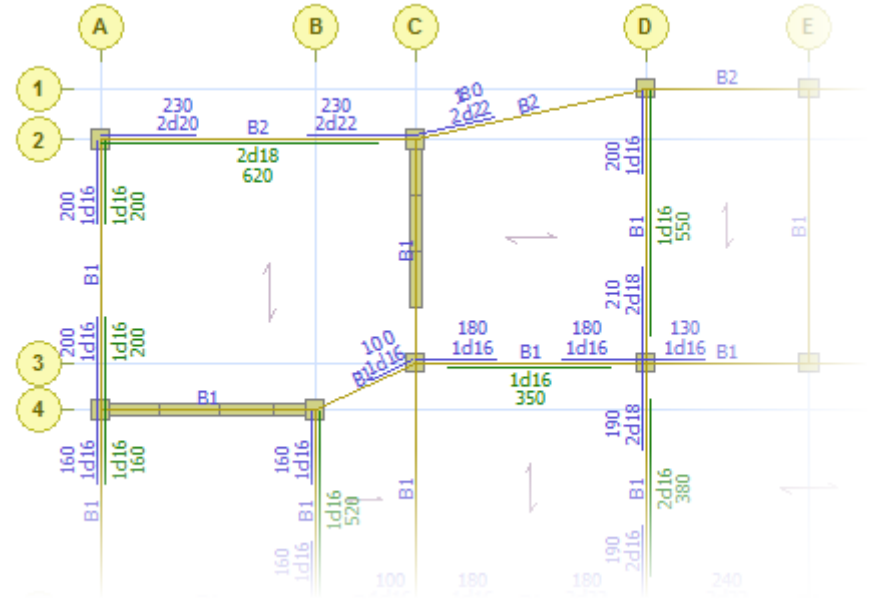


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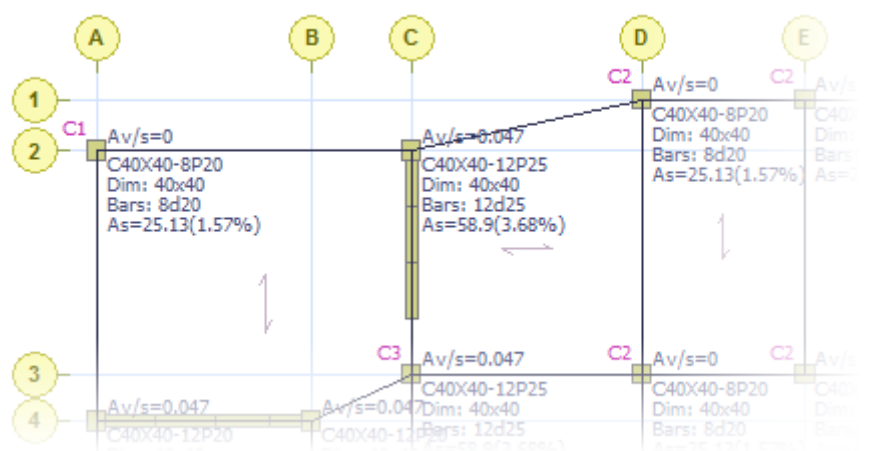
Layer Display

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- Top Additional Reinforcing
- Bot Additional Reinforcing
- Total Beam Details
- Beam Profile Details



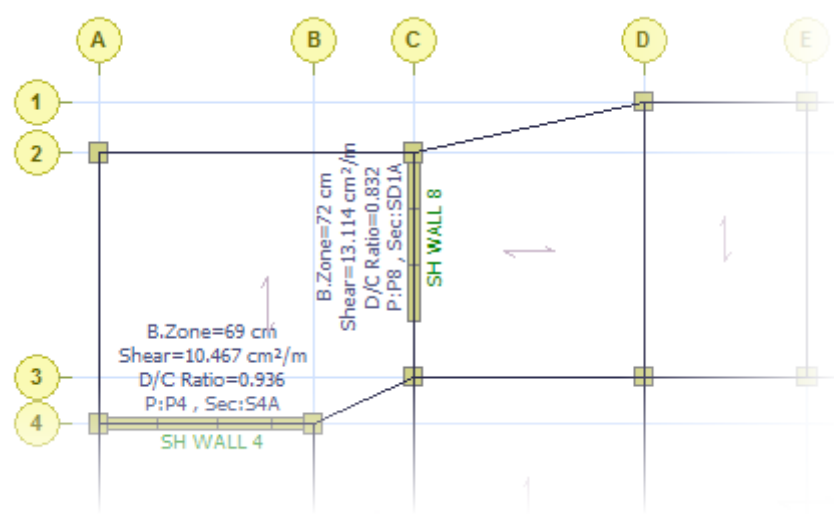
Layer Display

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Layer Display

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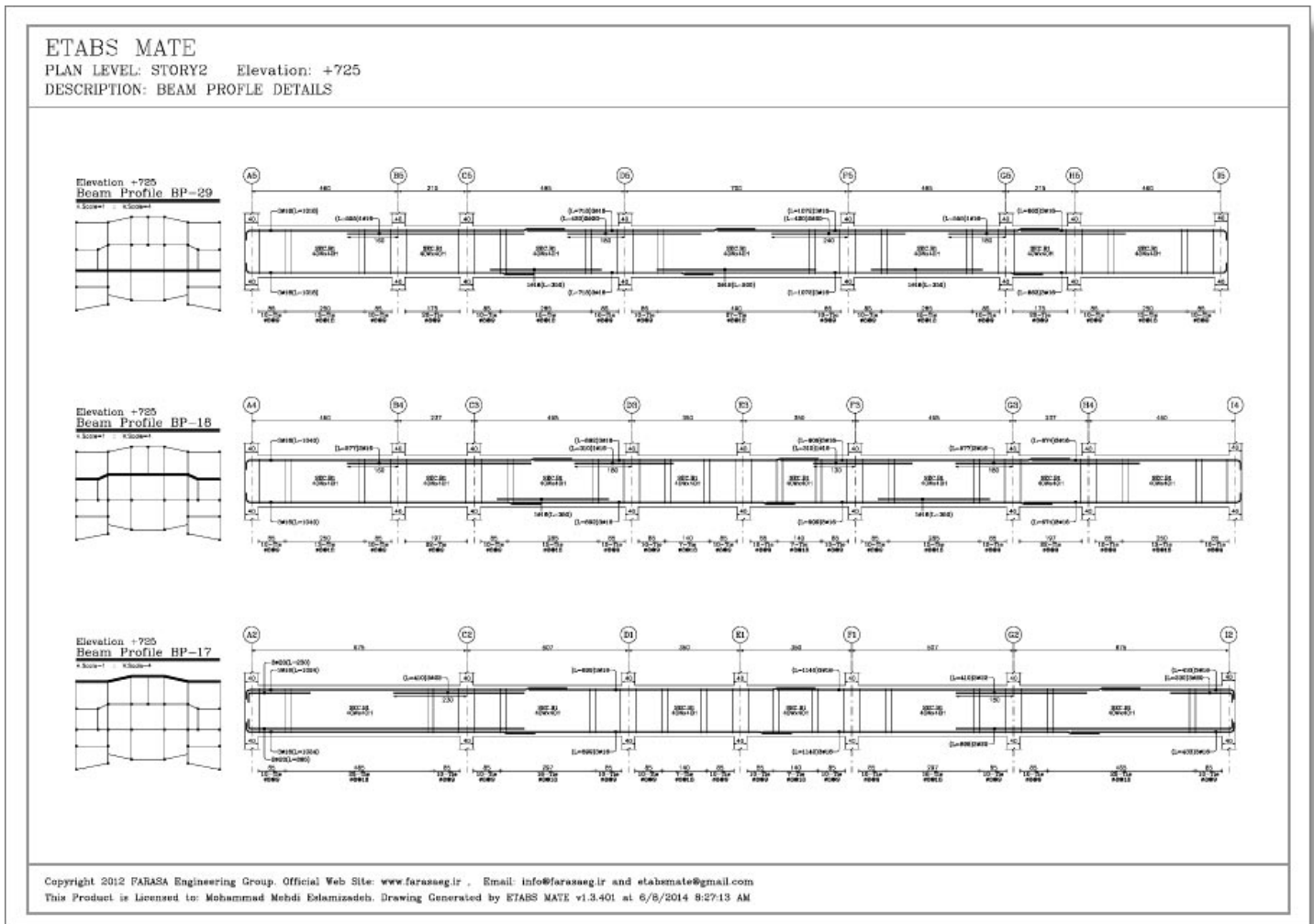
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Details of the beam longitudinal profiles generated by software:

Here is a sample of some beam details drawing of a four story building that generated by software. Total beam profile drawing details of usual buildings take only about one second.



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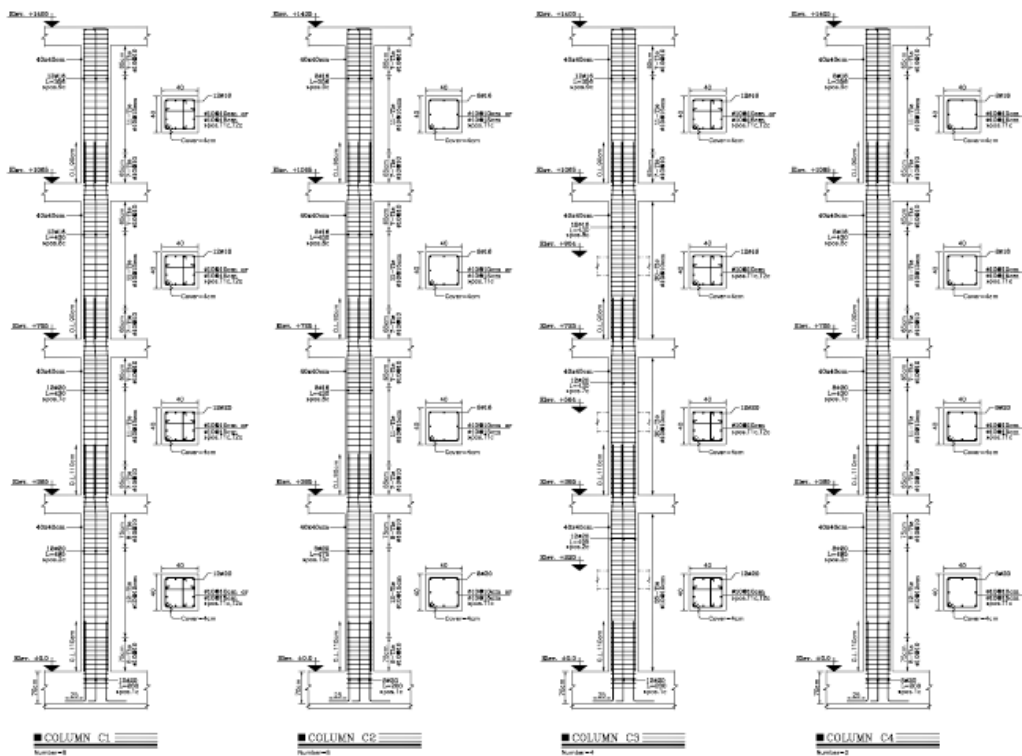
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Drawings of the columns details generated by software:

Here is a sample of some column details drawing of a four story building that generated by software. Rebar list table of columns is also can be viewed in the image.
 Drawing engine of software is very fast so that all consumed time for generating the total frame drawing detail of usual buildings take only less than one second.

ETABS MATE
STRUCTURAL DETAILS OF COLUMNS
 All Dimensions Are In Unit Of Centi Meter.



ETABS MATE - Longitudinal Rebar List of Columns

Number	Rebar Shape	Length (mm)	Weight (kg)	Number	Weight (kg)
3a	#8	232	4.8	188	898.8
3b	#8	495	12.2	39	1171.9
3c	#8	488	11.1	39	865.1
4a	#8	285	5.8	18	142.7
4b	#8	276	5.6	188	1850.2
4c	#8	325	8.7	188	3827.8
7a	#8	438	12.6	273	3888.6
7b	#8	435	5.8	430	2453.3
8a	#8	325	8.7	273	1528.3
200	#8	475	11.7	48	563.3
10a	#8	288	4.3	33	124.3
100	#8	435	10	34	238.7

Selected Longitudinal Rebar Characteristics Values = 1790 18807 kg

ETABS MATE - The used Rebar Rebar List of Columns

Rebar	Rebar Shape	Length (mm)	Weight (kg)	Number	Weight (kg)
7a	#8	148	3.6	4182	5882.4
7b	#8	33	3.2	4184	1380.8
7c	#8	48	3.8	298	113.7
7d	#8	181	6.6	480	178.5

Column Size and Spacing Dimension Values = 8840 38802 kg

ETABS MATE - Column Rebar Rebar Report

Rebar	Rebar Shape	Length (mm)	Weight (kg)	Number	Weight (kg)
4a	#8	76.8	8.5	207	1697.7
4b	#8	816.8	880	800	6960
4c	#8	282.2	607	480	1488
4d	#8	2807.4	308	804	804
4e	#8	1548.4	379	387	587

Column Rebar Rebar Weight = 10887 kg (28.48T and)

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Drawings of the shear walls details generated by software:

Here is a sample of shear wall details drawing of a four story building that generated by ETABS MATE software. Rebar list table of the wall is also can be viewed in this image. Drawing engine of software is very fast so that all consumed time for generating the total shear walls details of usual buildings take only less than one second.

ETABS MATE
DETAILS OF SHEAR WALL 8

FARASAEG.ir All Dimensions Are In Unit Of Centi Meter.

DETAILS OF SHEAR WALL 8
ELEVATION VIEW

SHEAR WALL 8 : SECTION C-C

Use double hook length of 100% (min. 400mm) as main rebar lap length of wall. Use vertical lap length of 100% (min. 400mm) for horizontal reinforcement.

SHEAR WALL 8 : SECTION B-B

Use double hook length of 100% (min. 400mm) as main rebar lap length of wall. Use vertical lap length of 100% (min. 400mm) for horizontal reinforcement.

SHEAR WALL 8 : SECTION A-A

Use double hook length of 100% (min. 400mm) as main rebar lap length of wall. Use vertical lap length of 100% (min. 400mm) for horizontal reinforcement.

ETABS MATE > Main Rebar List of Shear Walls						
Position Number	Rebar Shape (Automatic)	Dia. (mm)	Length (mm)	Weight (Kg)	Number (pcs)	Weight Total (Kg)
1a	36	#25	590	21.6	16	345.3
2a	36	#25	270	10.4	16	166.5
3a	44	#10	404	2.5	200	498.2
4a	44	#20	495	12.2	18	219.7
5a	110	#20	200	4.9	18	88.8
6a	44	#16	475	7.5	28	209.9
7a	110	#16	175	2.8	28	77.3
8a	44	#20	450	11.1	16	177.6
9a	44	#18	430	6.8	52	352.9
10a	44	#16	430	5.1	28	142.1
11a	44	#12	410	3.6	28	101.9
12a	44	#18	357	5.6	34	191.6
13a	44	#12	352	3.1	28	87.8
Shear Wall Main Rebar Summation Values >						510

ETABS MATE > Tie and Topline List of Shear Walls						
Position Number	Tie Shape (Automatic)	Dia. (mm)	Length (mm)	Weight (Kg)	Number (pcs)	Weight Total (Kg)
71a	5	#10	146	0.9	112	100.8
72a	5	#10	63	0.4	224	87
73a	5	#10	212	1.3	112	146.4
74a	5	#10	48	0.3	336	99.4
75a	5	#10	132	0.8	112	91.1
Shear Wall Tie and Topline Summation Values >						808

ETABS MATE > Shear Wall Rebars Summary Report				
Rebar Size	Diameter (mm)	Length (m)	12m Bar Number	Weight (kg)
#10	10	1859.2	138	1023
#12	12	213.4	16	189
#14	14	137.6	10	142
#16	16	527	44	832
#20	20	167.1	16	486
#25	25	132.8	11	542
> Shear Wall Rebars Total Weight = 3184 Kg (3.184 ton)				

Overlap Length According to Rebar Position in cm										
Rebar Size	#10	#12	#14	#16	#18	#20	#22	#25	#30	#32
Beam Top	70	80	100	110	130	140	200	220	250	280
Beam Bottom	50	70	80	90	100	110	130	170	190	220
Column Wall	50	70	80	90	100	110	130	170	190	220

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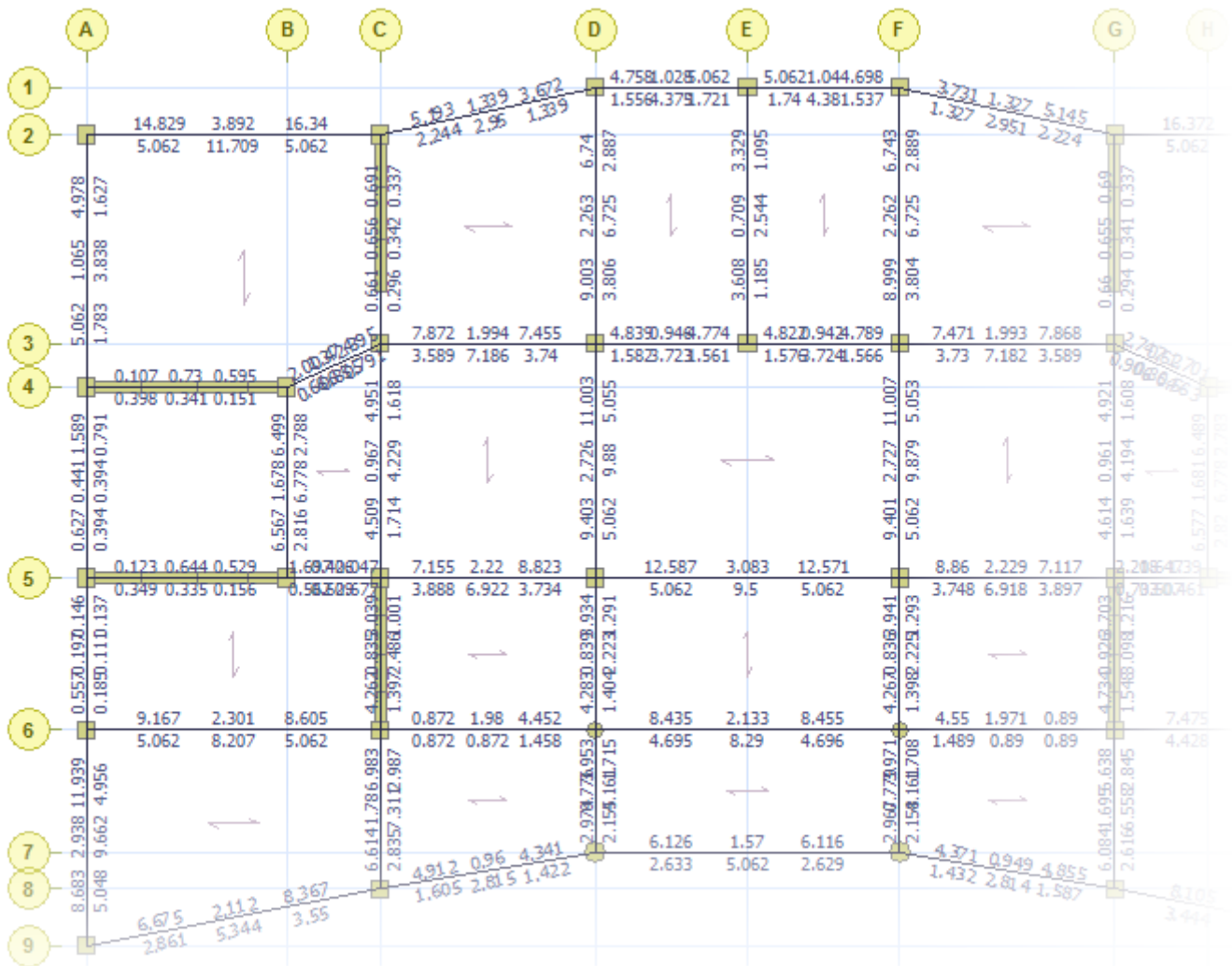
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Software envelops all imported design files data and displays them on the structure:

If you have more design data files, you can import them to the software. In this case, software envelops all design data points for each position of element. So all design values that show in the software on the elements are the maximum value of all imported design data files for each position. Also software considers these maximum values of each element positions in the reinforcement details design procedures.



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All information related to the shear walls is easily visible in plan:

ETABS MATE - Concrete Structure Assistants - [Demo Sample]

File Export View Define Select Assign Design Reports Display Option Extra Tools Help

Model: Sample Structure

STORY1 E: 385

Object Display

- Display Beam Objects
- Display Column Objects
- Display Shear Wall
- Display Floor Direction
- Display Grid Line
- Display Axis Bubble
- Display Additional Rebar

Layer Display

- Beam Label - Length
- Beam Type - Section
- Floor Assignment Details
- Floor Loading Details
- Wall - Pier Information
- Column Type - Section
- Flexural Reinforcing Area
- Typical Longitudinal Rebar
- Shear - Torsion Ties
- Torsional Reinforcing
- Additional Rebar Steel Area
- Top Additional Reinforcing
- Bot. Additional Reinforcing
- Total Beam Details
- BP Beam Profile Details

Rebar Configuration

- Define Beam Type
- Assign Section to Beam
- Design Configuration
- Design Reinforcing

Eye Level: STORY1 - Elevation: 385 - Shear Wall Types and Design Informations

Wall ID	B.Zone (cm)	Shear (cm ² /m)	D/C Ratio	Section
SH WALL 4	69	10.467	0.936	P:P4, Sec:S4A
SH WALL 3	69	10.946	0.819	P:P3, Sec:S3A
SH WALL 6	52.5	9.754	0.859	P:P6, Sec:S2A
SH WALL 8	72	13.114	0.832	P:P8, Sec:SD1A

Ready.

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Image of editing shear wall design details:

By click on any wall, all information that related to the selected shear wall will be show by the below interface in the all stories, this information is editable as seen in the following image:

SH Shear Wall Information

Export Configuration Settings Export Drawings Overwrite Manager

SHEAR WALL Detailing

Shear Wall Type: **SH WALL 4**

Story of Wall Extents:
 ROOF
 STORY3
 STORY2
STORY1

Piers in Selected Story:
P4

Wall Detail of Pier P4 in STORY1

Wall Section: S4A Show Section
 Flex Ratio=0.936
 Shear Av=10.467 cm²/m
 Horizontal Rebar: d10@15cm
 B-Zone Length=69 cm
 Top Elevation=385 cm
 Bot. Elevation=0 cm

Section Preview

Overwrites Design

Specified Horizontal Rebar Shear Av : 10.47 cm²/m
 Overwrite Horizontal Rebar Details :
 Calculated Boundary Zone Length : 69 cm
 Overwrite Boundary Zone Length :

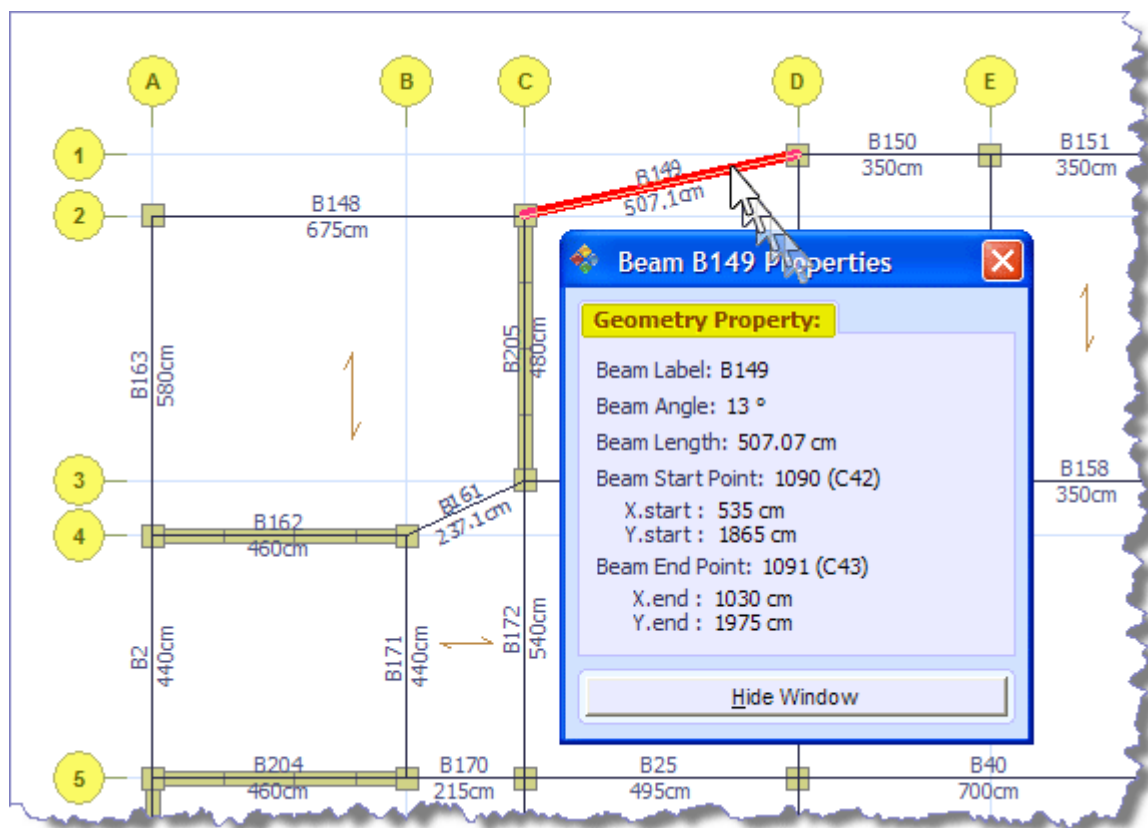
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Image of beams geometric properties interface

By click on any beam in a respective layer, all geometric information related to the selected beam will be displayed as seen in the following image:



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Image of how to set the parameters of the structural reinforcement design:

In this interface you can configure frame reinforcing design parameters. These parameters can be visible in the following image and you can configure them simply.

ETABS MATE - Reinforcing Design Configuration

Configuration Settings

Configure Parameters of Reinforcement Calculating Close

Additional Rebar Length Parameter :

Additional Rebar List :

Select Beam Additional Rebars

- Rebar d14 $As=1.54 \text{ Cm}^2$
- Rebar d16 $As=2.01 \text{ Cm}^2$
- Rebar d18 $As=2.54 \text{ Cm}^2$
- Rebar d20 $As=3.14 \text{ Cm}^2$
- Rebar d22 $As=3.80 \text{ Cm}^2$
- Rebar d25 $As=4.91 \text{ Cm}^2$
- Rebar d28 $As=6.15 \text{ Cm}^2$
- Rebar d32 $As=8.04 \text{ Cm}^2$

Reinforcing Calculate Process Configuration :

A = 0.25 B = 0.33 C = 0.875 D = 0.75 H = 12 x db

Specify Minimum Space Limit Between Ties of Beam: 6 cm

Specify Ignor Value for Reinforcing Design Calculation: 0 cm^2

Specify Rebar Length Step for Reinforcement Rounding: 10 cm

Join Rebars If Gap Between Them in Beam Less Than: 1 cm

Consider One Rebar Detail If Beam Length Less than: 100 cm

Consider (As TOP)/ 3 for As Bottom in Beam Ends if > 1 cm^2

Consider Torsional Steel Area in Beam Reinforcing Design Calculation

Dont Consider Piered Columns in the Column Type Design Procedure

Try Number for Rebar Matching: 10 (Depending to Beam Span Number)

Apply and Close Load Software Default Configuration Save as User Default Configuration Cancel

After making any changes in this interface all frame designed reinforcement details of structure frame will be reset and you must redesign reinforcement details again.

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Image of how to set the parameters of the shear wall reinforcement design:

In this interface you can configure Shear Wall reinforcing design parameters. These parameters can be visible in the following image and you can configure them simply.

Shear Wall Reinforcing Design Configuration

Configuration Settings

Parameters of Reinforcing Design

Wall Main Rebars Design Configuration :

Select Horizontal Rebar Size	Minimum Space of Horizontal Rebars :	Maximum Space of Horizontal Rebars :	Interval Distance of Horizontal Rebars :
<input checked="" type="checkbox"/> Rebar d10 As=0.79 Cm ²	10 cm	30 cm	5 cm
<input checked="" type="checkbox"/> Rebar d12 As=1.13 Cm ²			
<input checked="" type="checkbox"/> Rebar d14 As=1.54 Cm ²			
<input checked="" type="checkbox"/> Rebar d16 As=2.01 Cm ²			
<input checked="" type="checkbox"/> Rebar d18 As=2.54 Cm ²			
<input checked="" type="checkbox"/> Rebar d20 As=3.14 Cm ²			
<input checked="" type="checkbox"/> Rebar d22 As=3.80 Cm ²			
<input checked="" type="checkbox"/> Rebar d25 As=4.91 Cm ²			
<input type="checkbox"/> Rebar d28 As=6.15 Cm ²			
<input type="checkbox"/> Rebar d32 As=8.04 Cm ²			

Valid Space Between Horizontal Rebars

H.Rebar Space= 30 cm
H.Rebar Space= 25 cm
H.Rebar Space= 20 cm
H.Rebar Space= 15 cm
H.Rebar Space= 10 cm

Extend wall horizontal rebars to ends of shear wall extent.

Reduce distance of vertical rebars in boundary zone if this distance more than 20cm.
Reduce distance of these vertical rebars in wall boundary zone to : 15 cm

Boundary Zone and Tie Details Configuration :

Specify Rebar Diameter of Shear Wall Boundary Zone Ties and Tiepins : Φ 10 mm

Specify Maximum Limit of Vertical Space Between Wall Ties and Tiepins : 15 cm

Specify Minimum Considerable Length of Shear Wall Boundary Zone Limits : 0 cm

Apply Changes and Close Close

After changing these parameters, new configuration settings affect on the shear wall reinforcing design automatically by clicking on apply change button, and you don't need to redesign structure again.

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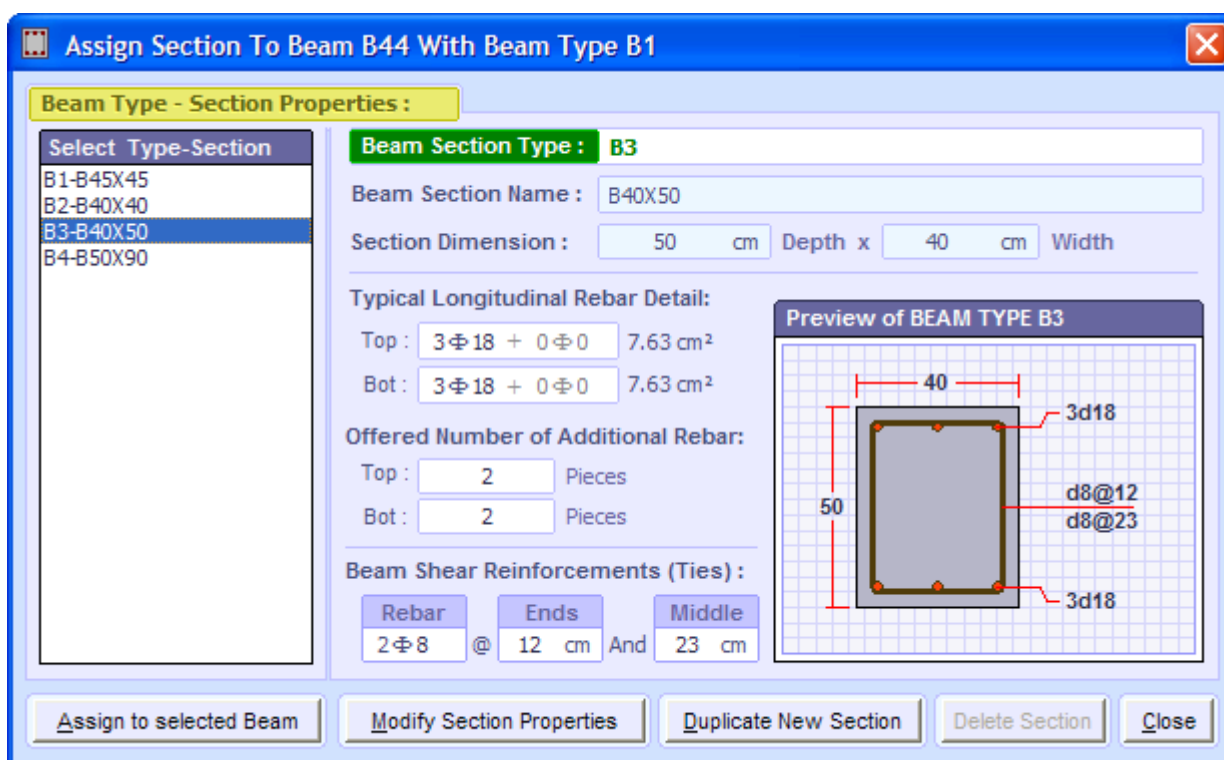
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Image of how to assign longitudinal and shear reinforcement of the beam sections:

After importing structure model to the ETABS MATE, software automatically import all frame sections which they are used in the structure elements. Then software assigns some design properties such as type name, longitudinal and transverse reinforcements to the each type automatically as seen on the following image.

By this interface you can manage all beam types of the project and also you can view and modify each beam type properties such as type name, longitudinal rebar details and shear reinforcement details if necessary, as seen in the following image.



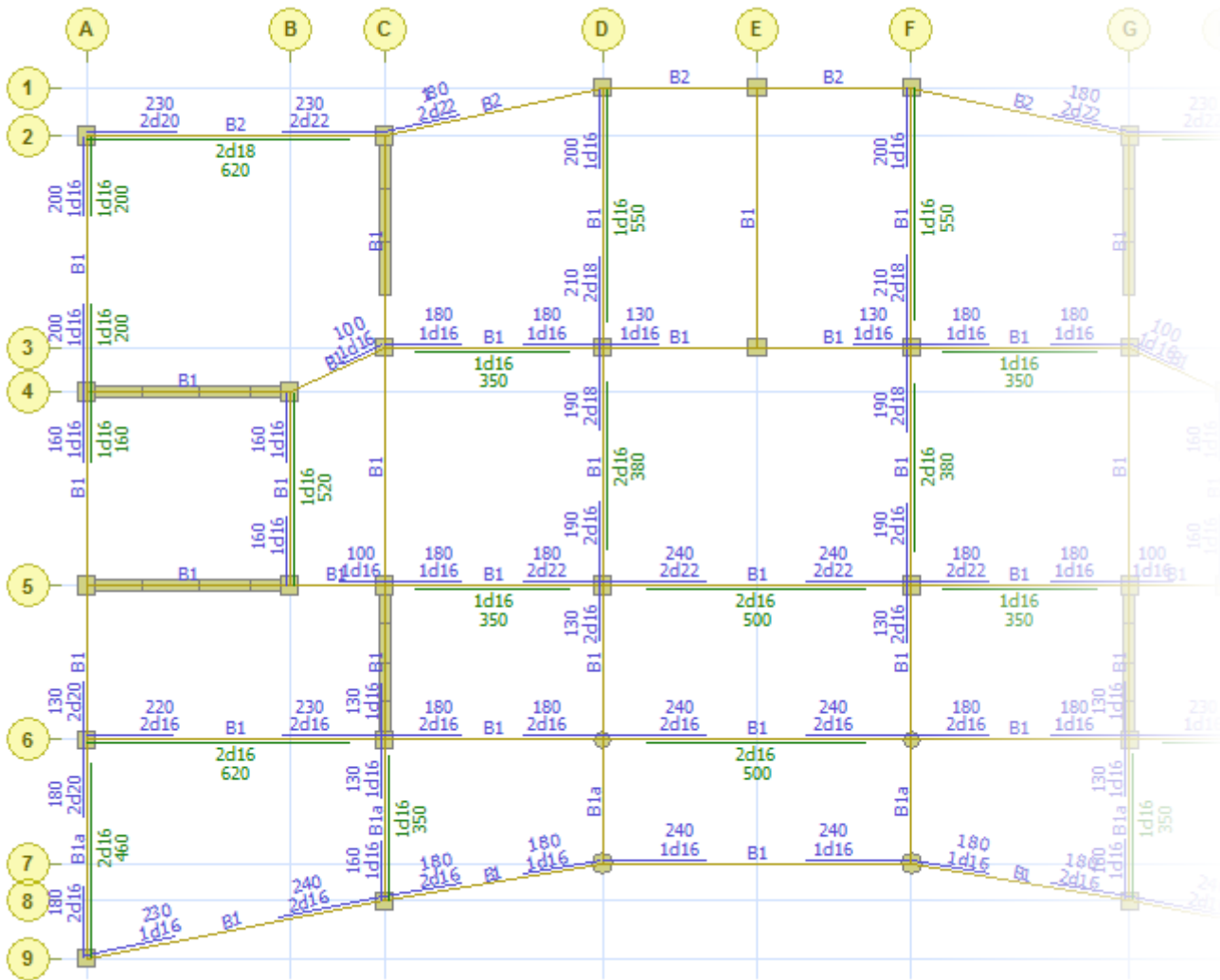
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Image of designed beam additional reinforcement details in the graphical area of software:

After the completion of the design process, software design results will be visible in the main window of software. For example in the beam additional reinforcement layer you can see number, size and length of additional rebars of beam as seen in the following image.



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Image of editing beam longitudinal reinforcement design details:

All reinforcement details that designed by software can be edited by the user via right-clicking on the element and the following communication window:

Rebar Details of Beam B148

Angle: 0°

Selected Beam Composition Details

Type : B2	Length : 675 cm	Beam Position : End of Multi Span
Section: B40X40	S. Offset: 20 cm	Start Condition: Not Continus
Story : STORY1	E. Offset: 20 cm	End Condition: Continus
Elevat. : 385 Cm	Len. Net: 635 cm	Beam Direction : 0°

Reinforcement Details :

Rebar Location	Torsion As	Flex. As	Typical As	M. Add. As	Add. Rebar	Length
START	TOP	0.000	14.829	9.42	5.405	2d20 230
	BOT	0.000	5.062	7.63	0.0	-
MIDDLE	TOP	0.000	3.892	9.42	0.0	-
	BOT	0.000	11.709	7.63	4.075	2d18 620
END	TOP	0.000	16.34	9.42	6.916	2d22 230
	BOT	0.000	5.062	7.63	0.0	-

Buttons: Overwrite Changed Details And Close, Overwrite Changed Details, Close

ETABS MATE

Concrete Structure Assistant Software



Image of editing beam transverse reinforcement design details:

All reinforcement details that designed by software can be viewed by the user via right-clicking on the element and the following interface:

Rebar Details of Beam B148

Angle : 0°

Selected Beam Composition Details

Beam Type : B2 Beam Length : 675 cm
 Beam Section : B40X40 Section Width : 40 Cm
 Story Label : STORY1 Section Height : 40 Cm
 Beam Elevat. : 385 Cm Critical Length : 80 Cm

Reinforcement Details :

BEAM ZONE	START	MIDDLE	END
Shear Reinforcing Av/s	0.101	0.047	0.102
Torsion Reinforcing At/s	0.000	0.000	0.000
Av/s + 2 At/s	0.101	0.047	0.102
Defined Tie Details	2d8@9cm	2d8@18cm	2d8@9cm
Suggestion Tie Details	-	-	-

Buttons: Define and Assign New Section for This Beam, Close

ETABS MATE

Concrete Structure Assistant Software



Image of generating frame drawings interface:

This interface contains frame drawings parameters as seen in the following image.

By using this interface you can configure the drawings parameters if necessary and then generate the frame drawings and save it in AutoCAD file format.

ETABS MATE - Export Frame Drawings to AutoCAD

Configuration Settings Export Drawings

Export Drawings Configuration Default Configuration Load Custom Configuration Close

Beam Plan Configuration :

Text Height of Beam Details: 16

Line Weight of Beam Extension: 3

Line Weight of Additional Rebar: 3

Text Height of Section Details: 24

Text Height of Section Titles: 40

Text Height of Dimension Labels: 20

Show Tie Details Text in Beam Section

Draw Axis Grid Line in Beam Plans

Offset Beam Width on Beam Type Plan

Column Detail Configuration :

Column Profile Hor. Scale (XS): 4

Column Profile Ver. Scale (YS): 2.5

Column Profile Section Scale: 5

Line Weight of Column Rebar: 5

Top of Beam Elevation Offset: 0

Text Height of Column Details: 20

Text Height of Column Caption: 30

Space Between Column Profile: 360

Foundation Thickness of Project: 70 cm

Show Position Number Label on Rebars

Show Rebars List Table on Drawings

Drawing Export Methods :

Method 1 (Less Paper Consumption)

Method 2 (More Paper Consumption)

Preview of Exporting Layers Properties :

Layer Name	On	Freez	Lock	Color	Line Type
0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	white	CONTINUOUS
EM_AXIS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	red	EM_DASHDOT
EM_BAR_BOT_LINE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	green	CONTINUOUS
EM_BAR_BOT_TEXT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	green	CONTINUOUS
EM_BAR_TOP_LINE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	cyan	CONTINUOUS
EM_BAR_TOP_TEXT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	cyan	CONTINUOUS
EM_BEAM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	yellow	CONTINUOUS
EM_COLUMN	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	white	CONTINUOUS
EM_DIM	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	red	CONTINUOUS
EM_FLOOR	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	magenta	CONTINUOUS
EM_GRID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	EM_DASHDOT
EM_GRID_BULB	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	red	CONTINUOUS
EM_SOLID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	CONTINUOUS
EM_TEXT	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	magenta	CONTINUOUS
EM_TIE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8	CONTINUOUS
EM_WALL	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	white	CONTINUOUS

General Parameters :

Export Only Columns Details Drawings without Beam Detail Plans

Shrink Size of Detail Text if Text Width is More Than Object Length

Fill Inside of Columns Section in Plan View Drawings

Open Drawings in AutoCAD When Exporting Job Completed

A CAD Export All Drawings to AutoCAD in DXF Drawing Format (Method 2)

C CAD Export Current Display Only to AutoCAD in DXF Drawing Format

ETABS MATE

Concrete Structure Assistant Software



Image of material report generator interface of software:

Software can provide several reports of reinforcement weight and concrete volume of structure. By using this interface, software will calculate material list of your project and generate its report. This report contains weight of rebar and volume of concrete of total structure by type of elements and by size of rebar and also by story sequence as seen in the following image.

These reports can be saved in text format or printed directly by software.

EM ETABS MATE - Estimated Structural Material Report According to Element Type
✕

Structural Material Information

Material List Calculation Parameters :

Area of Project for Calculate Material Average :	1000	m ²	Steel Bar Weight per Volume:	7850	Kg/m ³
Foundation Thickness of Project Structure :	70	cm	Concrete Weight per Volume:	2400	Kg/m ³
Rebar Overlap Length for d8 to d20:	55	x db (Bar Diameter)	Steel Bar Cost Per unit Weight :	2000	\$
Rebar Overlap Length for d22 to d32:	69	x db (Bar Diameter)	Concrete Cost Per unit Volume:	110000	\$

Structure Material List Details

```

>>>> SUMMARY OF STRUCTURE REBAR WEIGHT:
>>> Beam : Weight = 18.822 ton , Average = 18.822 kg/m2
>>> Column : Weight = 10.845 ton , Average = 10.845 kg/m2
>>> Shear Wall : Weight = 23.952 ton , Average = 23.952 kg/m2
>>> Total : Weight = 53.619 ton , Average = 53.619 kg/m2

>>>> SUMMARY OF REBAR TYPE LENGTH AND WEIGHT:
>>> Rebar d8 : Total Length = 011'811.0 m = 004.636 ton = 984.2 PCS (12m)
>>> Rebar d10 : Total Length = 015'298.7 m = 009.488 ton = 1274.9 PCS (12m)
>>> Rebar d12 : Total Length = 002'594.6 m = 002.302 ton = 216.2 PCS (12m)
>>> Rebar d14 : Total Length = 001'193.0 m = 001.442 ton = 99.4 PCS (12m)
>>> Rebar d16 : Total Length = 012'608.5 m = 019.894 ton = 1050.7 PCS (12m)
>>> Rebar d18 : Total Length = 000'374.4 m = 000.747 ton = 31.2 PCS (12m)
>>> Rebar d20 : Total Length = 003'806.7 m = 009.383 ton = 317.2 PCS (12m)
>>> Rebar d22 : Total Length = 000'126.6 m = 000.378 ton = 10.6 PCS (12m)
>>> Rebar d25 : Total Length = 001'394.4 m = 005.375 ton = 116.2 PCS (12m)

>>>> SUMMARY OF STRUCTURE COST:
Assumed Information: Project Area = 1000m2, Rebar Cost = 2000$/m2, Concrete Cost = 110000$/m3
>>> Rebar Cost : Absolute = 107 x 1e6 $ , Average = 107 x 1e3 $/m2
>>> Concrete Cost : Absolute = 46 x 1e6 $ , Average = 46 x 1e3 $/m2
>>> Total Cost : Absolute = 154 x 1e6 $ , Average = 154 x 1e3 $/m2

```

ReCalculate Materials

Save as Text File

Print Report

Close

ETABS MATE

Concrete Structure Assistant Software



Sample of output reports that printed directly by ETABS MATE software:

ETABS MATE
Model: 3.31 > Beam Section Properties

» BEAM TYPE B1
 Section : B30X35
 Dimension : Depth= 35 cm, Width= 30 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 8 cm in Beam Ends (70 cm)
 d8 @ 16 cm in Beam Middle

» BEAM TYPE B2
 Section : B30X30
 Dimension : Depth= 30 cm, Width= 30 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 8 cm in Beam Ends (60 cm)
 d8 @ 13 cm in Beam Middle

» BEAM TYPE B3
 Section : B60X35
 Dimension : Depth= 60 cm, Width= 35 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 14 cm in Beam Ends (120 cm)
 d8 @ 28 cm in Beam Middle

» BEAM TYPE B4
 Section : B35X35
 Dimension : Depth= 35 cm, Width= 35 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 8 cm in Beam Ends (70 cm)
 d8 @ 16 cm in Beam Middle

» BEAM TYPE B5
 Section : B60X40
 Dimension : Depth= 60 cm, Width= 40 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 14 cm in Beam Ends (120 cm)
 d8 @ 28 cm in Beam Middle

» BEAM TYPE B2a
 Section : B30X30
 Dimension : Depth= 30 cm, Width= 30 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d8 @ 6 cm in Beam Ends (60 cm)
 d8 @ 6 cm in Beam Middle

» BEAM TYPE B1a
 Section : B30X35
 Dimension : Depth= 35 cm, Width= 30 cm
 Rebar Cover : 4 cm
 Flexural Reinforcement :
 Top Longitudinal Rebar Detail= 3d16 TOP
 Bot Longitudinal Rebar Detail= 3d16 BOT
 Shear Reinforcement :
 d10 @ 8 cm in Beam Ends (70 cm)
 d10 @ 16 cm in Beam Middle

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ETABS MATE

Concrete Structure Assistant Software



How to Activate Your ETABS MATE Software

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In the trial mode, you can see the features and abilities of the software by opening the "**Demo Sample**" from **File** menu of the software. By demo sample model you can evaluate the program performance of different parts of the software.

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Concrete Structure Assistant Software

To get more information and download the trial version of ETABS MATE software and its drawing samples in AutoCAD file format, please visit the official web site of software.

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