## Q

## If I have a multi-diaphragm building like twin tower building, how can I draw the rebar and import the BOM at midas DShop?

A

You can see the flowchart below to solve this problem. Then, you can see the explanation after see the flowchart.



First of all, you must design the rebar of your structure. After you design the structure using the design code, you can select all the result design and click the update rebar function. Do this step for the beam and column element.



Picture 1: Update rebar for Beam Element.

de : TW rted by		D 100 Member Property	U	nit: kgf	, (	m	Primary O SECT	Sorting Op	tion IEMB					
IEMB		Section	fc	fy		Pu	Mc				Vu.end	Rat-V.end	As-H.end	H-Rebar.end
ECT	SEL	Bc Hc	Height	fys	LCB	Rat-P	Rat-M	Ast	V-Rebar	LCB	Vu.mid	Rat-V.mid	As-H.mid	H-Rebar.mic
0	-	1C1	280.000	4200.00	~	18728.7	1426664			9	10914.5	0.305	15.445	2-D10 @20
1		40.00 40.00	350.00	2800.00	1 '	0.897	0.902	20.280	4-2-025	3	13103.5	0.709	5.0000	2-D10 @150
0	-	1C2	280.000	4200.00	40	25267.7	1283721	20.280	4-2-D25	10	12571.2	0.272	15.488	2-D10 @20
2		45.00 45.00	350.00	2800.00	10	0.605	0.609			4	15277.4	0.665	5.6250	2-D10 @150
0	-	2C1	280.000	4200.00	9	15862.1	1817722	30.420	6-3-D25	9	13743.7	0.384	19.449	2-D10 @20
11	I.	40.00 40.00	350.00	2800.00		0.950	0.947			9	13743.7	0.843	5.8484	2-D10 @150
0	-	2C2	280.000	4200.00	9	19093.3	1482527	20.280	4-2-D25	6	12739.4	0.275	15.696	2-D10 @20
12		45.00 45.00	350.00	2800.00		0.842	0.824			7	13765.5	0.664	5.6250	2-D10 @150
0	-	3C1	280.000	4200.00	7	6026.99	1329869	30.420	6-2-D25	10	11971.8	0.334	16.942	2-D10 @20
21	N.	40.00 40.00	350.00	2800.00		0.722	0.716			10	11971.8	0.738	5.0000	2-D10 @150
0	-	3C2	280.000	4200.00	9	9530.00	1389269	20.280	4-2-D25	7	10799.7	0.233	13.306	2-D10 @20
22		45.00 45.00	350.00	2800.00		0.886	0.868			10	11467.4	0.551	5.6250	2-D10 @150
0	-	4C1	280.000	4200.00	-	17475.0	1887085	40.560	8-3-D25	7	16009.8	0.447	22.656	2-D10 @20
31	I.	40.00 40.00	300.00	2800.00	1 '	0.904	0.905			7	16009.8	0.981	9.0274	2-D10 @150
0		4C2	280.000	4200.00	0 9	18839.1	1610012	20.280	4-2-D25	10	15499.5	0.335	19.096	2-D10 @20
32		45.00 45.00	300.00	2800.00		0.887	0.906			10	15499.5	0.758	5.6250	2-D10 @150
0		5C1	280.000	4200.00	9	14090.7	1754067	30.420	6-3-D25	10	15506.6	0.433	21.944	2-D10 @20
41		40.00 40.00	300.00	2800.00		0.941	0.939			10	15506.6	0.953	8.3889	2-D10 @150
0		5C2	280.000	4200.00	9	15391.1	1803608	30.420	6-3-D25	9	15596.6	0.337	19.216	2-D10 @20
42		45.00 45.00	300.00	2800.00		0.743	0.727			9	15596.6	0.783	5.6250	2-D10 @150
Connec Select	t Moo	Unselec	t All	Re-calc	ulation		Result V	iew Option	ONG					
Graph	ic	Detail.		Summary.	•••	<<								

Picture 2: Update rebar for Column Element.

Second, you can define new material properties which same with the concrete material. Thus, you can click add and choose the User Defined material. In the material code section, you can choose the concrete material code and the specification of the concrete material (the strength of material).

laterial Data				>				
General Material ID 2		Name	C280-US					
Elasticity Data								
Type of Design	efined V	User Defined						
		Standard	CNS560(RC)	~				
-		DB	C280	~				
		Product		~				
	Defined	Concrete						
		Standard		$\sim$				
Type of Material	rthotropic	c	ode	$\sim$				
	i u lou opic	DB		$\sim$				
User Defined								
Modulus of Elasticity :	2.4923e+05	kgf/cm^2						
Poisson's Ratio :	0.167	r						
Thermal Coefficient :	5.5556e-06	1/[F]						
Weight Density :	0.0024 kgf/cm^3							
Use Mass Density:	2.447e-06	kgf/cm^3/g						
Concrete								
Modulus of Elasticity :	0.0000e+00	<sup>)0</sup> kgf/cm^2						
Poisson's Ratio :	0	0						
Thermal Coefficient :	0.0000e+00	0 1/[F]						
Weight Density :	0	kgf/cm^3						
Use Mass Density:	0	kgf/cm^3/g						
Plasticity Data								
Plastic Material Name	NONE	~						
Inelastic Material Properties	for Fiber Model	Non-dissinativ	e element					
Concrete None		Steel No	ne					
Use Mass Density: Plasticity Data Plastic Material Name Inelastic Material Properties Concrete None	0 NONE for Fiber Model (	kgf/cm^3/g v & Non-dissipativ Steel Nor	e element	~				
Thermal Transfer								
Specific Heat :	0	Btu/kgf*[F]						
Heat Conduction :	0	Btu/cm*hr*[F]						
Damping Ratio :	0							
	0	к	Cancel	Apply				

After define the user define material, you can start to change the material based on the module. For example, I have three modules (Base module for 1F~4F, A module for 5F~Roof, and B module for 5F~Roof). I want to have the drawing and BOM of my Base Module structure, thus, I change the material of A and B module structure to User Define material. Then do the perform analysis and export to the midas drawing file (mgn File). After that you can import the file to the DShop. Repeat this step to import the result of A and B module.





Picture 3: Import the drawing result of Base Module Structure.





Picture 4: Import the drawing result of A Module Structure.



Picture 4: Import the drawing result of B Module Structure.