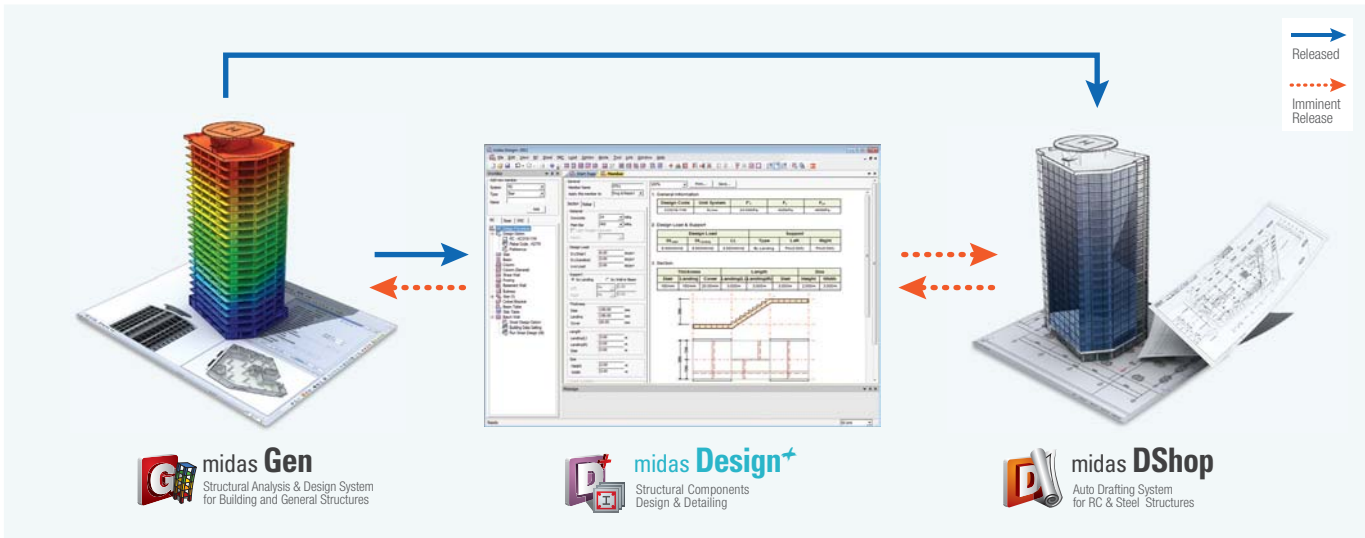




## Structural Component Design & Detailing

midas Design+ is a collection of handy structural component design and detailing tools, which are easy to use and speed up the day-to-day design process. midas Design+ is developed to be simple, fast and accurate. It enables engineers to systematically and consistently manage design reports.

### MIDAS Solutions for B.I.M.



## User Oriented Output & Results

midas Design+ provides high quality output and concise documentation, including drawings and a material quantity takeoff.

**MS-Word Report**

**Detail calculations**

$$\rho_{min,11} = \frac{0.25\sqrt{f_{ck}}}{f_y}, \quad \rho_{min,12} = \frac{1.4}{f_y}$$

$$\rho_{min,1} = \max(\rho_{min,11}, \rho_{min,12}) = 0.0035$$

$$\rho_{min,2} = \frac{4}{3} \frac{M_u}{\phi f_y b d (d-a/2)} = 0.0072$$

$$\rho_{min} = \min(\rho_{min,1}, \rho_{min,2}) = 0.0035$$

$$\rho_{st} = 0.85 \beta_1 \left( \frac{f_{ck}}{f_y} \right) \left( \frac{\epsilon_c}{\epsilon_c + 2(f_y/E_s)} \right) = 0.0186$$

$$\rho_{min} = \rho_{st} = 0.0186$$

**Summarized Report**

Section	Top Bar	Bot Bar	Stirrups
11C4(B45)	100	100	100

**MEMBER NAME : 11C4(B45)**

- 1. General Information:
  - (1) Design Code: ACI318-11
  - (2) Unit System: SI
- 2. Material:
  - (1)  $f_c$ : 3,000
  - (2)  $f_y$ : 40,000
  - (3)  $f_y$ : 40,000
- 3. Section:
  - (1) Section Size: 21.82 x 27.36
  - (2)  $L_x$ : 11.12
  - (3)  $L_y$ : 11.12
  - (4)  $K_x$ : 1.000
  - (5)  $K_y$ : 1.000
  - (6) Spacing: 0

## 3 Key Features of midas Design+

### Intuitive Graphic Interface for efficient design work

- Simple mode for individual components design
- Project mode for member groups by projects
- Compatible with CAD, MS Word & Excel

### Interface with midas Gen

- Seamlessly integrated with FE analysis software midas Gen  
(3D structural analysis software for building and general structures)

### Auto Drafting & Editing Functionality

- Auto-generation & Editing of member design results
- Built-in 2D CAD drawing functionality

## Product Range

midas Design+ consists of a range of software modules for structural engineers to streamline the process of design and detailing into one design operation providing a competitive edge.



### RC Design

Slab  
Slab long term deflection  
Beam  
Beam long term deflection  
Column  
Column (Irregular)  
Shear Wall  
Shear Wall (Irregular)  
Spread Footing  
Basement Wall  
Buttress  
Stair  
Corbel



Structural component  
design & detailing tools

### Steel Design

Beam & Column  
Base Plate  
Bolt Connection  
Crane Girder  
Purlin & Girth  
Web Opening

### SRC Design

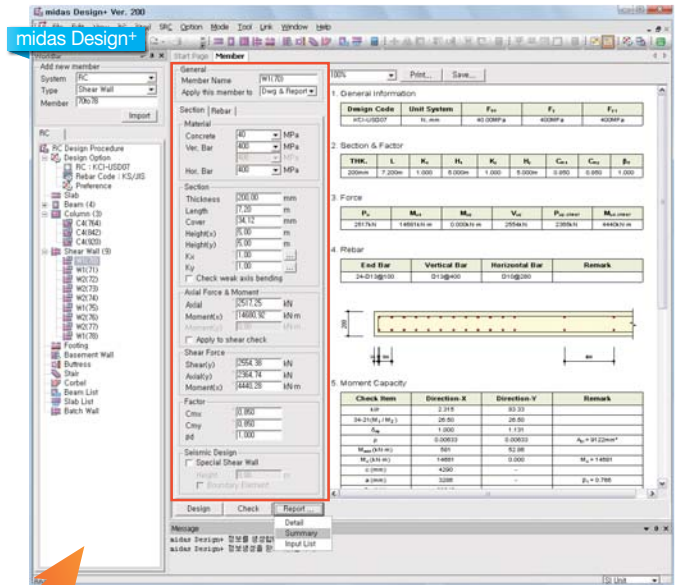
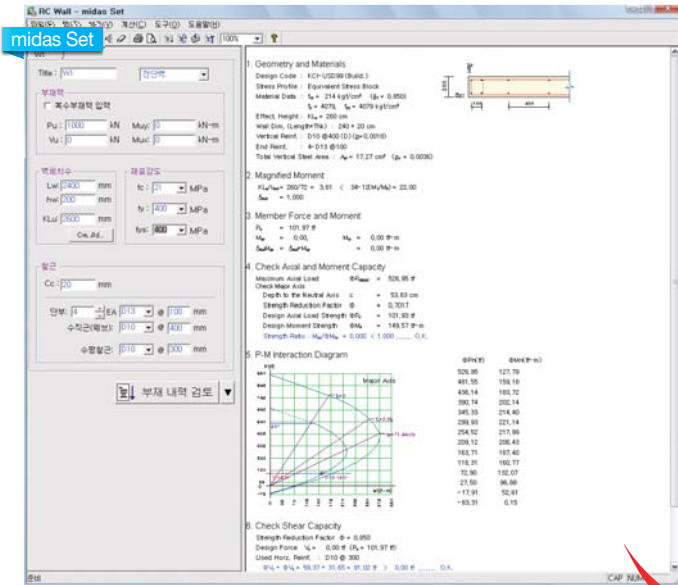
Composite Beam  
Column  
CFT Column

### Code Design

ACI 318-08, 11  
AISC-LRFD 05, 10  
Eurocodes

## Simple Mode

Handle project changes easily and efficiently.



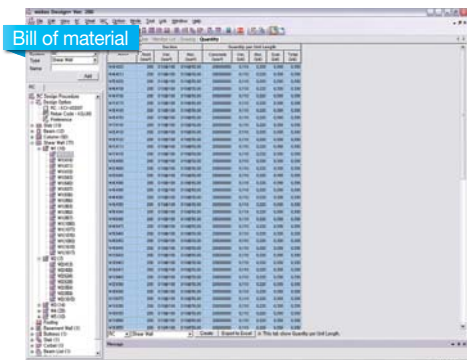
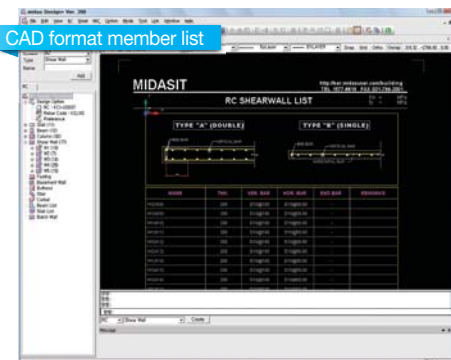
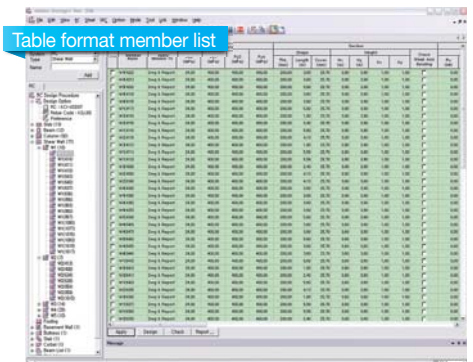
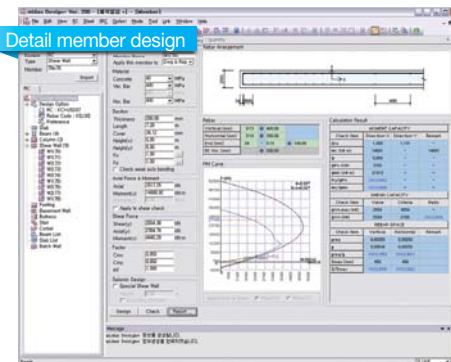
Simple Mode

Significantly improved usability by offering "Simple Mode" over "midas Set" in a similar work environment

## Project Mode

Check floor plans and intuitive design results swiftly using "Project Mode".

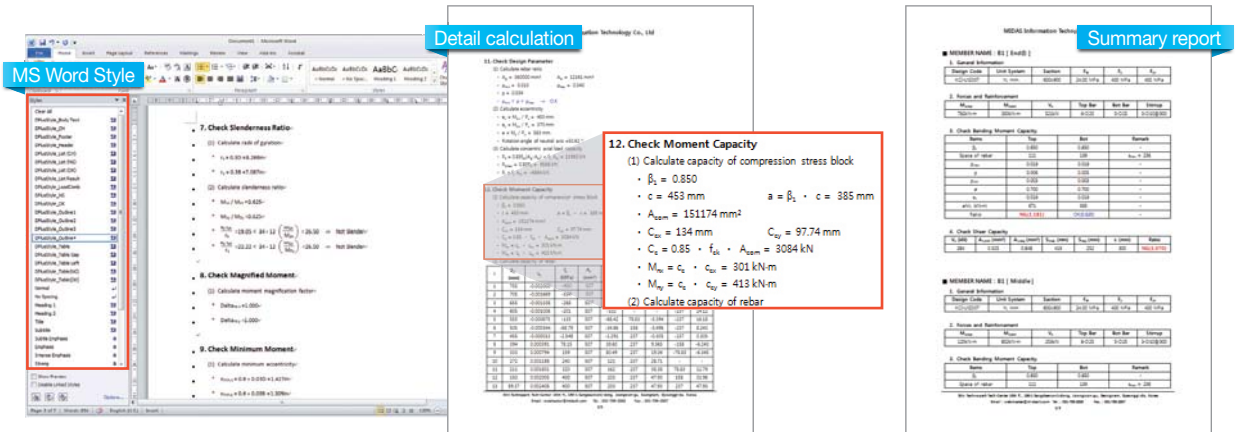
- Various reports
  - Detail member design
  - Table format member list
  - CAD format member list
  - Bill of materials
- Beyond simple components design, Project Mode generates high quality reports including BOM



# Streamline the Everyday Design Process – never been so easy & transparent

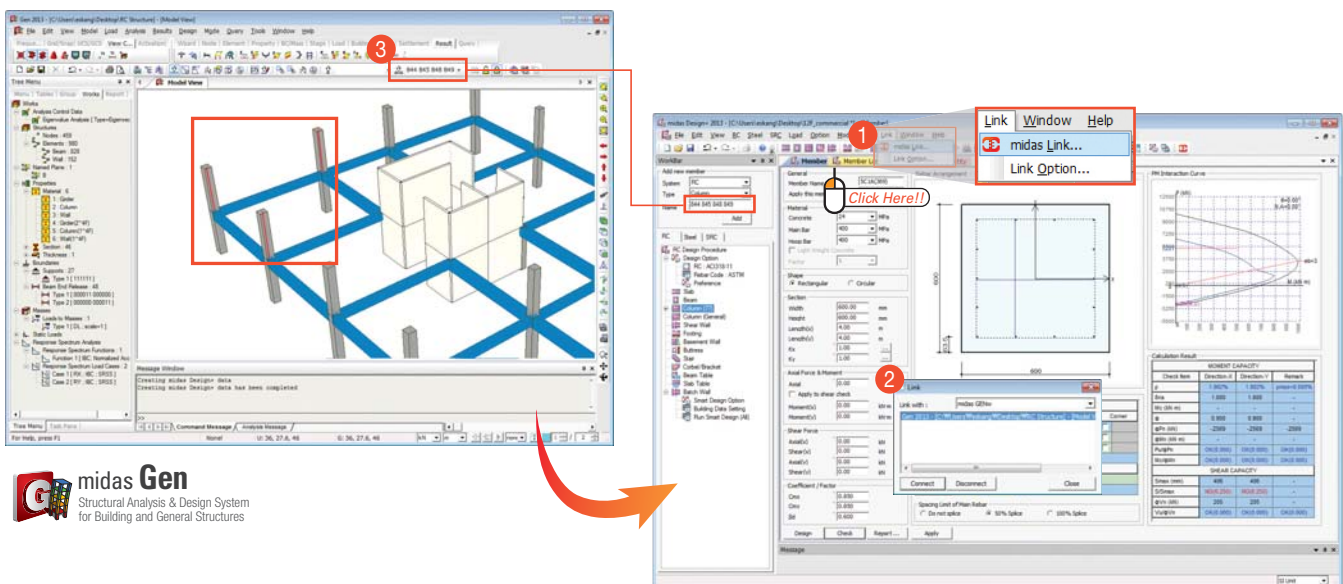
## Accurate Calculation Results & High Quality Output

- Detail calculation reports for structural engineers
- Summary report with input data for checking
- Customization of the Word format report by the user



## Interface with midas Gen

Seamlessly integrated with FE analysis software midas Gen. (3D structural analysis software for building and general structures)

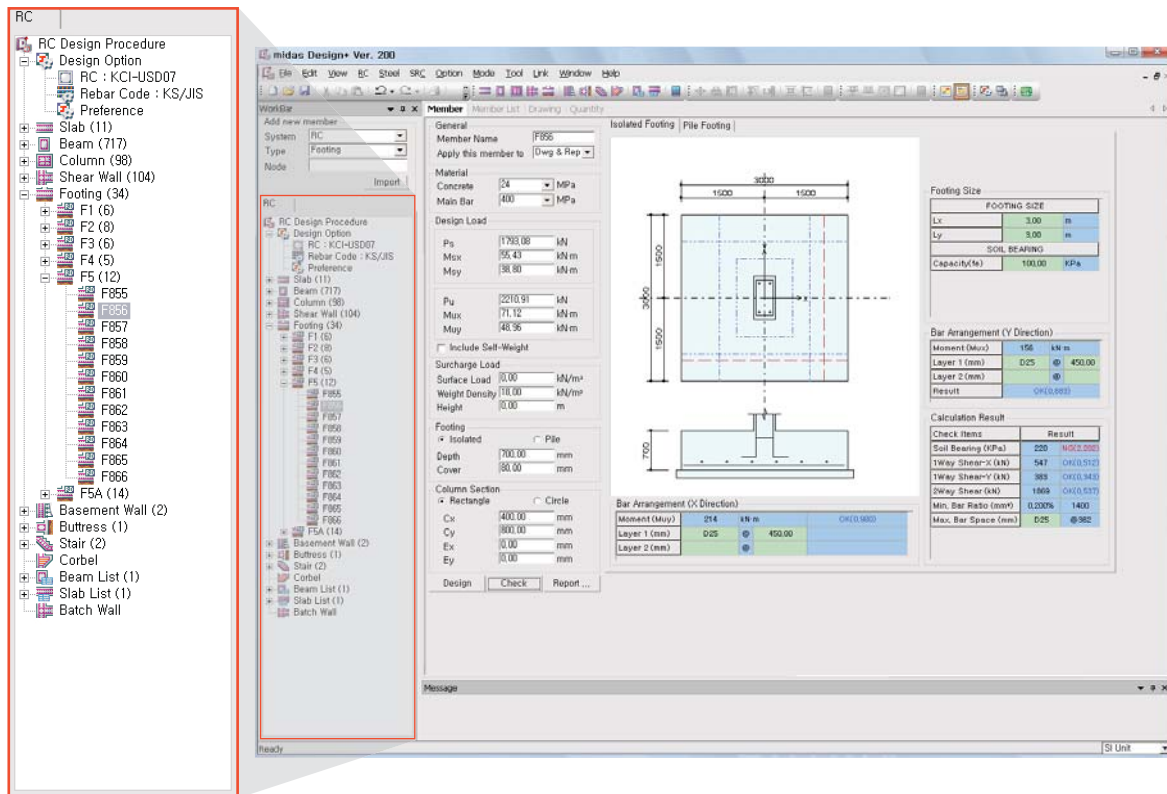






# Integrated Management System for Design Results

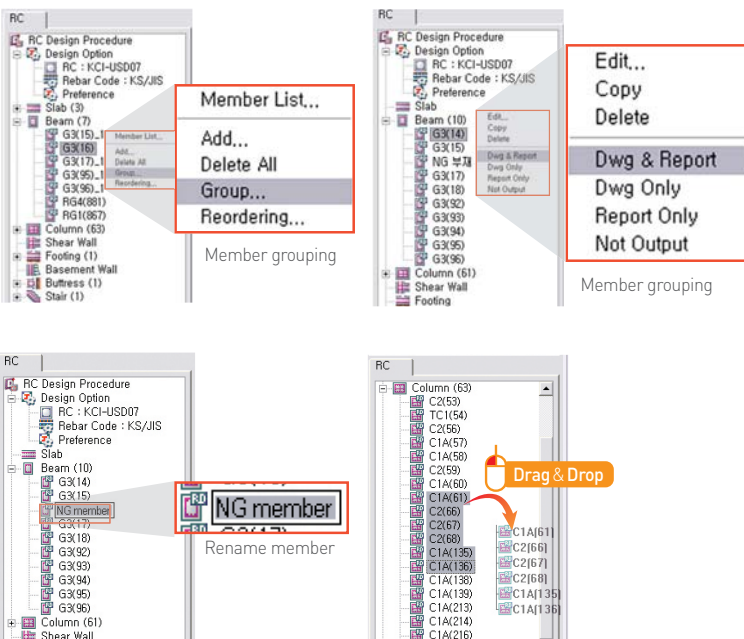
midas Design+ enables the engineers to increase their efficiency and productivity with integrated project management of design results.



Project management

## Works Tree

Using the various features of the Works Tree menu, the users can manage all RC design results systematically.



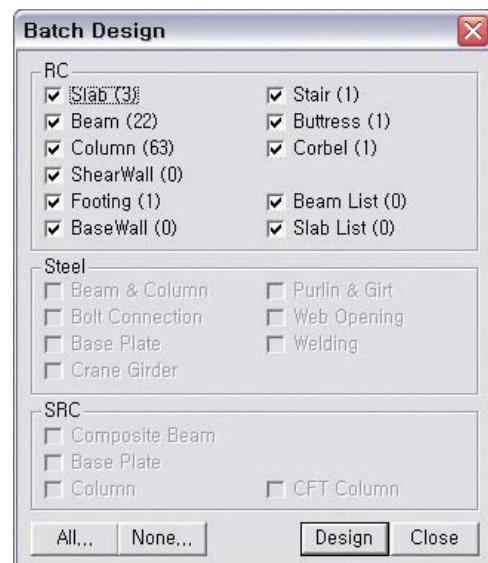
Member grouping

Member grouping

Rename member

## Batch Design

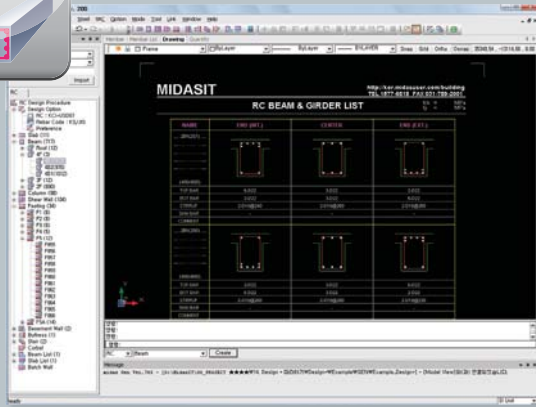
Design all the members using the Batch Design function.



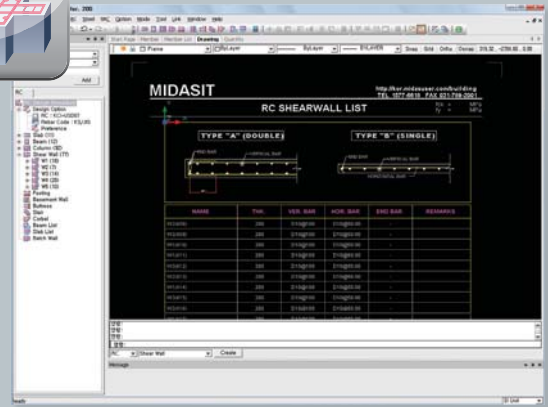


# Auto Reinforcement Drawing in DWG format

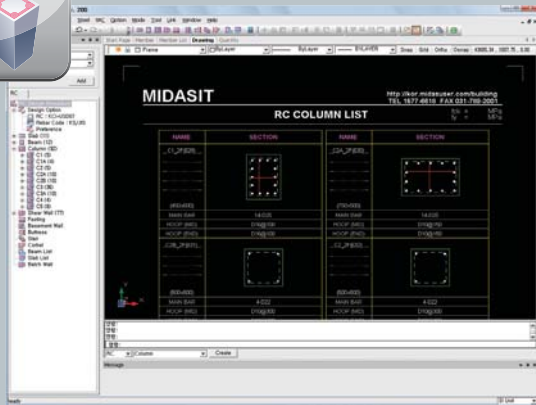
Beyond component design tools, midas Design+ provide high efficient productivity with powerful auto drafting.



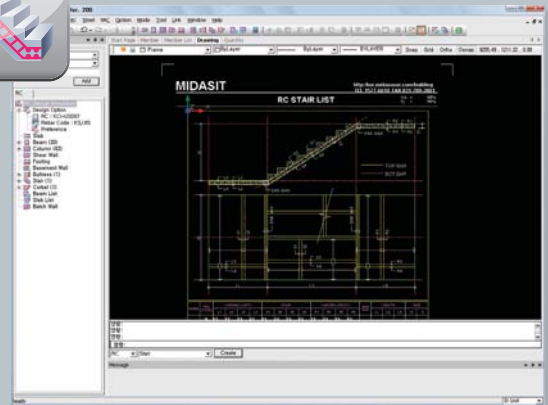
Beams



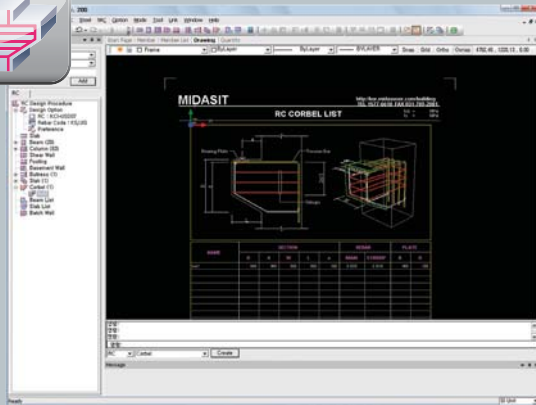
Walls



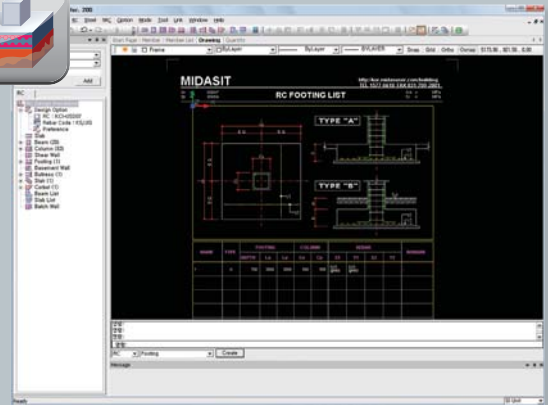
Columns



Stairs



Corbels



Footings

*Total Solutions for Design & Drafting !*