

Why Build-Master ?

A complete package for Analysis, Design, Drawing & Estimation

Salient Features	Build-Master Software	Other Software
Graphical Plan Input		
1. Defining Building Project	<p>Single Line plan at each level is drawn. Number of levels in Building is defined. Program generates 3D Model from these plans. Building Model is also generated with varying plans and Floating Columns.</p> <p>Plan drawing prepared in CAD package can be read directly.</p>	<p>3D Model of the Building Plan has to be created by user graphically from scratch. Vertical members are to be added manually.</p> <p>Floating Columns are to be added carefully by adding nodes in the members.</p>
2. Auto Numbering of Beams	<p>Program will auto number the Beams at each Floor Level starting from B1 as it is done in working drawings. User can also rename Beam numbers as B1a, B1b etc.</p>	<p>Only Members are present in the 3D model. They are numbered in the order they are drawn. User has to take care manually.</p>
3. Concept of Beams & Members	<p>One Beam can have multiple parts called as Members. Analysis is done in terms of members. During RCC Design forces of all members forming a beam are used to design Beam as one entity. Support Top steel is calculated Beam-ends only. Drawing / Estimation is done Beam wise.</p>	<p>No concept of Beams. All elements are Members only. Design is done member wise and not one beam as a whole.</p> <p>Gives top steel at top at every junction of member ends.</p>
4. Auto Numbering of Slabs	<p>Program will auto number the Slabs at each Floor Level starting from S1 as it is done in working drawings. User can also rename the Slab numbers as S1x etc. Slabs are Designed at each floor level.</p>	<p>No separate elements can be numbered as slabs. Enclosed Areas are to be defined by user for calculating the Floor Loads. Design of Slabs is absent.</p>
5. Distribution of Slab Loads	<p>Slab loading is exactly transferred on the adjacent beams as UDL, Triangular or Trapezoidal loads, depending on the slab spanning.</p>	<p>Slab spanning cannot be defined. Floor load is transferred on the adjacent members as equivalent UDL load only.</p>
6. Column Flush positions	<p>Program has a facility to define Columns as Flush on Left or Right, Top or bottom side with respect to Beams and Walls. This data is used while preparing RCC Working plan with Column Centerlines.</p> <p>Wide Columns are defined with 3 nodes in plan, one at center & other 2 at ends.</p>	<p>No provision of defining flush positions of columns.</p> <p>User has to give offset of column ends from column center manually.</p> <p>RCC working plan drawings are not prepared.</p>
7. Auto Wall Load Calculations	<p>Wall Loads on Beams are calculated by program, using the floor height (after deducting the beam depth), wall thickness and density of wall type.</p>	<p>User has to calculate wall loads manually and enter them in the beam data.</p>
8. Building Elevation 3D View	<p>Program creates 3D View of Building from the plan data, showing beams, slabs, columns & walls for data checking.</p>	<p>Since Wall height, thickness data is not available; walls are not shown in the elevation.</p>

Frame Analysis	Build-Master Software	Other Software
1. Horizontal Loads	Earthquake & Wind Loads are calculated automatically from plan data, and Distributed along building height.	User has to calculate Horizontal Loads manually and applied them at appropriate nodes.
2. Floor Diaphragm Action	Rigidity of the floor slabs is considered. Shear Walls can be considered in model. Center of Gravity, Center of stiffness of each floor are calculated automatically for considering eccentricity and torsion.	User has to define master and slave nodes manually. User has to calculate eccentricity at each floor and calculate torsion moments manually.
3. Auto Load Combinations	Program automatically generates 25, 61 or 205 Load combinations out of Dead, Live, Earthquake and Wind Loads.	User has to define and enter the Load Combinations manually.
4. Data Compatibility	Converter Utility BM2STD is available to write data generated by Build-Master for 3D model in STD file formats.	Converted data can be directly read for carrying out the analysis of 3D model.
RCC Design		
1. Floor wise Design	Design of Beams & Slabs at each floor level is done separately. Any component can be redesigned with interactive mode. Trial sizes given by user are increased if they are not sufficient while designing.	All Members of 3D model are designed together. Member wise Interactive design is not available. User defined member sizes are not increased by program.
2. Beam Design	Flange effect is considered from plan data. Bar combinations are selected from User-defined list of bar area of steel.	No separate list can be defined of Bar combinations for bars in beam bottom, beam top, column etc.
3. Slab Design	Slabs are designed as per spanning Cantilever, One-way or Two-way types. Slab can be marked as Sunk. Continuity of Slab edges comes from plan data.	Slab design is not available. Slabs cannot be marked as sunk.
4. Column Design	Each column is designed from Top to Bottom as one entity. Size and steel at each level is carried below properly.	Members of one Column are designed independent of each other.
5. Footing Design	Footing design with Biaxial Moments is rigorous. Loss of contact and pressure redistribution as per code is considered for optimum design.	Footing design with Biaxial Moments is done considering contact with soil at each corner. Gives larger size of footings.
6. Schedule Drawings	Program creates Schedule Drawings from RCC design of Beams, Columns, Slabs and Footings.	Design output is not in Drawing form.
7. Modify Schedule on Plan	Design Schedule Data namely, sizes and steel bar combinations & bar areas are plotted on single line plan for editing.	Design output values cannot be viewed on plan layout.
8. Quantity Estimation	Quantities are calculated for concrete, formwork, Steel with dia. wise break-up, Brickwork, Plaster, Flooring as well.	Detail Quantities are not available.