

Compare holoBIM with other similar software applications

	Phase / Task	Programs		
		holoBIM	A	B
A. INPUT				
	Input definition of the structural frame is performed by using the physical components , columns, beams, slabs, foundation	√		
	During input definition, concurrent real time 3D inspection of the structural frame is available.	√		
	Modification of the components is possible in section, with automatic real time adjustment of the structural frame	√		
	Capability of Import architectural floor plans in dwg/dxf format to use as background for input definition.	√		
B. FORMWORK DETAILING				
	Automatic creation of all following outputs using just input A:	√		
	Automatic creation of sections	√		
	Automatic placement of dimensions both in floor plans and sections	√		
	Automatic creation of complete construction drawings including 2D plans, sections and 3D images of the structural frame	√		
	Automatic concrete and formwork quantity estimation and take-off catalogues	√		
	Automatic adjustment of all preceding outputs on structural frame modification	√		
C. CALCULATIONS USING LINEAR MEMBERS				
	Automatic creation of all following outputs using just input A:	√		
	Automatic classification, slenderness, analysis and design of slabs	√		
	Automatic creation of the space frame and loading model	√		
	Automatic calculation of modes and modal response spectrum analysis.	√		
	Automatic creation of independent loadings and space frame analysis for all loading cases	√		
	Automatic design for bending, shear and torsion of all members including results from all loading combinations	√		
	3D visual inspection on nodes, members, diaphragms, rigid bodies, deformations, stresses, loadings, soil stresses	√		
	Automatic capacity design for bending of all joints and for shear of all beams	√		
	3D visual inspection on the real reinforcement . Modification of the real reinforcement with automatic adjustment of the respective capacity design	√		
	Automatic analytical and brief printouts of all data and results	√		
	Automatic creation of all drawings	√		
	Analytical material quantity take-off including sketches for confirmation purposes	√		
	Automatic adjustment of all preceding outputs on structural frame modification	√		

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D. CALCULATIONS USING FINITE ELEMEMTS				
	Automatic creation of all following outputs using just input A:	√		
	Automatic modelling of slabs and shear walls as parts of the entire structure using triangular finite elements	√		
	Automatic creation and solution of the complete system of linear equations using multi-threaded algorithms	√		
	3D visual inspection on all analysis results using contours and stress resultant diagrams in both x and y direction	√		
	Automatic adjustment of all preceding outputs on structural frame modification	√		
E. REINFORCEMENT DETAILING				
	Automatic creation of all following outputs using just input A:	√		
	Automatic creation of all formworks including the reinforcement	√		
	Drawing modification . Creation of detailed drawings of continuous beams	√		
	Automatic creation of the real reinforcement. Quantity take-off catalogues for ordering the reinforcement	√		
	3D visual inspection on the real reinforcement	√		
	Automatic analytical rebar and stirrup quantity take-off .	√		
	Automatic adjustment of all preceding outputs on structural frame modification	√		
F. TECHNOLOGICAL FEATURES				
	Import-export of dwg/dxf format files	√		
	Import-export of XML format files	√		
	The software is entirely written in C++ and OpenGL	√		
	Multi-threading algorithms	√		
	64-bit configuration kai multi-language support	√		
	Over 25 fps providing real-time 3D animation for medium scale buildings or entire floors of skyscrapers	√		
	Stereoscopic user interface providing natural interaction	√		
	Real-time Stereoscopy	√		
	Real-time focusing for natural eye adjustment on the selected object	√		
	Ray tracing for generating very high quality images including shadow effects	√		
	Ray tracing stereoscopy for generating very high quality stereoscopic images.	√		
	Speech capability of selected objects	√		