

Stabicad 24.02 release

Release Notes United Kingdom (UK)

Highlights of the 24.02 release

- Calculate heating & cooling systems up to 30x faster with the brand new heating & cooling CIBSE certified cloud calculation engine!
- We have improved the workflow for solving clashes between systems or reference elements!

Stabicad for Revit

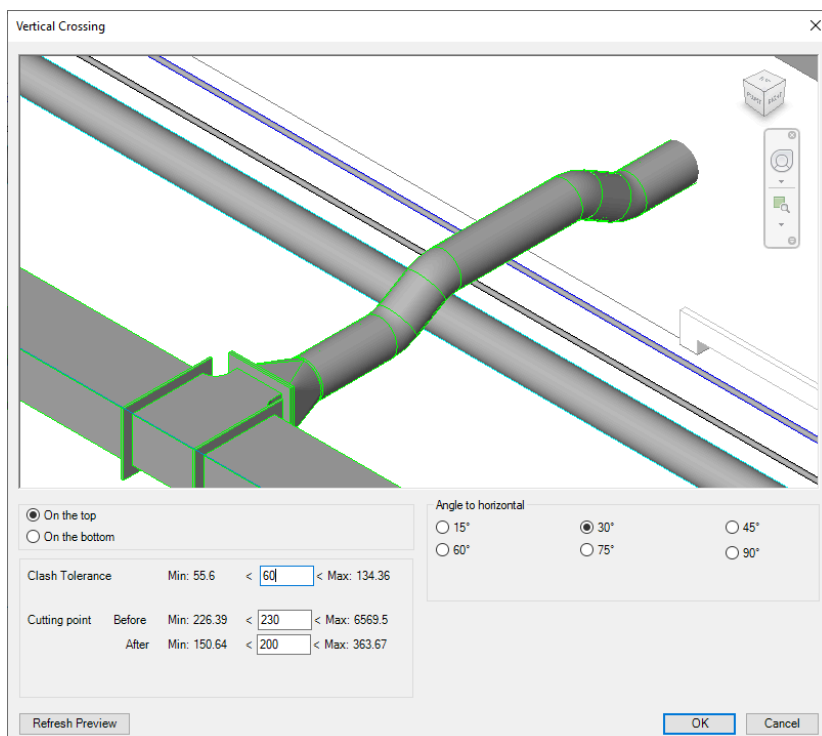
■ The workflow to solve clashes between system(s) and reference elements have been optimised!

Clashes occur between different systems and also between systems and reference elements. The solve crossing feature can solve the clash by making a jump over/under the reference element or making a bypass left or right around.

The following workflow need to be followed:

1. Select the solve crossing feature in the Stabicad Mechanical ribbon or palette (Modify tab of each discipline)
2. Select the crossing elements from the system which need to go around or above/below the reference elements
3. Select the reference element(s) which should be avoided
4. The solve crossing feature will pop-up:
 - a. Choose the angle of the jump/bypass
 - b. Specify the clash tolerance (distance between the crossing elements and reference element)
 - c. Specify the before and after value to define the distance for the cutting points
 - i. After changing one of these values, click on refresh view to see the new solution
5. Click on place to confirm the solution to solve the clash as specified.

Be aware that solving crossings is only possible for elements which are perpendicular crossing each other and are not sloped.



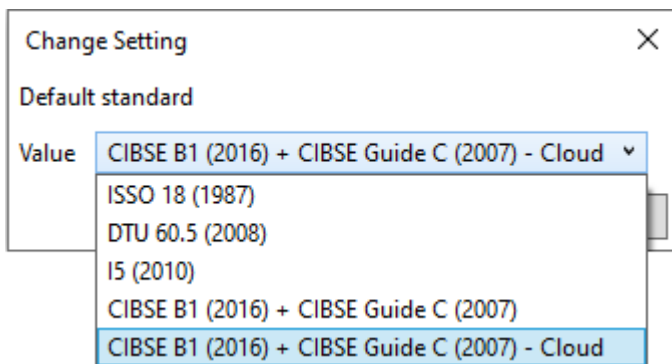
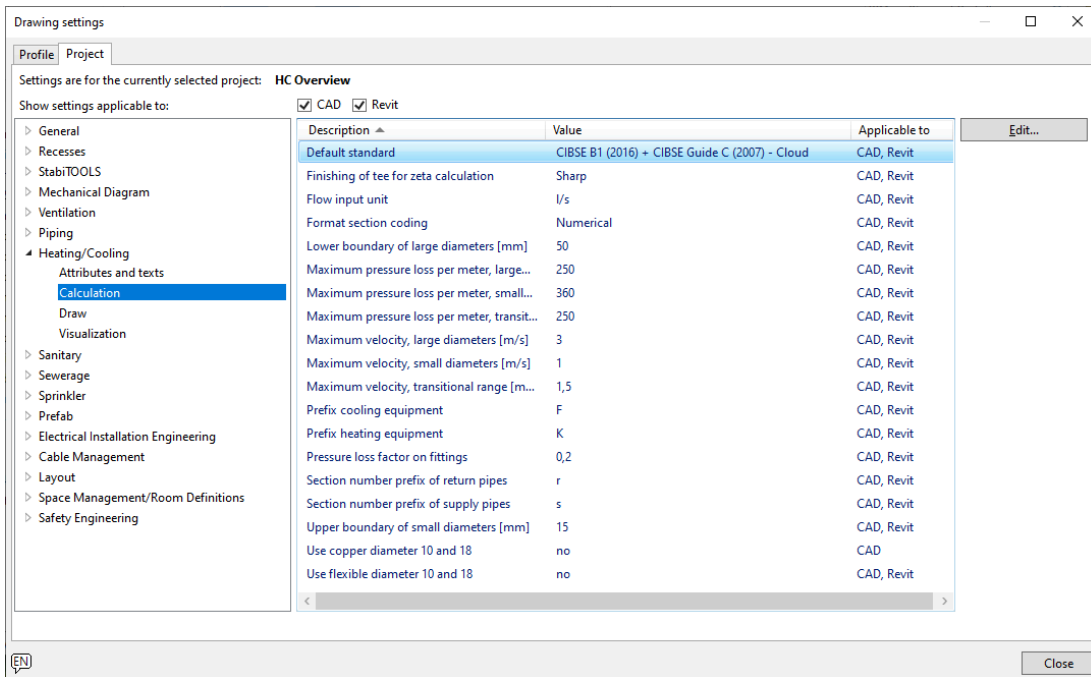
- **The performance of the Openings monitor has been improved.**

After creation of the openings, the openings monitor is used to manage the openings. The performance of loading the monitor is now 10 times faster!

Stabacad for Revit | Mechanical → Heating/Cooling

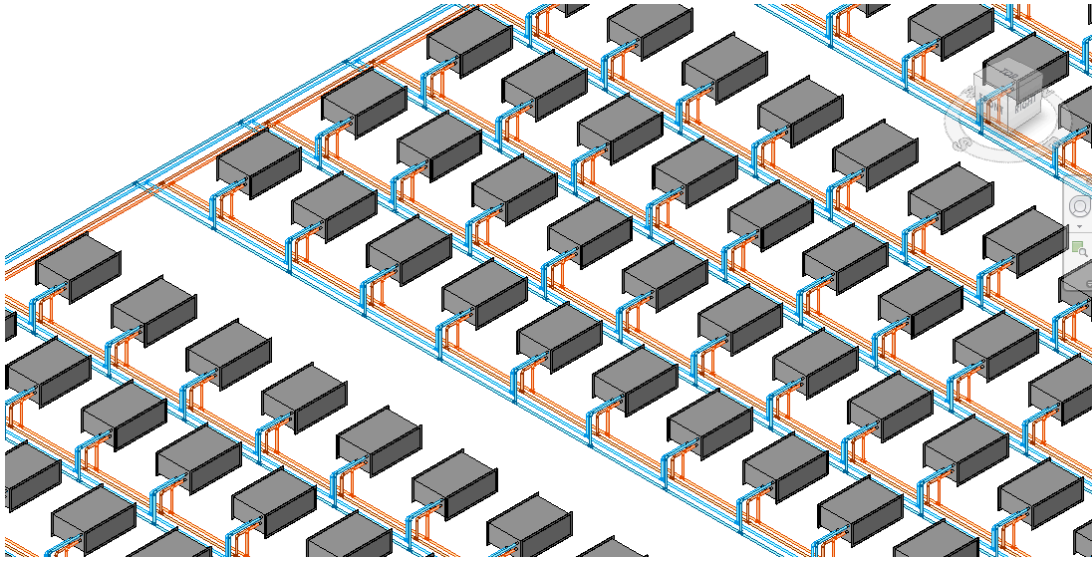
- **You can calculate your heating & cooling systems up to 30x faster with the brand new heating & cooling CIBSE certified cloud calculation engine!**

You can enable this new calculation engine via StabiBASE → Drawing Settings → Heating/Cooling → Calculation:

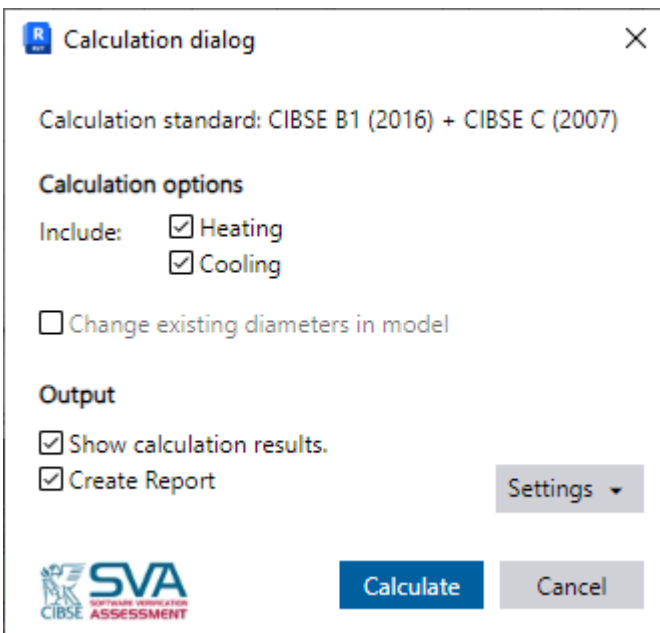


After you have set up this standard as the active standard, the workflow will be exactly the same as before. You can click on the calculation button either through the ribbon or the palette center to start the calculation.

The checking of the model is significantly faster. An example model with 768 fancoil units connected to both heating & cooling completes the check model step in 55 seconds!



After the check completes you will see the corresponding calculation dialog:



Upon completion of the calculation you will be presented with an interactive overview, grouped by each pipe run as well as a report.

Consumer / section	Inner / outer diameter (mm)	Velocity (m/s)	Mass flow (kg/h)	Volume flow (l/s)	Pressure loss pipe (Pa/m)	Pressure loss pipe (Pa)	Static Pressure loss (Pa)	Pressure loss fitting/eq (Pa)	Total pressure loss (Pa)	Initial pressure (Pa)	End pressure (Pa)	Control Pressure (Pa)
									6302511 1.0			
F4			120.72	0.03		-1153.43		34.06	-1119.37			41443517 2.41
Supply												
S1545- S1546	16.0 / 21.3	0.16	120.72	0.03	81.0	61.5	3741.1	6370.2 / 0.0	10172.7	52798693 0.6	5279767 57.9	0.0
Return												
R1546- R1545	16.0 / 21.3	0.16	120.72	0.03	58.9	32.6	-2584.2	-5533.3 / 0.0	-8084.9	24709982 .8	2471806 7.7	0.0
									6300412 0.6			

Heating		Cooling		Devices		Balancing Valves									
Consumer / section	Inner / outer diameter (mm)	Velocity (m/s)	Mass flow (kg/h)	Volume flow (l/s)	Supply / return temperature (°C)	Dimensioned locked	Pressure loss per meter (Pa/m)	Total static pressure loss (Pa)	Total pressure loss fittings/eq (Pa)	Total pressure loss (Pa)	Initial pressure (Pa)	End pressure (Pa)	Control pressure (Pa)		
* K769			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	0.0		
* K768			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	71.8		
* K767			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	313.0		
* K766			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	817.2		
* K765			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	1661.1		
* K764			128.85	0.04	75.0 / 65.0		0.00	191.3	40.4	231.6	0.0	0.0	2991.4		
* K763			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	4633.5		
* Supply															
* Return															
* K762			128.85	0.04	75.0 / 65.0		0.00	573.8	40.4	614.2	0.0	0.0	6934.1		
* Supply															
S1-52	16.0 / 21.3	139.82	98954.90	28.11	75.0	No	9701865.33	-2868.8	7405460.4	38831889.7	566272015.1	527440125.4	0.0		
S2-550	16.0 / 21.3	135.45	95862.56	27.23	75.0	No	14782667.02	0.0	375903.9	20628157.7	527440125.4	506811967.7	0.0		
S50-598	16.0 / 21.3	131.08	92770.22	26.35	75.0	No	13844753.26	0.0	349944.2	19317256.1	506811967.7	487494711.5	0.0		
S98-5146	16.0 / 21.3	126.71	89677.88	25.48	75.0	No	12937576.36	0.0	324914.9	18049394.5	487494711.5	469445317.0	0.0		
S146-5194	16.0 / 21.3	122.34	86585.54	24.60	75.0	No	12061136.32	0.0	300816.2	24061254.7	469445317.0	445384062.3	0.0		
S194-5242	16.0 / 21.3	117.97	83493.20	23.72	75.0	No	11215433.14	0.0	277647.8	15642791.2	445384062.3	429741271.1	0.0		
S242-5290	16.0 / 21.3	113.60	80400.86	22.84	75.0	No	10400466.82	0.0	255409.9	14504049.5	429741271.1	415237221.6	0.0		
S290-5338	16.0 / 21.3	109.23	77308.52	21.96	75.0	No	9616237.36	0.0	234102.5	13408347.7	415237221.6	401828873.9	0.0		
S338-5386	16.0 / 21.3	104.86	74216.18	21.08	75.0	No	8862744.77	0.0	213725.5	12128430.7	401828873.9	380610443.2	0.0		
S386-5434	16.0 / 21.3	100.49	71123.84	20.21	75.0	No	8139989.04	0.0	194279.0	11346064.0	380610443.2	369264379.2	0.0		
S434-5482	16.0 / 21.3	96.12	68031.50	19.33	75.0	No	7447970.17	0.0	175763.0	10379482.1	369264379.2	358884897.1	0.0		
S482-5530	16.0 / 21.3	91.75	64939.16	18.45	75.0	No	6786688.16	0.0	158177.4	9455940.2	358884897.1	349428956.9	0.0		
S530-5578	16.0 / 21.3	87.38	61846.81	17.57	75.0	No	6156143.02	0.0	141522.2	12289124.0	349428956.9	337159833.0	0.0		
S578-5626	16.0 / 21.3	83.02	58754.47	16.69	75.0	No	5556334.73	0.0	125797.5	7737976.1	337159833.0	329421856.9	0.0		

Close

This new calculation engine has been CIBSE certified!

- At this moment, control calculations are possible.
- Redimensioning of the system will become available in a future update.
- Control pressures to balance the system are currently stored on the consumer.

The following situations / elements are supported:

- Rigid pipes of various materials (e.g. copper or steel) and sizes (mm, DN, inch)
- Bends, tees, reducers, end caps, couplings, connection pieces, flanges
- Boiler, combi boiler, chiller
- Panel, design, column, convactor radiators with different configurations and corresponding accessories
- Air heaters, air curtains, 2 pipe & 4 pipe ducted and non ducted fancoilunits, heating batteries, cooling batteries
- Pipe accessories that act as a resistance: Single pump, double pump, separator, sight glass, balancing valve, pressure compensated valve, control valve, ball valve, butterfly valve, globe valve, non return valve, regulator valve, test & drain valve, seismic valve, compensator, strainer, meter (with 2 connectors)
- Manifold as a distributor with all slots connected to consumers
- Manifold as a distributor with some slots free
- Manifold as a consumer with all slots free
- Non Stabicad families (they work after using the assign mechanical calculation properties functionality)

The following situations / elements are not (yet) supported:

- Flexible pipework
- Bendable pipe work. This can be calculated but results are based off rigid pipework
- Systems without a boiler / chiller
- Saddle / Weld connections
- Six way valves
- Manifold used as a consumer and distributor at the same time
- Induction diffusers
- VAV boxes
- Meters with a single connector