

LoopCAD® is the premiere software for the creation of professional quality designs and circuit layout drawings for radiant heating and snowmelt systems. LoopCAD 2021 offers many advanced design features, including ACCA®-Approved calculations for Manual J® residential heating and cooling loads in the **MJ8 Edition**. LoopCAD is the easiest, most powerful radiant heating design tool available.

Download the free 30-day trial at:

[www.LoopCAD.com/Downloads](http://www.LoopCAD.com/Downloads)

<b>Standard Edition</b>	<ul style="list-style-type: none"> <li>Floorplan drawing and importing (PDF, AutoCAD, JPG)</li> <li>Automated circuit generation</li> <li>Easy Freehand circuit drawing and circuit editing</li> <li>Hydronic calculations based on manual input of heat loads (<i>automated heat loss calculations not included</i>)</li> <li>Supply/Return distribution piping</li> <li>3D drawing views</li> <li>OEM Editions for detailed materials lists/quotations</li> </ul>
<b>Professional Edition</b>	<ul style="list-style-type: none"> <li>All features in Standard Edition, <i>plus...</i></li> <li>Automated heat loss calculations as you draw</li> <li>ASHRAE residential heat loss calculations</li> <li>CSA residential heating and cooling load calculations</li> </ul>
<b>MJ8 Edition</b>	<ul style="list-style-type: none"> <li>All features in Professional Edition, <i>plus...</i></li> <li>ACCA-Approved Manual J (8<sup>th</sup> Edition) residential heating and cooling load calculations</li> </ul>

## General

		Standard	Professional	MJ8
1	Create professional radiant heating circuit layout drawings quickly and easily	•	•	•
2	Perform room-by-room residential heating and cooling* load calculations as you draw		•	•
3	Perform detailed hydronic calculations	•	•	•
4	Commercial Mode with special tools for commercial projects (select Editions only)	•	•	•
5	Stand-alone program: AutoCAD <sup>1</sup> is not required	•	•	•
6	Easily create new floor plan drawings or import existing drawings (PDF <sup>2</sup> , AutoCAD, JPG)	•	•	•
7	3D Views automatically generated as you draw in 2D	•	•	•
8	Support for slab, thin slab and in-joist radiant heating designs	•	•	•
9	Make design changes in seconds - tube spacing, number of loops, pattern type and more	•	•	•
10	<b>Quick Design Mode</b> allows complete radiant designs without detailed circuit layouts	•	•	•
11	Supply/Return Distribution Piping feature	•	•	•
12	Custom Tables can be added to drawings for display of key design data	•	•	•
13	<b>NEW</b> Insert Images to help show design/project details	•	•	•
14	Support for both IP (US) units and SI (Metric) units	•	•	•
15	Drawings and design reports can be printed or exported to PDF files	•	•	•
16	Report Packages lets you assemble multiple reports into a single PDF	•	•	•
17	Notes Library lets you save and reuse frequently used notes	•	•	•
18	Saving of Equipment Report items for documenting of HVAC equipment	•	•	•
19	Export to Excel features for all key design data and materials lists	•	•	•
20	Video Tutorials and Help file get you up and running fast	•	•	•
21	Free program updates and technical support with an active subscription	•	•	•

\* Cooling loads available with CSA or Manual J calculation methods only.

## Floorplan Drawing

		Standard	Professional	MJ8
22	Importing of AutoCAD, PDF and Scanned Drawing files for use as a drawing template	•	•	•
23	Easy drawing of rooms with predefined shapes or with Freehand draw tools	•	•	•
24	Draw in-room objects that can affect circuit patterns, like stairs and cabinets	•	•	•
25	Enhanced wall tools include Curve Wall and Wall Bump-Out	•	•	•
26	Snap to outline of existing floorplan drawing ensures proper vertical alignment	•	•	•
27	Smart dimension labels automatically display dimensions and allow in-place editing	•	•	•
28	Advanced PDF Scaling option for drawings that do not display dimensions	•	•	•
29	Custom definition of joist properties	•	•	•
30	<b>NEW</b> Merge Rooms to reduce unit loads in small areas	•	•	•
31	<b>NEW</b> Easily add Clerestory Walls and Windows	•	•	•
32	<b>NEW</b> Rotate drawings temporarily for easier circuit drawing on angled floorplans	•	•	•

## Circuit (Loop) Drawing

		Standard	Professional	MJ8
33	Automatic circuit generation, even in complex room shapes	•	•	•
34	Many circuit pattern options including single and double serpentine, double serpentine with fill region, perimeter, wide-radius serpentine (in-joist), counterflow	•	•	•
35	<b>Automated Counterflow circuit patterns</b> – spiral and serpentine options	•	•	•
36	Automatically generates in-joist serpentine patterns with 2-line and 3-line options	•	•	•
37	<b>Custom Circuit Areas</b> to subdivide larger rooms and snow melt areas for optimum auto-circuit generation	•	•	•
38	Circuit lengths calculated and updated automatically	•	•	•
39	Option for circuits to go around or under obstructions (cabinets, islands,...)	•	•	•
40	Multiple tube spacing supported within the same room	•	•	•
41	Easily edit the automatic circuits to optimize your design	•	•	•
42	Fast freehand drawing for fully custom circuits in any room or groups of rooms	•	•	•
43	Copy, Flip and Rotate circuits and groups of circuits	•	•	•
44	Flow direction setting with special color shaded view, with auto direction option	•	•	•
45	Tubing above/below subfloor options	•	•	•
46	<b>Offset Circuits</b> function for quick drawing along complex walls or edges	•	•	•
47	Draw multiple leaders from room to manifold in a single operation	•	•	•
48	Auto-connect of nearby circuits to a manifold	•	•	•
49	Manifolds capable of connecting to circuits on multiple floorplans or levels.	•	•	•

## Load Calculations

		Standard	Professional	MJ8
50	ASHRAE 2017 residential heat loss calculations performed as you draw		•	•
51	CSA F280-12 (R2017) residential heating and cooling load calculations		•	•
52	ACCA-Approved Manual J calculations for residential heating and cooling loads (8 <sup>th</sup> Edition Version 2.5)			•

		Standard	Professional	MJ8
53	Manual J advanced calculations support			•
54	Manual J block and room load calculations			•
55	Manual J AED (Adequate Exposure Diversity) calculations and graphs			•
56	Manual J Peak Load Procedure option			•
57	Manual J October cooling load evaluation automatically performed			•
58	Manual J estimated room CFM			•
59	Manual J calculations for Infiltration for <b>Maximum ACH50 values</b>			•
60	Manual J Review step to assist with project analysis and review			•
61	Manual J approved report formats			•
62	Create custom climate locations and save for reuse on other projects		•	•
63	Ability to specify rooms heated by radiant, baseboard, forced air or other heat	•	•	•
64	Automatic calculation of required supplemental heat based on radiant circuit design	•	•	•
65	R-value lists for all major structural components		•	•
66	<b>Custom Construction Library</b> to save your custom construction items for re-use		•	•
67	Support for cold partitions with editing of cold side temperatures		•	•
68	Manual input of heat loads and back losses	•	•	
69	Project Wizard guides you through the setup of construction defaults for your project		•	•
70	<b>Project Templates</b> to save your common project settings for re-use	•	•	•
71	Air Flow (CFM) calculations in CSA mode		•	•
72	Graphical views of calculated unit heat load data via color shading of rooms		•	•
73	Spreadsheet style view of data provides easy review and analysis	•	•	•
74	Heat loss summary and detailed report options		•	•

## Hydronic Calculations

		Standard	Professional	MJ8
75	Hydronics heating calculations based on calculated heat load data		•	•
76	Hydronics calculations based on optional manual heat load data input	•	•	•
77	Calculates required surface, panel, and water supply temperatures	•	•	•
78	Easy adjustment of water temperature using slider tool	•	•	•
79	Fluid flow rate and head loss calculations for tubing, manifolds and Supply/Return Piping	•	•	•
80	Support for water only or glycol mixtures	•	•	•
81	Independently set the Fluid $\Delta T$ and Fluid Type for individual manifolds	•	•	•
82	Variable or fixed temperature drop settings	•	•	•
83	Automatic detection of areas left unheated	•	•	•
84	Calculations for circuits spanning multiple rooms and with different unit heat loads	•	•	•
85	Radiant panel types can be assigned for the entire floorplan or room-by-room	•	•	•
86	3D models of radiant panel structures	•	•	•
87	Zone assignments can be edited in drawing view or data view	•	•	•
88	Graphical views of calculated data via color shading of rooms	•	•	•
89	Spreadsheet style view of data provides easy review and analysis	•	•	•

## Snowmelt Design

		Standard	Professional	MJ8
90	Calculation of snowmelt loads using ASHRAE methods (select US cities only)		•	•
91	Manual input option for snowmelt loads	•	•	•
92	Calculates supply water temperatures	•	•	•
93	Automatic circuit generation	•	•	•
94	Freehand drawing tools for manual circuits same as in radiant heating	•	•	•
95	Support for concrete, asphalt and paver installations	•	•	•
96	Flow rate and head loss calculations	•	•	•
97	Specify Unheated Snow Melt Areas (central regions surrounded by heated areas)	•	•	•
98	Drawing of distribution piping with curved or straight lines (select Editions only)	•	•	•

## OEM (Manufacturer) Editions

		Standard	Professional	MJ8
99	Easily install OEM Editions from participating Manufacturers at no additional cost**	•	•	•
100	OEM database of components with pictures and specifications	•	•	•
101	Product pricing (if supplied by OEM)	•	•	•
102	Integration of OEM components and design parameters into the design process, including tubing types, manifolds, controls, panel outputs, water temperatures, etc.	•	•	•
103	Calculation of OEM-specific materials lists	•	•	•
104	Full quotation features and reports	•	•	•
105	Free Spreadsheet-Mode for quick designs without a drawing (select OEM Editions only)	•	•	•

\*\* No additional cost for non-locked generic licenses only.