

LoopCAD® is the premiere software for the creation of professional quality designs and circuit layout drawings for radiant heating and snowmelt systems. LoopCAD 2019 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> - 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	Support for both IP (US) units and SI (Metric) units	■	■	■
14	Drawings and design reports can be printed or exported to PDF files	■	■	■
15	<b>NEW</b> Report Packages lets you assemble multiple reports into a single PDF	■	■	■
16	<b>NEW</b> Notes Library lets you save and reuse frequently used notes	■	■	■
17	Equipment Report to assist in documenting selected HVAC equipment	■	■	■
18	Export to Excel features for all key design data and materials lists	■	■	■
19	Video Tutorial gets you up and running fast	■	■	■
20	Online Help file and PDF User's Guide	■	■	■
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	■	■	■

## Circuit (Loop) Drawing

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

## Load Calculations

		Standard	Professional	MJ8
46	ASHRAE 2017 residential heat loss calculations performed as you draw		■	■
47	CSA F280-12 (R2017) residential heating and cooling load calculations		■	■
48	ACCA-Approved Manual J calculations for residential heating and cooling loads (8 <sup>th</sup> Edition Version 2.5)			■
49	Manual J advanced calculations support			■
50	Manual J block and room load calculations			■
51	Manual J AED (Adequate Exposure Diversity) calculations and graphs			■
52	Manual J Peak Load Procedure option			■
53	Manual J October cooling load evaluation automatically performed			■
54	Manual J estimated room CFM			■

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

## Hydronic Calculations

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

## Snowmelt Design

		Standard	Professional	MJ8
87	Calculation of snowmelt loads using ASHRAE methods (select US cities only)		■	■
88	Manual input option for snowmelt loads	■	■	■
89	Calculates supply water temperatures	■	■	■
90	Automatic circuit generation	■	■	■
91	Freehand drawing tools for manual circuits same as in radiant heating	■	■	■

		Standard	Professional	MJ8
92	Support for concrete, asphalt and paver installations	■	■	■
93	Flow rate and head loss calculations	■	■	■
94	Specify Unheated Snow Melt Areas (central regions surrounded by heated areas)	■	■	■
95	Drawing of distribution piping with curved or straight lines (select Editions only)	■	■	■

## OEM (Manufacturer) Editions

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

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