

**WEATHER DATA FOR ENGINEERING**

**What is BinMaker<sup>®</sup> PRO?**

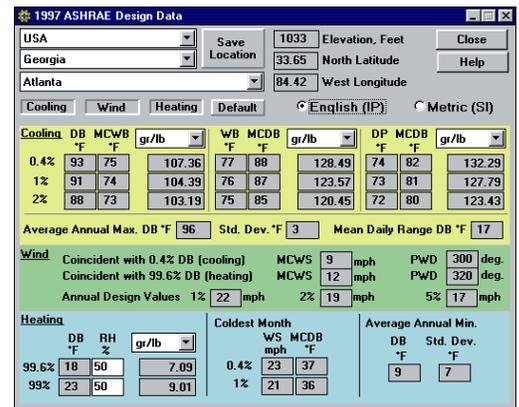
CD-ROM-based *BinMaker<sup>®</sup> PRO* featured two modules: a viewer for ASHRAE design weather data, and program to create custom summaries of hourly annual data sets.

**1459 Domestic and International Locations**

Go Global with design data for the domestic and the international market.

**Interactive ASHRAE Design Weather Data Viewer**

Convenient electronic format gives you more information than any printed edition. Convert and display values between different units with the click of a mouse.



**Features**

- Access new ASHRAE's design weather data – 1459 domestic and international locations
- Calculate ventilation cooling and heating load and the ventilation load index (VLI) for any indoor air set point
- Customize weather summaries according to monthly, weekly or daily schedules
- Avoid distortion of coincident averages by creating a joint-frequency table of temperature and moisture
- Easily extract portions of weather records for solar, winds or rainfall analysis
- Get hourly weather data for 239 locations from TMY2 datasets and 1020 locations from TMY3 datasets
- User friendly—compatible with Windows<sup>®</sup> 2000 / XP / Vista / 7

**Potential Users**

- HVAC consultants
- HVAC system designers and operators
- Gas and electric utility marketing professionals

Convention Bin for ATLANTA GA WBAH # 13874 (2080 Hrs)

Binning on Humidity Ratio

Midpt (RH to DB)	June	July	August	September	October	DB
Hrs	DB(F)	Hrs	DB(F)	Hrs	DB(F)	Hrs
142.5 (140 to 145)	1	84.9				
137.5 (135 to 140)	7	82.9	1	77.0		
132.5 (130 to 135)	4	84.3				
127.5 (125 to 130)	3	82.3	14	84.8	3	85.0
122.5 (120 to 125)	10	85.3	7	84.4	1	82.0
117.5 (115 to 120)	33	81.5	32	81.5	40	83.0
112.5 (110 to 115)	11	82.0	96	80.6	81	82.3
107.5 (105 to 110)	19	79.5	12	80.4	33	81.5
102.5 (100 to 105)	30	80.2	11	82.4	29	78.4
97.5 (95 to 100)	31	80.6	7	82.6	12	77.3
92.5 (90 to 95)	7	79.0	7	86.3	12	79.0
87.5 (85 to 90)	14	85.6	14	85.6	18	78.8
82.5 (80 to 85)	9	81.2	14	81.9	14	78.8
77.5 (75 to 80)	19	80.1	14	83.3	16	76.2
72.5 (70 to 75)	33	77.4	14	81.2	4	83.5
67.5 (65 to 70)	21	77.5	9	77.9	3	83.6
62.5 (60 to 65)	10	76.3	4	79.5		
57.5 (55 to 60)	9	80.2	1	79.0		
52.5 (50 to 55)	12	77.3				
47.5 (45 to 50)	4	77.8				
42.5 (40 to 45)						
37.5 (35 to 40)						
32.5 (30 to 35)						
27.5 (25 to 30)						
22.5 (20 to 25)						
17.5 (15 to 20)						

**BinS...With Your Choice of Bin Variables**

Perfect for spreadsheet calculation - summarize the weather into BINs by dry bulb temperature, by humidity ratio, by wet bulb temperature or even by wind speed. Get mean coincident values for any of these variables automatically. For example, humidity BINs, with the average dry bulb for the binned hours.

**BinS by Design**

Dramatically improve the accuracy of spreadsheet loads calculations. Have a load that only operates part of the day, week, or year? Automatically develop bins for those hours only with up to 23 data elements. Save result for use in other programs. *BinMaker<sup>®</sup>* makes it easy way to work with weather data.

Preconditioning Data for ATLANTA GA WBAH # 13874 (2080 Hrs)

Binning on Humidity Ratio

Cumulative Cooling Load in ton-hr/deg for the selected hours

Bin	June	July	Aug	Sept	Oct	Total
Midpt (RH to DB)	Hrs	DB(F)	Hrs	DB(F)	Hrs	DB(F)
142.5 (140 to 145)						84.9
137.5 (135 to 140)						82.9
132.5 (130 to 135)						84.3
127.5 (125 to 130)	3	82.3	14	84.8	3	85.0
122.5 (120 to 125)	10	85.3	7	84.4	1	82.0
117.5 (115 to 120)	33	81.5	32	81.5	40	83.0
112.5 (110 to 115)	11	82.0	96	80.6	81	82.3
107.5 (105 to 110)	19	79.5	12	80.4	33	81.5
102.5 (100 to 105)	30	80.2	11	82.4	29	78.4
97.5 (95 to 100)	31	80.6	7	82.6	12	77.3
92.5 (90 to 95)	7	79.0	7	86.3	12	79.0
87.5 (85 to 90)	14	85.6	14	85.6	18	78.8
82.5 (80 to 85)	9	81.2	14	81.9	14	78.8
77.5 (75 to 80)	19	80.1	14	83.3	16	76.2
72.5 (70 to 75)	33	77.4	14	81.2	4	83.5
67.5 (65 to 70)	21	77.5	9	77.9	3	83.6
62.5 (60 to 65)	10	76.3	4	79.5		
57.5 (55 to 60)	9	80.2	1	79.0		
52.5 (50 to 55)	12	77.3				
47.5 (45 to 50)	4	77.8				
42.5 (40 to 45)						
37.5 (35 to 40)						
32.5 (30 to 35)						
27.5 (25 to 30)						
22.5 (20 to 25)						
17.5 (15 to 20)						

**Ventilation Pre-Conditioning & Ventilation Load**

Compare weather conditions to your inside temperature and humidity—and calculate the energy needed to heat, cool and dehumidify outside air. Show separate values for the temperature and moisture loads in each BIN during the year or month.

**Joint-Frequency Tables**

*BinMaker<sup>®</sup>* lets you create a joint-frequency table of hours at each combination of temperature and humidity. See how many hours occur in each part of the psychrometric chart, and calculate loads accordingly.