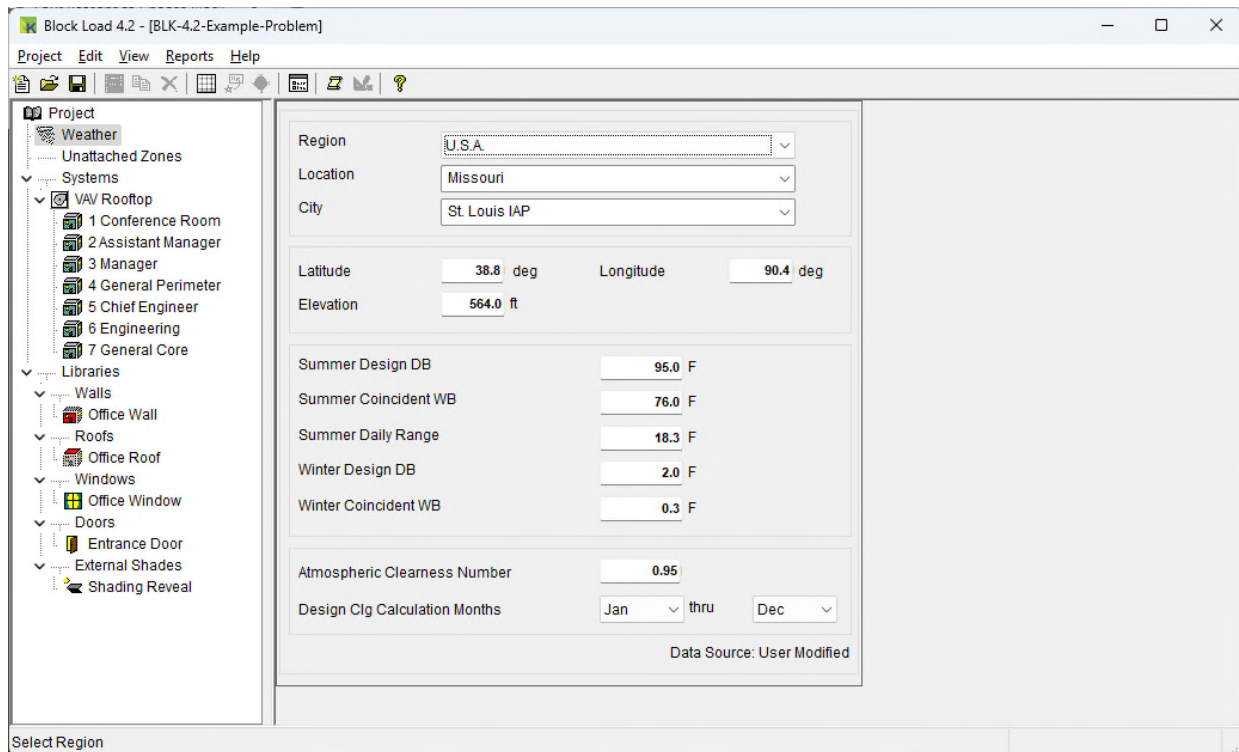


Block Load v4.2 Input Screen Snapshots

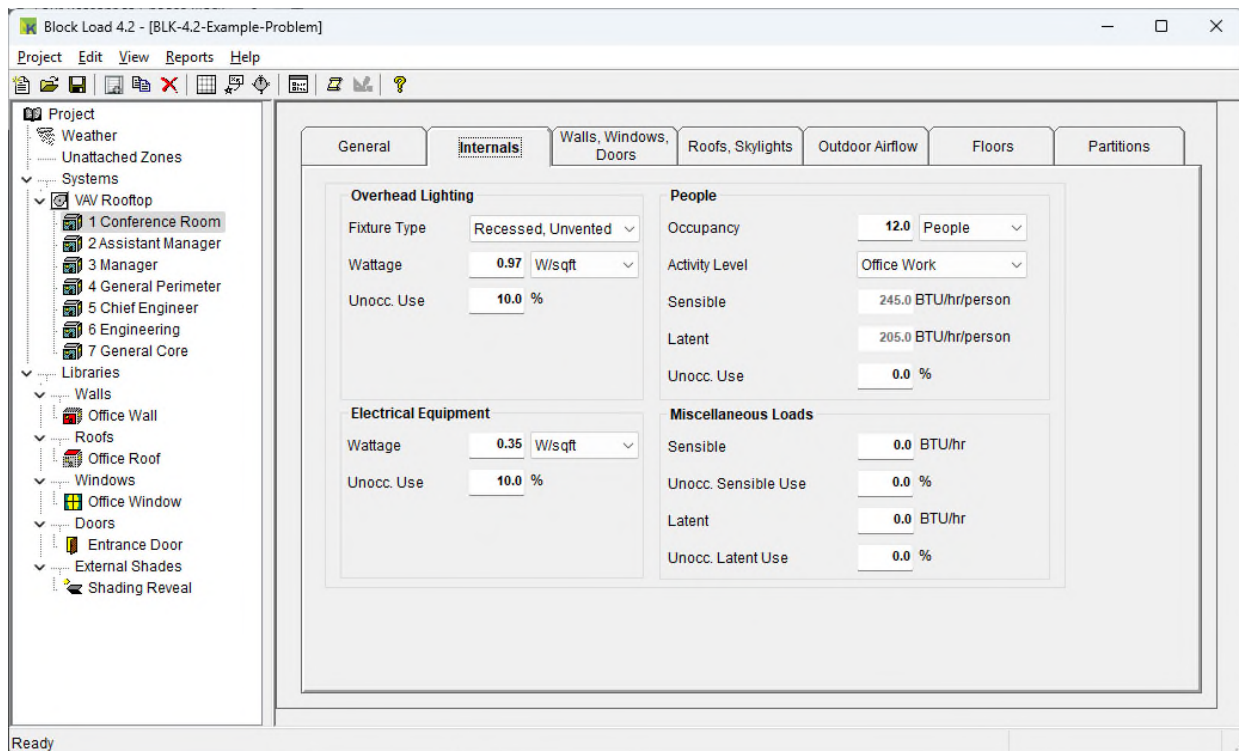
1. Weather Input Screen



The screenshot shows the Weather Input screen in Block Load 4.2. The left sidebar contains a project tree with categories: Project, Weather, Unattached Zones, Systems, and Libraries. Under Systems, 'VAV Rooftop' is selected, showing a list of rooms: 1 Conference Room, 2 Assistant Manager, 3 Manager, 4 General Perimeter, 5 Chief Engineer, 6 Engineering, and 7 General Core. Under Libraries, 'Walls' is selected, showing 'Office Wall'. The main area contains input fields for weather data. The 'Region' is set to 'U.S.A.', 'Location' to 'Missouri', and 'City' to 'St. Louis IAP'. 'Latitude' is 38.8 deg and 'Longitude' is 90.4 deg. 'Elevation' is 564.0 ft. The 'Summer Design DB' is 95.0 F, 'Summer Coincident WB' is 76.0 F, 'Summer Daily Range' is 18.3 F, 'Winter Design DB' is 2.0 F, and 'Winter Coincident WB' is 0.3 F. 'Atmospheric Clearness Number' is 0.95. 'Design Clg Calculation Months' are set to 'Jan' thru 'Dec'. The 'Data Source' is 'User Modified'.

Field	Value
Region	U.S.A.
Location	Missouri
City	St. Louis IAP
Latitude	38.8 deg
Longitude	90.4 deg
Elevation	564.0 ft
Summer Design DB	95.0 F
Summer Coincident WB	76.0 F
Summer Daily Range	18.3 F
Winter Design DB	2.0 F
Winter Coincident WB	0.3 F
Atmospheric Clearness Number	0.95
Design Clg Calculation Months	Jan thru Dec
Data Source	User Modified

2. Zone Input Screen



The screenshot shows the Zone Input screen in Block Load 4.2. The left sidebar is the same as in the Weather Input screen. The main area has tabs for 'General', 'Internals', 'Walls, Windows, Doors', 'Roofs, Skylights', 'Outdoor Airflow', 'Floors', and 'Partitions'. The 'Internals' tab is selected. It contains sections for 'Overhead Lighting', 'Electrical Equipment', 'People', and 'Miscellaneous Loads'. 'Overhead Lighting' has 'Fixture Type' set to 'Recessed, Unvented', 'Wattage' at 0.97 W/sqft, and 'Unocc. Use' at 10.0 %. 'Electrical Equipment' has 'Wattage' at 0.35 W/sqft and 'Unocc. Use' at 10.0 %. 'People' has 'Occupancy' at 12.0 People, 'Activity Level' set to 'Office Work', 'Sensible' at 245.0 BTU/hr/person, 'Latent' at 205.0 BTU/hr/person, and 'Unocc. Use' at 0.0 %. 'Miscellaneous Loads' has 'Sensible' at 0.0 BTU/hr, 'Unocc. Sensible Use' at 0.0 %, 'Latent' at 0.0 BTU/hr, and 'Unocc. Latent Use' at 0.0 %.

Section	Field	Value
Overhead Lighting	Fixture Type	Recessed, Unvented
	Wattage	0.97 W/sqft
	Unocc. Use	10.0 %
Electrical Equipment	Wattage	0.35 W/sqft
	Unocc. Use	10.0 %
People	Occupancy	12.0 People
	Activity Level	Office Work
	Sensible	245.0 BTU/hr/person
	Latent	205.0 BTU/hr/person
	Unocc. Use	0.0 %
Miscellaneous Loads	Sensible	0.0 BTU/hr
	Unocc. Sensible Use	0.0 %
	Latent	0.0 BTU/hr
	Unocc. Latent Use	0.0 %

3. Zone Spreadsheet-Style Inputs

Spreadsheet View

Filter: Show Zones for System... All

Zone Name	1 Conference Room	2 Assistant Manager	3 Manager	4 General Perimeter	5 Chief Engineer	6 Engineering	7 General Core
Fixture Type	Recessed, Unvented	Recessed, Unvented	Recessed, Unvented	Recessed, Unvented	Recessed, Unvented	Recessed, Unvented	Recessed, Unvented
Overhead Wattage	0.97 (W/sqft)	0.74 (W/sqft)	0.74 (W/sqft)	0.66 (W/sqft)	0.74 (W/sqft)	0.66 (W/sqft)	0.61 (W/sqft)
Overhead Unocc. Use (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
Electrical Wattage	0.35 (W/sqft)	0.35 (W/sqft)	0.35 (W/sqft)	0.35 (W/sqft)	0.35 (W/sqft)	0.35 (W/sqft)	0.35 (W/sqft)
Electrical Unocc. Use (%)	10.0	10.0	10.0	10.0	10.0	10.0	10.0
People Occupancy	12.0 (People)	2.0 (People)	2.0 (People)	10.0 (People)	2.0 (People)	6.0 (People)	30.0 (People)
People Activity Level	Office Work	Office Work	Office Work	Office Work	Office Work	Office Work	Office Work
People Sensible (BTU/hr)	245.0	245.0	245.0	245.0	245.0	245.0	245.0
People Latent (BTU/hr)	205.0	205.0	205.0	205.0	205.0	205.0	205.0
People Unocc. Use (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous Sensible (BTU/hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unocc. Sensible Use (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Miscellaneous Latent (BTU/hr)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unocc. Latent Use (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0

OK Cancel Help

4. System Input Screen

Block Load 4.2 - [BLK-4.2-Example-Problem]

Project Edit View Reports Help

Project

- Weather
- Unattached Zones
- Systems
 - VAV Rooftop
 - 1 Conference Room
 - 2 Assistant Manager
 - 3 Manager
 - 4 General Perimeter
 - 5 Chief Engineer
 - 6 Engineering
 - 7 General Core
- Libraries
 - Walls
 - Office Wall
 - Roofs
 - Office Roof
 - Windows
 - Office Window
 - Doors
 - Entrance Door
 - External Shades
 - Shading Reveal

General | Plenum, Safety Factor

Air System Name: VAV Rooftop

Air System Type: VAV

Ventilation Sizing Method: ASHRAE Std 62-2001

Cooling Used? ☒

Cooling Supply Air: 55.0 F

Cooling Coil Bypass Factor: 0.080

System Startup: 7

Duration of Operation: 12 hr

Zone Reheat Used? ☒

Heating Supply Air: 110.0 F

Minimum Airflow to Zones: 20.00 CFM/person

Supply Fan

Configuration: ☒ Draw-thru ☐ Blow-thru

Total Static: 2.00 in wg

Thermostat

Cooling T-stat Setpoint (occ): 75.0 F

Cooling T-stat Setpoint (unocc): 80.0 F

Heating T-stat Setpoint (occ): 70.0 F

Heating T-stat Setpoint (unocc): 60.0 F

Ready

5. Wall Assembly Input Screen

Block Load 4.2 - [BLK-4.2-Example-Problem]

Project Edit View Reports Help

Project

- Weather
- Unattached Zones
- Systems
 - VAV Rooftop
 - 1 Conference Room
 - 2 Assistant Manager
 - 3 Manager
 - 4 General Perimeter
 - 5 Chief Engineer
 - 6 Engineering
 - 7 General Core
- Libraries
 - Walls
 - Office Wall
 - Roofs
 - Office Roof
 - Windows
 - Office Window
 - Doors
 - Entrance Door
 - External Shades
 - Shading Reveal

Wall Assembly Name: Office Wall

Outside Surface Color: Light Absorptivity: 0.450

Layers: Inside to Outside	Thickness in	Density lb/cuft	Specific Ht. BTU/lb/F	R-Value hr-sqft-F/BTU	Weight lb/sqft
Inside surface resistance	0.000	0.0	0.00	0.68500	0.0
5/8-in gypsum board	0.625	50.0	0.26	0.56004	2.6
Steel frame cavity, R-13 batt	3.500	3.4	0.20	6.00000	1.0
R-9.5 Insulation	2.000	2.5	0.35	9.50000	0.4
Air space	0.000	0.0	0.00	0.91000	0.0
Face brick	4.000	125.0	0.22	0.43300	41.7
Outside surface resistance	0.000	0.0	0.00	0.33300	0.0
Totals	10.125			18.42104	45.7
Overall U-Value				0.054 BTU/(hr sqft F)	

Ready

6. Roof Assembly Input Screen

Block Load 4.2 - [BLK-4.2-Example-Problem]

Project Edit View Reports Help

Project

- Weather
- Unattached Zones
- Systems
 - VAV Rooftop
 - 1 Conference Room
 - 2 Assistant Manager
 - 3 Manager
 - 4 General Perimeter
 - 5 Chief Engineer
 - 6 Engineering
 - 7 General Core
- Libraries
 - Walls
 - Office Wall
 - Roofs
 - Office Roof
 - Windows
 - Office Window
 - Doors
 - Entrance Door
 - External Shades
 - Shading Reveal

Roof Assembly Name: Office Roof

Outside Surface Color: Light Absorptivity: 0.450

Layers: Inside to Outside	Thickness in	Density lb/cuft	Specific Ht. BTU/lb/F	R-Value hr-sqft-F/BTU	Weight lb/sqft
Inside surface resistance	0.000	0.0	0.00	0.61000	0.0
Acoustical tile	0.750	30.0	0.20	0.68500	1.9
Air space	36.000	0.0	0.00	0.91000	0.0
22 gage steel deck	0.034	489.0	0.12	0.00011	1.4
R-30 board insulation	6.000	2.5	0.35	30.00000	1.3
Built-up roofing	0.376	70.0	0.35	0.33200	2.2
Outside surface resistance	0.000	0.0	0.00	0.17000	0.0
Totals	43.159			32.70711	6.8
Overall U-Value				0.031 BTU/(hr sqft F)	

Ready

7. Window Assembly Input Screen

The screenshot shows the 'Window Assembly Input Screen' for an 'Office Window'. The left sidebar contains a project tree with categories: Project, Weather, Unattached Zones, Systems (expanded), Libraries, Walls, Roofs, Windows (expanded), Doors, External Shades, and Shading Reveal. Under 'Systems', 'VAV Rooftop' is selected, showing a list of rooms: 1 Conference Room, 2 Assistant Manager, 3 Manager, 4 General Perimeter, 5 Chief Engineer, 6 Engineering, and 7 General Core. Under 'Windows', 'Office Window' is selected. The main panel, titled 'Window Details', contains the following input fields:

Window Details	
Name	Office Window
Height	6.00 ft
Width	2.00 ft
Overall U-Value	0.360 BTU/(hr sqft F)
Overall Shade Coefficient	0.413

The status bar at the bottom left indicates 'Ready'.

8. Door Assembly Input Screen

The screenshot shows the 'Door Assembly Input Screen' for an 'Entrance Door'. The left sidebar is identical to the previous screen, but 'Entrance Door' is selected under the 'Doors' category. The main panel, titled 'Door Details', contains the following input fields:

Door Details	
Name	Entrance Door
Door Area	24.5 sqft
Height	7.0 ft
Width	3.5 ft
Door U-Value	0.370 BTU/(hr sqft F)
Glass Details	
Glass Area	24.5 sqft
Glass U-Value	0.630 BTU/(hr sqft F)
Overall Shade Coefficient	0.379
Glass Shaded All Day	☐

The status bar at the bottom left indicates 'Ready'.

9. External Shade Geometry Input Screen

Block Load 4.2 - [BLK-4.2-Example-Problem]

Project Edit View Reports Help

Project

- Weather
- Unattached Zones
- Systems
 - VAV Rooftop
 - 1 Conference Room
 - 2 Assistant Manager
 - 3 Manager
 - 4 General Perimeter
 - 5 Chief Engineer
 - 6 Engineering
 - 7 General Core
- Libraries
 - Walls
 - Office Wall
 - Roofs
 - Office Roof
 - Windows
 - Office Window
 - Doors
 - Entrance Door
 - External Shades
 - Shading Reveal and Overhang

Ready

Shading Reveal and Overhang

Name: Shading Reveal and Overhang

Reveal Depth: 6.0 in

Overhang

Projection from surface: 36.0 in

Height above window: 4.0 in

Ext. past RH side of window: 12.0 in

Ext. past LH side of window: 12.0 in

Left Fin

Projection from surface: 0.0 in

Height above window: 0.0 in

Dist. from edge of window: 0.0 in

Right Fin

Projection from surface: 0.0 in

Height above window: 0.0 in

Dist. from edge of window: 0.0 in

10. Design Load Reports Selection Screen

Design Load Reports

Report Options and Selections

Reports	Time Specification		
System Sizing Summary	☒	..	..
System Load Summary	☒	☒ Peak	..
Zone Load Summary	☒	☒ Peak	..
System Psychrometrics Graph	☒	☐ Peak	Jul 15:00
☒ Advanced Reports			
Ventilation Sizing Summary	☒	..	..
Hourly Air System Loads	☒	Jul	To Jul
Hourly Zone Loads	☒	Jun	To Aug
System Psychrometrics Table	☒	☐ Peak	Jul 15:00

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