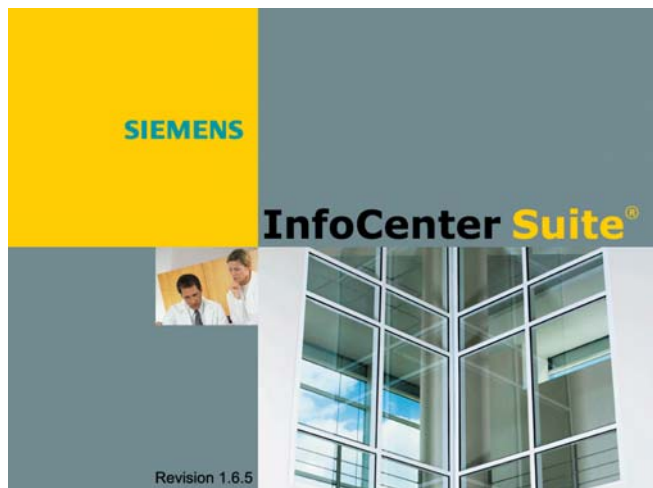


APOGEE GO for Animal Facility Reports



Description

APOGEE GO® is a family of solutions that allows you access to your APOGEE® Automation System via the intranet or Internet using standard Web browsers. The greatest advantage of APOGEE GO products is that authorized users can access their systems from anywhere at any time. The use of browser technologies also reduces capital and operational costs by not requiring that special software be installed on a client and leveraging existing computer investments. APOGEE GO products use Microsoft's Internet Information Server (IIS) software, Active Server Page (ASP) and XML to effectively deliver solutions through standard browsers.

APOGEE GO for Animal Facility Reports (AFR) is an InfoCenter Suite® based reporting application designed to support data analysis and reporting needs of Animal Research Facilities. Powered by InfoCenter Suite's automated data management functions, APOGEE GO for Animal Facility Reports can provide significant insight into the historical performance of a room, area or cage rack.

Features of APOGEE GO for Animal Facility Reports include:

- Browser access to predefined Animal Facility Reports.
- Browser access to a configuration utility for quick area/room/rack/unit setup and report configuration.
- On-demand data processing and report generation including:
 - Daily Room Summary Reports
 - Daily Lighting Status Reports
 - Environmental Parameters Reports
 - HVAC Air Balancing Reports

APOGEE GO for Animal Facility Reports:

- Uses existing InfoCenter Suite account groups to control access to set up and report generation functions.
- Uses InfoCenter Suite's existing licenses. Each browser-based access uses one InfoCenter Suite license.
- Supported on either InfoCenter Suite Base or InfoCenter Suite Advanced.

Security

Access to APOGEE GO for AFR is controlled via IIS authentication and InfoCenter Suite's Windows integrated security. Using Windows accounts placed in InfoCenter Suite security groups, access to APOGEE GO for AFR can be limited to predefined InfoCenter users. Access to the report configuration and report generation screens can also be controlled so that only specific users can configure rooms and reports, while other users can simply run the range of reports on those predefined rooms/units/racks.

On-Demand Reporting

Report generation is as easy as navigating to your APOGEE GO for AFR URL, selecting a report type,

room/area name and report date range. This information is submitted to InfoCenter Suite's server interface where the InfoCenter Suites librarian locates the raw data regardless of whether it is available online or archived offline. A copy of this secure data is sent back to APOGEE GO for AFR where it is processed into meaningful information and displayed in your browser as the pre-selected report. The entire report interface is one, user-friendly screen. (See Figure 1).

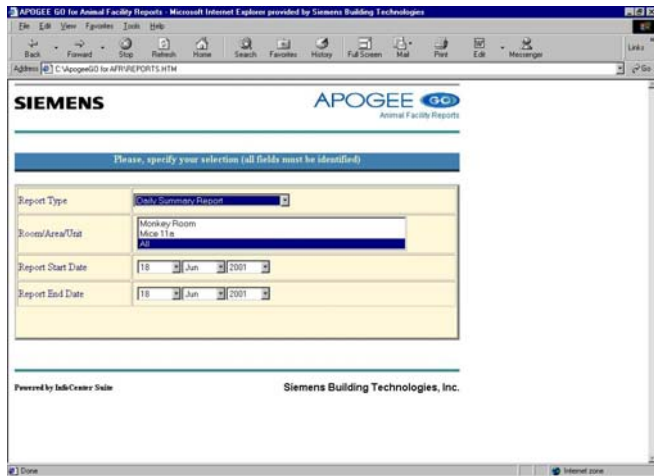


Figure 1. Report Generation Interface.

Daily Room Reports

Daily Room Reports are designed to display critical environment parameters to ensure experimental control as well as animal well-being. For each predefined room/unit/rack, a Daily Room report calculates the min, max and weighted average of temperature, humidity and air changes. This report displays a single, historical day for any combination of rooms/units. (See Figure 2.)

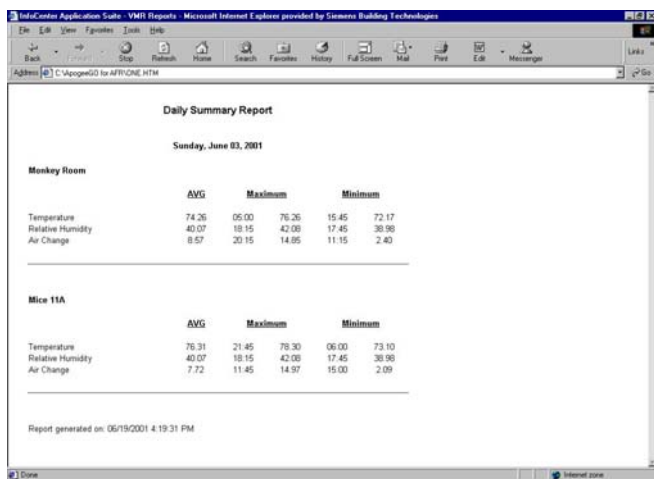


Figure 2. Daily Summary Report.

The Multi-Day Summary report contains the same parameters as the daily summary report; however, you can select a range of dates to report on. The report

contains daily summaries for each day within the user-defined range and can contain any combination of rooms/units. (See Figure 3.)

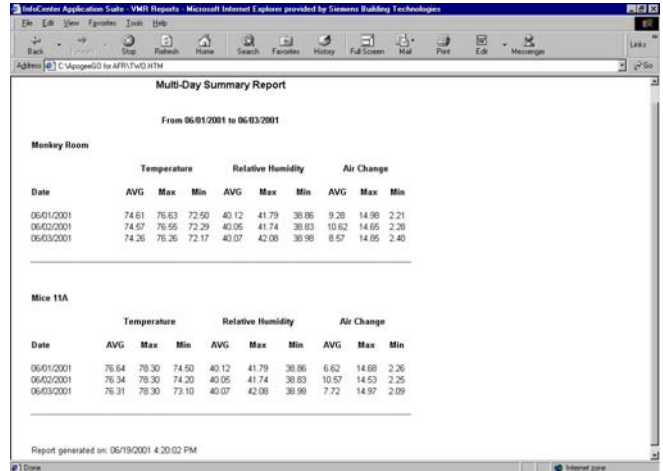


Figure 3. Multi-Day Summary Report.

Lighting Reports

The Lighting Report allows you to quickly assess the historical status of lights in each room/unit. With a resolution of 5 minutes, you can quickly detect abnormalities in lighting patterns that may impact the quality of research or the well-being of animals. Lighting reports can be run on any combination of rooms with lighting points enabled. (See Figure 4.)

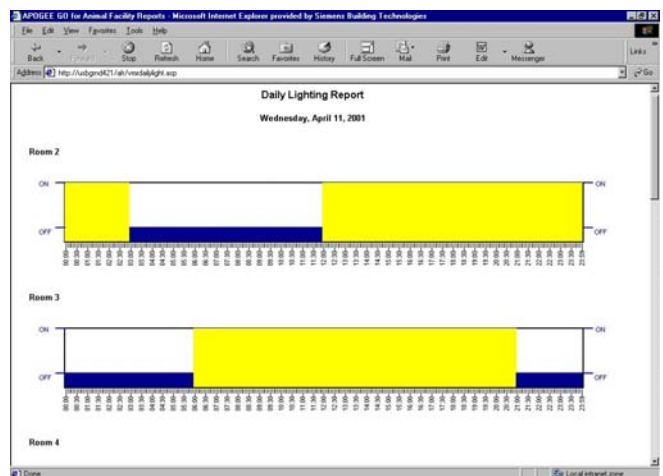


Figure 4. Daily Lighting Summary.

Environmental Summary Reports

The Environmental Parameters Report is designed to provide all room environmental information on one, straightforward report. This report includes user-defined setpoints and min/max values for Temperature, Humidity and ACH during the user-defined report period. Lighting status is reported at the beginning and end of the report period along with the number of times the lights have cycled on/off during

the period. Using air supply and exhaust flows, this report also includes the pressurization status (Negative, Positive, Neutral) of the unit/room relative to the corridor. All calculated values in this report are based on the report period. This means you can make a daily, weekly or even monthly summary by simply varying the report data range. This report can be used for any combination of rooms and date ranges. (See Figure 5.)

Environmental Parameters Report
Tuesday, April 18, 2001

Room/Area/Unit	Air Temperature			Humidity			Airflow			Light Cycles		Air flow ret to corridor
	Set	Low	High	Set	Low	High	Set	Low	High	On	Off	
Mice 11a	72.00	74.84	79.84	62.00	47.02	60.38	5.00	4.00	4.63	ON*	ON*	Negative
Mice 11b	73.00	75.72	80.63	63.00	41.90	54.97	5.00	4.00	4.63	06:00	21:00	1
Beagle A	74.00	74.84	79.84	64.00	47.02	60.38	5.00	4.00	4.63	ON*	ON*	Negative
Beagle C	76.00	76.72	83.63	66.00	41.90	54.97	5.00	4.00	4.63	06:00	21:00	1
Beagle E	76.00	74.84	79.84	66.00	47.02	60.38	5.00	4.00	4.63	ON*	ON*	Negative
Monkey 323	77.00	75.72	83.63	67.00	41.90	54.97	5.00	4.00	4.63	06:00	21:00	1
Large Animal A	78.00	74.84	79.84	68.00	47.02	60.38	5.00	4.00	4.63	ON*	ON*	Negative
Naked Mole Rats	79.00	75.72	83.63	69.00	41.90	54.97	5.00	4.00	4.63	06:00	21:00	1

Notes:
 • ON* in the On column indicates that the light is already ON at the beginning of the selected period.
 • ON* in the Off column indicates that the light is still ON at the end of the selected period.
 • * indicates that the value can not be determined.

Report generated on: 7/24/01 11:19:00 AM

Figure 5. Environmental Parameters Report.

HVAC Air Balancing Reports

The HVAC Air Balancing Report is designed for users who want to see “raw” data on the performance of their systems. This report includes all recorded values for temperature, humidity, ACH, supply flow and exhaust flow. The report calculates pressurization status and displays user defined room parameters such as room volume, outside air control type, air treatment type and humidity control type. The HVAC Air Balancing Report is designed to be run for any range of dates and any room/unit combination. (See Figure 6.)

HVAC Air Balancing Report for Monkey Room AB1
From 4/13/01 to 7/13/01

Date & Time	Temperature (Degree F)	Humidity (%)	Air Change (CPH)	Supply Air (CFM)	Exhaust Air (CFM)	Actual pressure	Volume	OA Type	Air treatment	Humidity control
00:00	79.26	49.77	4.62	486.00	786.00	Negative	10200	20 % OA	Filtered	zone
00:15	79.67	50.18	4.62	493.00	786.00	Negative	10200	20 % OA	Filtered	zone
00:30	80.37	50.18	4.62	493.00	786.00	Negative	10200	20 % OA	Filtered	zone
00:45	80.78	49.93	4.62	491.00	787.00	Negative	10200	20 % OA	Filtered	zone
01:00	80.76	49.66	4.62	489.00	787.00	Negative	10200	20 % OA	Filtered	zone
01:15	80.98	49.60	4.62	492.00	787.00	Negative	10200	20 % OA	Filtered	zone
01:30	80.31	49.43	4.62	490.00	787.00	Negative	10200	20 % OA	Filtered	zone
01:45	80.11	49.64	4.62	486.00	786.00	Negative	10200	20 % OA	Filtered	zone
02:00	80.07	49.49	4.62	491.00	787.00	Negative	10200	20 % OA	Filtered	zone
02:15	79.72	49.45	4.62	491.00	786.00	Negative	10200	20 % OA	Filtered	zone
02:30	79.28	49.62	4.61	487.00	786.00	Negative	10200	20 % OA	Filtered	zone
02:45	79.05	49.62	4.61	490.00	787.00	Negative	10200	20 % OA	Filtered	zone
03:00	78.95	49.25	4.62	488.00	786.00	Negative	10200	20 % OA	Filtered	zone
03:15	79.66	49.21	4.62	492.00	786.00	Negative	10200	20 % OA	Filtered	zone
03:30	79.65	49.33	4.62	487.00	787.00	Negative	10200	20 % OA	Filtered	zone
03:45	78.67	49.65	4.62	489.00	786.00	Negative	10200	20 % OA	Filtered	zone
04:00	78.74	49.47	4.62	491.00	786.00	Negative	10200	20 % OA	Filtered	zone
04:15	79.86	49.35	4.62	488.00	786.00	Negative	10200	20 % OA	Filtered	zone
04:30	79.74	49.21	4.62	488.00	787.00	Negative	10200	20 % OA	Filtered	zone
04:45	79.44	49.34	4.62	492.00	787.00	Negative	10200	20 % OA	Filtered	zone
05:00	78.37	49.31	4.61	488.00	786.00	Negative	10200	20 % OA	Filtered	zone
05:15	78.19	49.26	4.62	489.00	786.00	Negative	10200	20 % OA	Filtered	zone
05:30	79.03	49.19	4.62	489.00	786.00	Negative	10200	20 % OA	Filtered	zone
05:45	79.59	49.21	4.62	490.00	786.00	Negative	10200	20 % OA	Filtered	zone
06:00	80.03	49.23	4.61	487.00	786.00	Negative	10200	20 % OA	Filtered	zone

Figure 6. HVAC Air Balancing Report.

The HVAC Air Balancing Report – Snapshot allows you to specify one instant in time (Snapshot) and display the historical conditions at that time. (See Figure 7.) This report can be run for any combination of rooms/units.

HVAC Air Balancing Report - Snapshot
as of Saturday, April 14, 2001 11:00:00

Room/Area/Unit	Temperature (Degree F)	Humidity (%)	Air Change (CPH)	Supply Air (CFM)	Exhaust Air (CFM)	Actual pressure	Volume	OA Type	Air treatment	Humidity control
Room 2	78.99	61.40	4.43	0.00	0.00	NTRL	10200	20 % OA	Filtered	zone
Room 3	80.07	56.01	4.00	392.00	918.00	Negative	10200	100% OA	Filtered	zone
Room 4	78.99	61.40	4.43	0.00	0.00	NTRL	10200	100% OA	Filtered	zone
Room 5	80.07	56.01	4.00	392.00	918.00	Negative	10200	100% OA	Filtered	zone
Room 6	78.99	61.40	4.43	0.00	0.00	NTRL	10200	100% OA	Filtered	zone
Room 7	80.07	56.01	4.00	392.00	918.00	Negative	10200	100% OA	Filtered	zone
Room 8	78.99	61.40	4.43	0.00	0.00	NTRL	10200	100% OA	Filtered	zone
Room 9	80.07	56.01	4.00	392.00	918.00	Negative	10200	100% OA	Absorber	zone

Report generated on: 7/24/01 1:14:09 PM

Figure 7. HVAC Air Balancing Report- Snapshot.

Report Configuration

Report configuration is straightforward and browser based. Assigned users can add, modify or delete rooms/units/racks. (See Figure 8.)

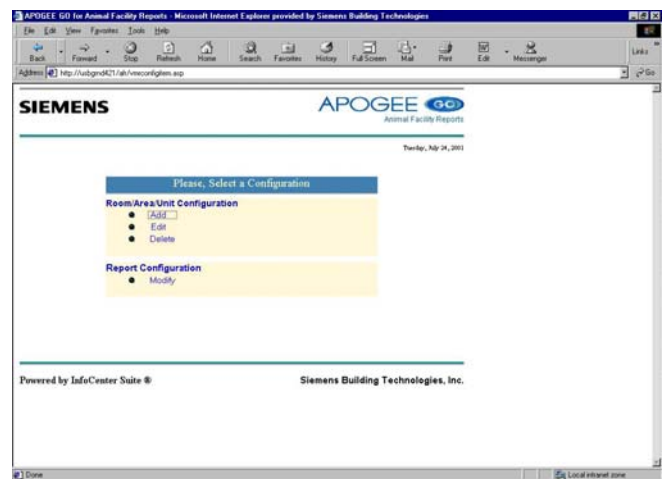


Figure 8. Configuration Main Screen.

Creating a room/unit/rack involves giving the room a name, entering manual information and then selecting the appropriate InfoCenter points for those rooms from a list of available points. (See Figure 9.)

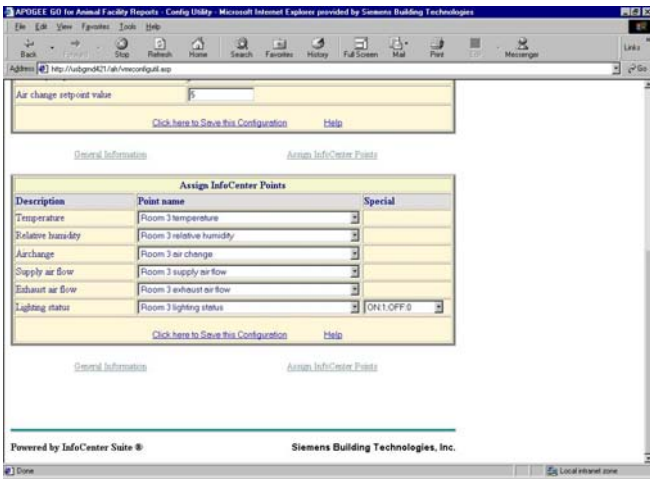


Figure 9. Adding Points to Room.

Report formats can also be modified using our configuration utility. Each key element of a report (Title, Body, Column Titles, and Background) can be varied individual by setting colors, font types, font sizes, and font alignments. (See Figure 10.)

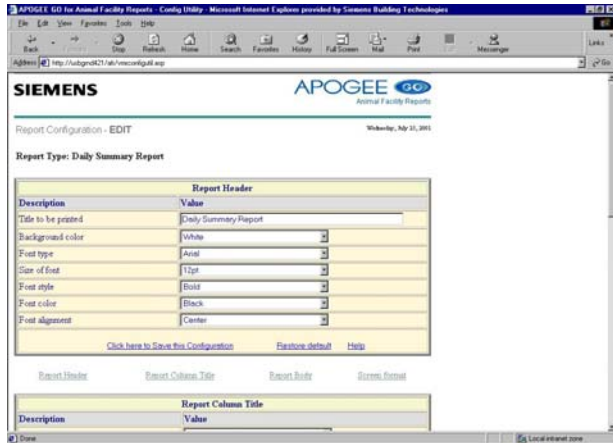


Figure 10. Changing Report Formats.

How APOGEE GO for Animal Facility Reports Works

APOGEE GO for AFR consists of three components that allow you to interact with InfoCenter Suite via a Web browser: (See Figure 11.)

- The APOGEE GO for AFR component installed on the InfoCenter Suite server.
- The APOGEE GO for AFR component for the IIS server is the Web site that defines the Animal Facility Reports interface and configuration utility. IIS is Microsoft's standard Web server that responds to Web browsers that connect to the APOGEE GO site, runs the ASP applications, and returns HTML pages to the browser requesting them.
- The third component is the Web browser. This is not an actual component of APOGEE GO, but resides on the computer used to access APOGEE GO. Compatible browsers include Microsoft IE 5.0 or later.

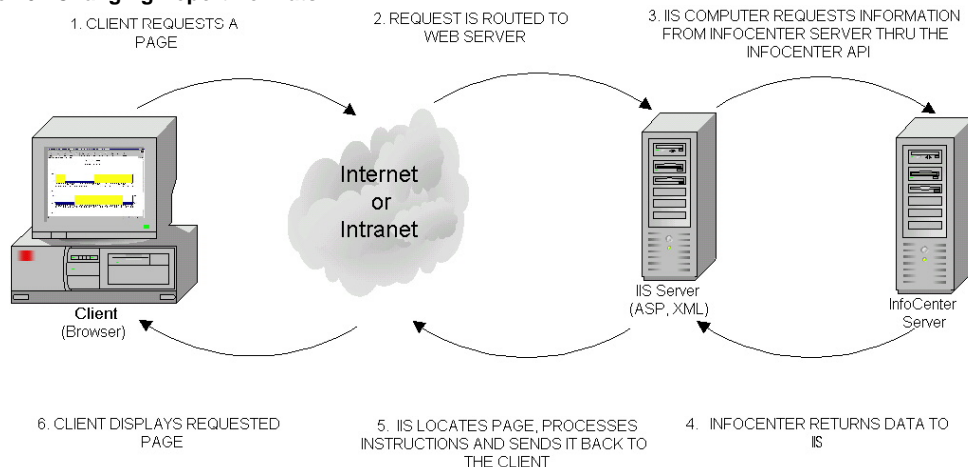


Figure 11. APOGEE GO for Animal Facility Reports request.

Specifications

Internet Information Server (IIS)	Microsoft IIS 6.0 or later.
InfoCenter Suite Server	InfoCenter Suite 1.3 or later (Base or Advanced). See InfoCenter Suite specification (149-201P25) for requirements.
IIS and InfoCenter Suite Server on same computer Note: For this configuration, the IIS should not host any other Web sites except APOGEE GO. This is not a requirement if the IIS is installed on a separate computer.	See <i>APOGEE Automation Configuration and Sizing Guidelines</i> (145-236) on InfoLink for hardware requirements.
Web Browser	Internet Explorer 6.0 or later.

Ordering Information

Description	Product Part Number
APOGEE GO for Animal Facility Reports	571-571
InfoCenter Suite Advanced Server	571-390
InfoCenter Suite Base Server	571-389

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