

## ComfortVIEW™

ComfortVIEW (part number CEAS130420) is Carrier Corporation's mid-range human interface to the Carrier Comfort Network (CCN). ComfortVIEW provides the tools for monitoring, configuring, and analyzing your facility's daily HVAC operations.

The software is designed to run on a variety of micro-computers utilizing either the Microsoft® Windows® 95 or 98 operating system.

### STANDARD PRODUCT OFFERING

The following applications and features are included with the standard ComfortVIEW product offering:

- Single Local/Single Remote CCN — Control and monitoring of one locally-connected CCN and one remote CCN, accessed by CCN Autodial Gateway, TeLINK, NAM, or modem.
- Carrier Network Manager — This application, through the use of branching tree structure displays (similar to those in the Windows Explorer) shows you the CCNs, areas, controllers, and tables that make up your ComfortVIEW database.
- Alarm Manager — This application gives you the ability to view and acknowledge incoming alarms, regardless of the application that you have running on your computer.
- Setup — You use this application to add, modify, and delete ComfortVIEW operators, and to specify global system-type parameters such as engineering units, and time of day for automatic report data retrieval.
- Help — A full complement of Windows-style help is included in the standard ComfortVIEW product.

### OPTIONS

The following applications and features are available optionally, installed at the time of installation:

- Multiple Remote CCNs — Control and monitoring of multiple remote CCNs, accessed by CCN Autodial Gateway, TeLINK, NAM, or modem.
- WorkSPACE Manager — This application allows you to create customized graphic displays of data and save them as WorkSPACES. You can also create dynamic trend plots of data.



- Report Panel — This application gives you the ability to create consumable, runtime, history, tenant billing, and system activity reports.
- BEST++ — This application gives you access to Carrier's Building Environmental System Translator (BEST++) custom controller programming language.

### FEATURES

ComfortVIEW provides an environment from which you can easily perform the following tasks:

- Display dynamic data in both text and graphic modes
- Create dynamic trend plots of data from one or multiple controllers
- View, print, and acknowledge alarms from the network
- Configure operating parameters such as time schedules, setpoints, and point configuration
- View and configure time and setpoint schedules in graphic and tabular mode
- Downline load data to and upline load data from controllers
- Override the state or value of selected input and output points
- Verify active controllers
- Customize graphics and create custom links from graphic to graphic
- Generate reports from system data and activity
- Create custom WorkSPACES for each user

- Easily backup and store all database information to disk
- Obtain on-line operator help
- Create custom controller programs (BEST++)
- Connect to remote CCNs and perform all functions as if locally connected
- True System Multi-tasking — no need for a dedicated PC — other Windows application software can run simultaneously.
- Graphical User Interface (GUI) — provides a consistent look and intuitive operation, utilizes standard Windows features and operations.
- Super VGA high resolution graphics.
- Customized Access Levels — provides you with the ability to assign one of 5 pre-defined operator access levels on an area by area basis.
- Export data into other application software — you can transport ComfortVIEW data to popular spreadsheet, word processor, and database programs.
- Dynamic Data Exchange (DDE) — support to display and force third party software points from within a WorkSPACE. Also supports DDE Poke, which allows third party software to force CCN points.
- Time and Setpoint Schedule DLL — includes this Dynamic Link Library, which allows third party access to CCN time and setpoint schedules and remote CCN connection.

## ALARM PROCESSING

Alarm processing is an automatic and full-time responsibility of ComfortVIEW. The Alarms function receives, annunciates, and stores prioritized alarms. An auto-print feature prints each alarm message as it is received.

Using ComfortVIEW Alarms function, you can examine the alarm file, acknowledge alarms, and print all or selected alarms. You can see alarms regardless of the application that you have running on your computer, and can jump to a pre-configured graphic or tabular display of data that is pertinent to the given alarm condition. The alarm routing and alarm filter features allow you to filter out alarms that you do not want to see, allowing only alarms critical to your specific responsibility to be routed to you. Alarm suppression allows you to suppress the annunciation of specific alarm conditions to avoid being interrupted by known nuisance conditions.

The Alarms function gives you a choice of alarm indication methods, allowing you to specify how you wish to be notified of the existence of alarms or alerts (visually and/

or audibly). You can customize the audible alarm indication feature so that it either produces an audible alarm tone or plays a user-specified wave file for different alarm types.

Each alarm message provides you with information such as time, date, area and point name, and CCN bus and system element number, point value, and alarm limit information. In addition, you may create and assign a custom alarm message to accompany each alarm. This message is attached to the alarm as it is received from the network and is stored along with the basic alarm information in the alarm file.

You may also customize the presentation of the alarm file by sorting it according to different aspects of the alarm information: by time/date, alarm level, or alphabetically.

You can record the action you have taken in response to an alarm by attaching a note to the alarm entry.

## CARRIER NETWORK MANAGER

The Carrier Network Manager function allows you to display, add, modify, and delete the areas, controllers, and data tables in your ComfortVIEW database.

Database contents information is presented to you in a graphically oriented directory tree "Explorer" structure. Table information is presented in a tabular format that resembles the worksheets that are employed in many widely used spreadsheet programs.

All point displays feature dynamic data. Points currently in alarm are highlighted. You can override the state or value of selected points.

Controller point maintenance data can be viewed to allow you to examine a point's or controller's performance. You can also view, modify, and configure a point, a time schedule, or a setpoint. You can easily move and copy data between controllers and tables using the drag and drop feature.

You can simultaneously display data from multiple controllers. You can also simultaneously display any type of data from controllers at more than one physical location using concurrent modem connections.

Controllers can be grouped, independent of your CCN architecture, into logical groupings convenient for your viewing such as buildings, floors, areas or regions.

## HELP

The Help function is a complete on-line reference tool that provides you with information to assist in the operation of ComfortVIEW. You can obtain context sensitive single line and full screen configuration help for all CCN system elements. Help also contains on-screen help for every ComfortVIEW command and dialog box. ComfortVIEW also features help wizards that assist you in setting up reports, alarms, user profiles, trends, and ViewSPACES. Just point and click and let the ComfortVIEW wizard step you through the process.

## WorkSPACE MANAGER

The WorkSPACE Manager application, which is available optionally with ComfortVIEW, allows you to organize and view data in a format that is convenient to you. It allows you to create your own custom displays of the data you care about most and save them as WorkSPACES. Each WorkSPACE can consist of multiple ViewSPACES and trends. A ViewSPACE is a graphic or tabular display of data. This data can be of any type — point display, maintenance, configuration, etc., and can include information from multiple controllers from one, or from multiple CCNs. Setpoints, time schedules and all configuration data is easily accessible by clicking on a data point. You can animate ViewSPACE data point displays so that changes in state are visually indicated. ComfortVIEW super VGA graphics feature gives you the capability to display nearly any type of image — photo quality scans, CAD drawings, or graphics that you create using almost any industry standard graphics software package.

The dynamic trending feature allows you to trend data from up to six points. Data is displayed in a line graph format and is stored in a format compatible with spreadsheet industry standards. Trend data can also be written to a file (archived) and then re-displayed later at any time.

## REPORTS

The Reports application, which is available optionally with ComfortVIEW, is used to generate reports from network and database data. Network report data is collected from various CCN Option Modules that reside in the network. The following reports are available:

- Consumable — daily, monthly, and yearly usage data available from the Data Collection Option

- Runtime — daily, monthly, and yearly run time data available from the Data Collection Option
- History — point trending data available through the Data Collection Option
- Tenant Billing — list of Tenant Billing Option timed overrides and resulting charges for each tenant.
- System Activity — list of system-type events such as logins and outs, alarm acknowledgments, and CCN system element additions, modifications, and deletions.

You can generate and print reports automatically at an operator-selected time each day, or manually on command. Reports can be viewed at the ComfortVIEW workstation before they are printed, exported to floppy disk or other medium for long term storage, and re-generated at a later date.

## CUSTOM REPORTS

For those situations where the standard reports do not meet your specific needs, ComfortVIEW report data can also be accessed by any Windows-compatible report/database/spreadsheet application (such as Excel) allowing you to create your own custom reports.

## SPECIFICATIONS

The following hardware is the minimum that is required to support ComfortVIEW software:

- Personal Computer:
  - 80586/100 MHz or higher Intel®-based processor with 256K cache RAM\*
  - 32 Mb of memory
  - 200 Mb of available hard disk
  - 3.5" 1.44 Mb high density disk drive
  - 15" 800 x 600 super VGA non-interlaced monitor
  - 800 x 600 video graphics adapter card\*
  - CD-ROM
- Laser, ink jet, or 24-pin dot matrix printer\*
  - 1 Printer for Alarms and Reports, or
  - 2 Printers – 1 dedicated to each function

\* These components must be verified Windows 95/98 operating system-compatible by your computer dealer.

The following software is required to support ComfortVIEW software:

- Windows 95 or 98 operating system