WORKING WITH PROJECTS AND TAGS

IN E-CAT PROGRAMS

1.0 INTRODUCTION

This document is intended for users of Carrier and Bryant E-CAT programs who are not familiar with the concept of projects and tags as used in the E-CAT programs. Knowledge of the concepts described in this document will greatly enhance the productivity gain that E-CAT can offer.

Please note that the information contained here applies only to those E-CAT programs that have been written specifically for the Windows 95, Windows 98, Windows ME, Windows NT, Windows 2000 and Windows XP operating systems. It does not apply to those E-CAT programs that have been designed to run under DOS or the Windows 3.x operating systems.

1.1 OVERVIEW OF PROJECTS AND TAGS

Carrier and Bryant E-CAT programs are said to be *project-centric*. That is, all the input data supplied by the user, and all of the output data generated by the E-CAT program are associated with a unique project.

1.11 What is a Project?

All the data you enter and calculate in E-CAT is stored together within a "project". A *project* is simply a container for your data, and can be thought of as a file folder on your computer's hard drive. A project can hold data for a single E-CAT program, or several E-CAT and E20-II programs. For example, if you create a project for a building design job, it might contain load estimating and system design data from HAP (an E20-II design program), air handler selection data from AHUBuilder (an E-CAT program), and packaged rooftop selection data from RTUBuilder (another E-CAT program). Keeping this data together in a single container is often much easier to keep track of than storing the data in several separate locations.

1.12 How Projects are Created

There are three ways in which projects can be created within E-CAT programs. They are:

1. When you start up an E-CAT program for the first time, a default project is created for you. Typically, this project is called Untitled.
2. When working with an existing project, you may create a new project by choosing the Project:New menu option. Typically, this new project is called Untitled. This new project is typically "empty" in that it contains only default data associated with a clean, new project. It will not contain any data from the previous project you were working on.
3. When working with an existing project, you may create a new project by choosing the Project:Save As… menu option. You will be asked to provide a name for this new project. Notice that this new project will contain the data from your previous project, *but only for the E-CAT program being run*. Data from any other E-CAT or E20-II program associated with your previous project will not be carried along into your new project.

1.13 What is a Tag?

When entering project data into an E-CAT program, the data is organized into tags. A tag consists of information describing one equipment selection or performance run. It includes both the user's input data and the program's output data. Tags are sometimes referred to as *Mark Fors*.

A project can contain as few as a single tag, or it may contain dozens (even hundreds) of tags. The important point to understand is that each tag represents a specific piece of equipment that has been specified by the user or selected by the E-CAT program.

1.13 How Tags are Used

When a new, untitled project is first created, it typically contains a default, untitled tag. Normally, a user will start the equipment selection process by renaming the default tag and entering equipment requirements and specifications (eg., required cooling capacity, flow rate, condensing temperature, etc.) into the appropriate tag input fields.

Once all the input data has been entered, the E-CAT program displays a list of all Carrier or Bryant equipment that meets the requirements and specifications. The user then chooses which – if any – of the displayed selections are to be kept with the tag.

From this point, the user can add new tags to the project, change the existing tag(s), or generate schedules and reports for the project's tags.

A couple of notes on managing tag data:

- A tag can be changed by simply modifying its input data. If a project contains multiple tags, it may be necessary to open the desired tag (Tag:Open) before its data may be changed. Be aware that any change to a tag's input data will invalidate any performance data that was previously assigned to that tag.
- All tags contained in a project are saved automatically whenever the project is saved (Project:Save). If you exit the E-CAT program without saving the current project, any tag changes, additions and deletions made after the last project save will be lost.

1.14 How Project Data is Stored

When a new project is saved for the first time, you designate the folder which will hold the project files (either by accepting the default folder \E20-II\Projects*ProjectName* or by specifying a folder yourself). This folder is the permanent storage location of project data. When you open the project to work with its data, temporary copies of the project's data files are made. As you enter data, make changes and perform calculations, all this data is stored in the temporary copy of the data files. Only when you use the Save option on the Project Menu are the changes you've made are copied to permanent storage. Therefore, if you ever need to **undo** changes you've made to a project, simply re-open the project without saving the

changes you've made. When you re-open the project, the changes stored in the temporary copy of the data files are discarded, and data from your last project/save is restored.

1.15 Recommended Project Management Practices

Project data represents an important investment of your time and effort. Therefore it is important to safeguard your investment in project data. We recommend adopting the following practices when working with projects:

- Create a separate project for each job you work on. It is usually more efficient to keep data for separate jobs in separate projects. It is also safer to store data in smaller, focused units. If you keep data for all jobs in a single project, and this project becomes damaged, your data loss will be greater than if you keep data for separate jobs in separate projects.
- Use a descriptive name for the project so you can quickly recognize what it contains, both now and when you need to refer to the project in the future. Because the selection list for projects is arranged alphabetically it is useful to use a consistent naming convention. Many firms begin the project name with their internal project number followed by descriptive text (e.g., P2002-47 Lincoln School).
- Save early and often. While entering data, changing data and generating reports, save the project periodically. This practice is useful in the event that you make a mistake and need to undo changes. If the last time you saved the project was 15 minutes ago, undoing your mistake will only cause you to lose 15 minutes of work. On the other hand, if the last time you saved the data was 4 hours ago, undoing a mistake may cause you to lose 4 hours worth of work.
- Archive your data periodically for safekeeping. These days data on hard disks is relatively safe. However, it is still possible for hard disk drives to become damaged, or for files on the hard disk to be damaged or erased. Therefore it is a good practice to periodically archive your project data. Data can be archived to a separate location on your hard disk, to a different hard disk drive or to removable media such as a zip drive or floppy disks. For example, if you archive data for a large project at the end of each day and your hard disk drive fails, at most you will have lost one day's worth of work. On the other hand, if data for the same large project was never archived and your hard disk drive fails, all the project data would be lost.

1.2 PROJECT DATA MANAGEMENT

E-CAT programs provide a variety of features for performing common tasks with projects. This section describes the different features available to the user for managing their project data.

Creating a New Project

A new project is typically created when starting work on an HVAC design or beginning the task of selecting equipment for a job. The project will serve as the container for all your input and system sizing data for the job. To create a new project:

- Choose the New option on the Project Menu.
- If changes to the current project have not yet been saved, the program will ask you if you want to save the current project before creating a new one.
- Then a new "Untitled" project will be created. No data for this project will be permanently stored until the first time you use the Save option on the Project Menu.
- When you choose the Save option on the Project Menu for the first time for this project, you'll be asked to name the project and to choose the folder which will contain the project's data files. Further information about saving a project for the first time is provided in the help topic for Saving a Project as a New Project .

Opening an Existing Project

Before you can enter data, edit data and generate reports for an existing project , you first need to open the project:

- Choose the Open option on the Project Menu.
- If changes to the current project have not yet been saved, the program will ask you if you want to save the current project before opening another one.
- The Open Project dialog will appear. It contains a list of all existing projects. Select the desired project from this list.

The project you selected will be loaded into memory. When you are returned to the program's main window, data for the project you selected will be displayed.

Saving a Project

The Save option on the Project Menu is used to permanently store data you entered or changes you've made to a project . While working with a project, its data is stored in temporary copies of the project data files. Saving the project copies your new data and your modified data to permanent storage. To save a project, simply choose the Save option on the Project Menu. Note that when you save a new project for the first time, you will be asked to name the project and to choose the folder on your hard disk which will contain the project's data files. Thereafter, when you save the project, data will be copied to permanent storage in this folder automatically. The help topic for Saving a Project as a New Project provides further information on saving a project for the first time.

As a sound data management practice, we recommend saving the project periodically as you work with it. If you ever need to undo a mistake you've made, you can re-open the project without saving it. This restores the project data from your last project save, but any changes made since the last save will be lost. If project data is saved frequently, undoing a mistake will only cause a small amount of data to be lost.

Saving a Project as a New Project

The Save As option on the Project Menu is used to store changes to your current project data in a new project rather than the existing project. Typically this feature is used when making a copy of a project. The Save As procedure is also invoked automatically when saving a new project for the first time.

To save a project as a new project:

- First choose the Save As option on the Project Menu. If saving a new project for the first time, choose either the Save or Save As options on the Project Menu.
- You will be asked to specify a name for the new project on the Project Name dialog. By default, the software will store the project in a folder having the same name as the project. If you wish to store the project in a different location or change the name of the project folder features for doing this are provided on the Project Folder dialog.

Data will then be saved in the chosen folder. All subsequent changes to project data will be saved in this folder.

Deleting a Project

To delete a project :

- First, choose the Delete option on the Project Menu. The Delete Project dialog will appear.
- In the Delete Project dialog choose the project you wish to delete.
- Project data files for the E-CAT program you are currently running will then be erased. If the project does not contain data for any other E-CAT or E20-II programs, the project itself will be

erased. However, if the project contains data from other programs, the project will remain in existence along with the data from these other programs.

Example: A project contains *AHU*Builder and Air Terminal Selection data. You choose the Project/Delete option from within the *AHU*Builder. Only the *AHU*Builder data will be erased. The project will continue to exist and will contain only data for Air Terminal Selection.

The Project/Delete option should be used with care. When project data is deleted it is permanently lost and cannot be recovered.

Archiving a Project

The Archive option on the Project menu saves project data in one compressed file for safekeeping. A project is typically archived when saving it for backup storage, for future reference, or when transferring data from one computer to another. In order to archive data for a project:

- First open the project you wish to archive. When you choose the Archive option, data for the currently open project will be archived.
- Choose the Archive option on the Project Menu.
- You will then be asked to specify the name of the archive file and the destination drive and folder where the archive file will be written. Use a descriptive name for the archive file so you will be able to recognize it easily when you need to use it in the future. The destination folder you specify can be on a hard disk drive or on removable media such as a zip drive or floppy disks. When using floppy disks, it is helpful to have a set of formatted floppies ready. While the archive software will automatically format disks, the archive runs faster if you use pre-formatted floppies.
- The program then compresses the data files for all the programs you selected, placing the data in a single ZIP-format file in the destination folder you specified. When archiving to floppy disks, the archive file will be spanned across multiple floppies if this is necessary.

Note: Archiving data does not remove it from the project. It merely stores a copy of the data for safekeeping. You can continue working with the current project data after it has been archived.

Retrieving a Project

The Retrieve option on the Project menu restores data that was previously archived using the Project/Archive option. The Archive option saves project data in one compressed file for safekeeping. The Retrieve option uncompresses the archive data and makes it available for use again. A project is typically retrieved when receiving archive data from another computer, when referring to an old project that was archived for safekeeping, or when restoring backup data after a hard disk failure. In order to retrieve data for a project:

- First open the project you want to retrieve data into. Data is always retrieved into the currently open project. Often users create a new project to receive retrieved data so existing data will not be overwritten. For example, if the current project contains data for the Refrigerant Piping Program and you retrieve archived Refrigerant Piping data into this project, the original data will be replaced with the retrieved data. Thus, if you do not want to lose data in the current project, you must create a new project before retrieving.
- Choose the Retrieve option on the Project Menu. The program will display a dialog asking you to identify the archive file you wish to retrieve data from.
- Once a file is identified, the program will display a dialog listing the vital statistics for the archive file you selected. These statistics include the name of the archived project, and the program data contained in the archive. You are asked to confirm that this is the archive data you

want to retrieve. Press the Retrieve button to begin the retrieval, or press the Browse button to select a different archive file.

Data will then be retrieved from the archive file and placed in the current project. When you return to the program's main window, the data you retrieved will be displayed.

The Open Project Dialog

The Open Project dialog is used to select a project to be opened. This dialog appears when opening a project so its data can be edited or can be used to generate reports. The Open Project dialog contains three key components:

The **Select Project** list appears in the upper left-hand portion of the dialog. It contains a list of all available projects, or those containing data for a specific program, according to your specifications. To open a project, click on the desired project name in the list to highlight it and then press the Open button.

Initially the list of projects appears in descending alphabetical order. You can reverse this order by clicking on the "Name" heading of the list. Clicking on "Name" toggles the sort order from descending to ascending alphabetical order and vice versa.

The **List Projects of Type** drop-down list at the bottom of the dialog is used to specify how the project list should be filtered. Typically when the dialog first appears it will only show projects containing data for the program you are running. To show a list of all projects, use this drop-down list to select the "Show All Projects" option.

Command Buttons appear in the upper right-hand part of the dialog. These buttons are used as follows:

- Press the **Open** button to open the project whose name is highlighted in the project list. The project will be opened and you will be returned to the main window of your program.
- Press the **Cancel** button to return to the main window of your program without opening a project.
- Press **New** to create a new, untitled project instead of opening a project. Note that there are situations where the New button will not appear on the Open dialog.
- Press the **Help** button to display this help topic.

The Delete Project Dialog

The Delete Project dialog is used to select a project to be deleted. This dialog appears when you choose the Delete option on the Project Menu. The Delete Project dialog contains three key components:

The **Select Project** list appears in the upper left-hand portion of the dialog. It contains a list of all available projects, or those containing data for a specific program, according to your specifications. To delete a project, click on the desired project name in the list to highlight it and then press the Delete button.

Initially the list of projects appears in descending alphabetical order. You can reverse this order by clicking on the "Name" heading of the list. Clicking on "Name" toggles the sort order from descending to ascending alphabetical order and vice versa.

The **List Projects of Type** drop-down list at the bottom of the dialog is used to specify

how the project list should be filtered. Typically when the dialog first appears it will only show projects containing data for the program you are running. To show a list of all projects, use this drop-down list to select the "Show All Projects" option.

Command Buttons appear in the upper right-hand part of the dialog. These buttons are used as follows:

- Press the **Delete** button to open the project whose name is highlighted in the project list. Data from the current program in this project will be erased.
- Press the **Cancel** button to return to the main window of your program without deleting data.
- Press the **Help** button to display this help topic.

The Project Folder Dialog (Save As)

The Project Folder dialog appears when you press the Change Folder button on the Project Name dialog. Fetatures on this dialog can be used to change the location or name of the folder used to store project data. You may store project data in any folder on any drive your computer has access to, so long as the folder is initially empty. The Project Folder dialog contains four key components:

The **Tree View** in the upper left-hand portion of the dialog contains an image of the folders on the hard disk drive. This portion of the dialog is used to identify the folder you wish to store project data in. Features of the tree view can be used to perform the following tasks:

- **Navigation:** By double-clicking on folder names in the tree view, you can navigate up and down branches of the folder tree structure on your hard disk. Each time you double-click on a folder name, it is opened and all folders beneath it are displayed.
- **Selection:** To select a folder for the project, double-click on the desired folder name to open it and then press the OK button. Before pressing OK, check the "Selected Path" item at the bottom of the dialog to confirm the path you've specified for the project.
- **Creating a New Folder:** Because of the requirement that the project folder must initially be empty, it is often necessary to create a new folder to hold project data. This can be done directly from the Project Folder dialog. First double-click on the name of the parent folder and then press the New Folder button. For example, in the figure above the \E20-II\PROJECTS folder is currently selected and would be the parent folder; a new folder would be created beneath \E20-II\PROJECTS.

The **Drive Selection List** appears immediately below the Tree View. It is used to switch from one hard disk drive to another. If your hard disk is partitioned or you are connected to a network, a number of different drives may be available to your computer. To switch drives, choose the desired item from this drop-down list.

The **Selected Path** item appears at the bottom of the dialog. It lists the currently selected path. When you press the OK button, project data will be stored using this path. Therefore, it is good practice to check this item before pressing OK to make sure the path is as you intended.

Command Buttons appear in the upper right-hand part of the dialog. These buttons are used as follows:

- Press the **OK** button to save project data in the folder you've selected. Data will be stored using the path listed in the Selected Path item at the bottom of the dialog.
- Press the **Cancel** button to return to the main window of your program without saving

data.

- Press the **New Folder** button to create a new folder beneath the current folder. Example: If the New Folder button is pressed in the figure above, a new folder would be created beneath D:\E20-II\PROJECTS since this is the current path. When the New Folder button is pressed, a dialog appears asking the user to specify the name for the new folder.
- Press the **Help** button to display this help topic.

The Project Name Dialog

The Project Name dialog is used to specify the name for the project you are saving. The dialog appears when you save a new project for the first time, or when you choose the Save As option on the project menu. The dialog contains three basic elements:

The **Project Name** item appears in the upper left part of the dialog. It is used to specify the project name. The name can be up to 50 characters long and must be unique. It must not duplicate the name of any other project that currently exists.

Project Folder information appears in the lower left part of the dialog. By default, the project will be stored in a folder beneath \e20-ii\projects and the folder name will be the same as the project name. Most users choose to accept this default. However, if you wish to store the project in a different location or to name the folder differently, press the Change Folder button.

Command Buttons appear along the right side of the dialog. These buttons are used as follows:

- Press the **Save** button to save the project using the project name and folder location you've specified.
- Press the **Cancel** button to return to the main window of your program without saving data.
- Press the **Help** button to display this help topic.

The New Folder Name Dialog

The new folder name dialog is used to specify the name of the new folder you are creating. This dialog appears when you press the New Folder button on the Project Folder dialog. To use the dialog, simply specify your folder name and press the OK button. Command buttons on this dialog are used as follows:

- Press the **OK** button to create a new folder using the name you specified.
- Press the **Cancel** button to exit from the dialog without creating a new folder.
- Press the **Help** button to display this help topic.

The Retrieve Dialog

The Retrieve dialog appears after you choose the archive file whose data is to be retrieved . The dialog summarizes the contents of the file you've chosen and gives you the opportunity to continue with the retrieval of data from this archive file, or to return to the Browse dialog to select a different archive file.

The Retrieve dialog contains two categories of information arranged as tabs in a notebook. To switch from one tab to the other, click on the name of the tab. Contents of the tabs are described below. Following this discussion, uses of the command buttons at the bottom of the dialog are described.

Items on the **General Tab** (shown above) summarize the content of the archive file you've chosen:

- **Project Name** lists the name of the project for which data in this file was archived.
- **Contains Data For** lists the name of the program whose data is contained in the archive file.
- **Master Archive Version** defines format version for the archive file.
- **Archive Created** provides the date and time when the archive was created.
- **Archive Last Modified** provides the date and time when the archive was last changed.

Items on the **Properties Tab** (shown below) list the descriptive properties for the project whose data is stored in the archive file. Information on these items is provided in the help topic for Editing Project Properties .

Command Buttons appearing at the bottom of the dialog are used as follows:

- Press the **Retrieve** button to retrieve data from the chosen archive file. Data for the current program will be read from the archive file and inserted into your current project. For example, if you are running Hourly Analysis Program (HAP) v4.0, HAP v4.0 data will be retrieved from the archive file. If you are retrieving into a new project which has not yet been saved, project descriptive data from the archive file will also be retrieved. If you are retrieving into a project that has already been saved, project descriptive data will not be read from the archive file.
- Press the **Browse** button to return to the Browse dialog to choose a different archive file. Often when archive file names are not sufficiently descriptive, it may be necessary to choose a series of archive files one by one and inspect each file's data before you find the file you're looking for. The Browse button provides a way to jump back and forth between the Retrieve and Browse dialogs as you search for the right archive file.
- Press the **Cancel** button to return to the main window of your program without retrieving data.
- Press the **Help** button to display this help topic.