Advanced Installation Guide
for
Carrier
eDesign Software

Carrier Software Systems
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Syracuse, New York

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1. Introduction

This Guide applies to the new generation of Carrier eDesign software introduced beginning in 2022. It applies to versions starting from those listed below. Note that earlier versions use a different installation architecture and therefore are out of scope for this Guide.

> Hourly Analysis Program (HAP) v6.0
> Block Load v4.2
> Building System Optimizer v1.7
> Engineering Economic Analysis v3.1
> Hourly Analysis Program (HAP) (Legacy) v5.2
> Refrigerant Piping Design v5.2
> System Design Load v6.0

Installation for these programs involves execution of a single file which automatically installs the software to the local computer to the C:\ProgramFiles (x86)\ or C:\ProgramFiles\ folder in accordance with Windows operating system conventions. However, IT staff at engineering firms may wish to install the software differently for either of the following two applications:

1. **Silent Installs to Multiple Computers.** To efficiently install software to multiple end user computers, installation needs to run without need for user interaction.

2. **Installation to Customized Location.** Install the software to an alternative drive, folder, file server or other device.

This Guide explains installation procedures for both applications. Silent installation is described in Section 2 and installation to customized locations is explained in Section 3.

2. Silent Installation

This section explains how to perform silent installation of the software.

When deploying software to multiple end user computers, IT staff sometimes wish to automate the installation. Successful automation involves eliminating the need for user interaction and the display of intermediate windows. This is called a "silent" installation.

A standard eDesign software installation displays three windows: a Welcome window, a progress bar window and a Finish window. The first and third windows require user interaction. If errors or warnings occur during installation, those message boxes also require user interaction. The purpose of silent installation mode is to suppress some or all these windows and requests for user input.

The general procedure, examples, and glossary subsections below describe silent installation for a single computer. Principles conveyed here can be applied to creating a script to perform such a silent installation to multiple computers in one batch.

1. Launch a Command Prompt window.

2. At the command prompt enter a command with the following format

   `installfile.exe /switches`

   where:

   installfile.exe is the name of the installation file

   /switches is one or more command line switches, each starting with "/". See examples and glossary below for details.

Examples

The following examples use installation of HAP v6.0 as the example case.

1. Perform a Silent installation

   `EDG-HAP600.EXE /silent`

   - User interaction will not be required.
   - Only the progress bar window will appear.
   - Any warnings or errors will display a message and will require user action.
   - If a computer restart at the end of installation is required, the user will be prompted.

2. Perform a Very Silent installation

   `EDG-HAP600.EXE /verysilent`

   - User interaction will not be required.
   - No windows will appear.
   - Any warnings or errors will display a message and will require user action.
   - If a computer restart at the end of installation is required, the user will be prompted.

3. Perform an Ultra Silent installation

   `EDG-HAP600.EXE /verysilent /suppressmsgboxes /norestart`

   - User interaction will not be required.
   - No windows will appear. A file extraction progress bar may appear in some cases.
   - Warning and error messages will not appear. The installer will automatically act on these messages as shown in the glossary.
   - If a computer restart is required at the end of installation, it will be suppressed.

/log="*path and filename*"

Writes the installation log file to the path and file name specified as *"path and filename"*. If "*path and filename*" only specifies the name of a file, the log file is written to the folder containing the installation file. When /log is not used, an installation log file is written to the user's TEMP folder. The log file lists actions taken during installation. It can be useful for debugging when /SUPPRESSMSGBOXES is used with /SILENT or /VERYSILENT to hide warning and error messages.

/norestart

Prevents the installer from restarting the computer after a successful installation.

Must be used with the /omit_dotnet and /omit_vcredist switches found below, followed by running the .Net Framework and Visual C++ Redistributable installations separately. Those installers offer their own norestart options.

Typically used with /silent or /verysilent.

/omit_desktop_icon

Prevents creation of a desktop icon for the software during installation.

/omit_dotnet

Prevents installation of Microsoft .NET Framework. Note that eDesign software requires .NET Framework v4.8 or later. Without this the software will not run. If this option is used you must make sure .NET Framework v4.8 or later is installed by other means as described below:

- Download the installer from:
  https://dotnet.microsoft.com/en-us/download/dotnet-framework/net48
  Either the web installer or offline installer is OK to use.
- Optionally, run in quiet & norestart mode following the instructions on the following page (scroll down for table of options):
  https://learn.microsoft.com/en-us/dotnet/framework/deployment/guide-for-administrators#create-a-package-and-program-for-the-net-framework-redistributable-package

/omit_vcredist

Prevents installation of the Microsoft Visual C++ Redistributable software. Note that only HAP, System Design Load, and Building System Optimizer require the Visual C++ Redistributable. These programs currently require the 2015 (14.xxx) version. If this option is used you must make sure the Visual C++ Redistributable is installed by other means as described below:

Install Microsoft VC redistributable 32-bit ([reference](#)):
- Note: this is version 14.xxx
- Download from: https://aka.ms/vs/17/release/vc_redist.x86.exe
- Optionally, run in quiet norestart mode following instructions here: https://learn.microsoft.com/en-us/archive/blogs/astebner/mailbag-how-to-perform-a-silent-install-of-the-visual-c-2010-redistributable-packages

Install Microsoft VC redistributable 64-bit ([reference](#)):
- Note: this is version 14.xxx
- Download from: https://aka.ms/vs/17/release/vc_redist.x64.exe
- Optionally, run in quiet norestart mode following instructions here: https://learn.microsoft.com/en-us/archive/blogs/astebner/mailbag-how-to-perform-a-silent-install-of-the-visual-c-2010-redistributable-packages

/silent

Install without showing the Wizard and background windows but do show progress windows.

/suppressmsgboxes

Do not show any warning or error message boxes which appear during installation.

This switch only works when used in combination with \silent or \verysilent.

The installer will automatically use the following responses to warning and error messages:

- YES in a "Keep Newer File?" message.
- NO in a "File exists, confirm overwrite" message.
- ABORT in an Abort/Retry message.
- CANCEL in a Retry/Cancel message.
- YES to continue for situations involving a "low disk space", "directory already exists", or "directory does not exist" warning, and for an "exit setup?" message.
- YES to restart when a "restart required" message appears.

/verysilent

Install without showing the Wizard, background windows, and the progress windows.

3. Customizing the Installation Location

This section explains how to install the software at a customized location. Such locations could be on a local drive or on a file server drive or on other remote devices.

> NOTE: Previously the decision to install eDesign software on a file server / share was driven by the two considerations below. Under the new software architecture consideration #1 is eliminated. Therefore, file server installations might only be required when #2 is an objective.
>
> 1. **Efficient data sharing between users.** Under the old software architecture the most efficient approach for sharing user data across the network was to install the software on the network drive. That created a single shared project index so all users could automatically see and access any project created by other users. Although data could be shared across the network from installs on local laptops or workstations, that was not automatic and required user action.
>
> 2. **Single installation instance when supported or required by specific third-party tools.** Some IT managers preferred to have a single central instance of the software rather than multiple instances installed on end user laptops or workstations as a way of minimizing maintenance.
>
> Under the new software architecture, a project is stored as a single file. The project file can be saved anywhere and moved at any time. Data sharing is as simple as it would be for sharing a Word or Excel file. Therefore, in the new software architecture consideration #1 is eliminated which may eliminate the need for a file server installation.

The general procedure, examples, and glossary subsections below describe installation to any arbitrary file location to which the user has access, including a network file server or other remote device.

Note: Any non-local installation may affect program loading and runtime. A standard local installation is recommended when possible.

General Procedure

1. Log in to the computer on which the eDesign program is to be installed. This could be a computer whose local drive will be used for installation; or it could be any computer which has access to a remote / network drive on a file server.

2. Launch a Command Prompt window.

3. At the command line enter a command with the following format

   installfile.exe /switch

   where:

   installfile.exe is the name of the installation file

   /switch is a command line switch specifying the drive and path for installation. This is necessary to override the standard installation path on C: drive. See examples and glossary below for details.

NOTE: Once the software is installed with a customized installation location on a computer, any subsequent attempts to install on that computer will automatically install to the same customized location. In order to force an installation to a different location, execute the the installation from the command line specifying that different location. If the software is uninstalled, then subsequent execution of the install file will revert to C:\Program Files(x86).

The following example uses installation of HAP v6.0 as the example case.

1. Install software to a mapped drive network folder

    ```
    EDG-HAP600.EXE /dir="H:\APPS\Carrier HAP 6.00"
    ```

    *   The software will be installed on the drive mapped as H: under the \APPS folder in a sub-folder named "Carrier HAP 6.00".
    *   This installation only needs to be done once.
    *   The IT admin is responsible for creating startup shortcuts, file associations, etc. on each user computer. Installation will create one instance of the shortcut on the computer used to perform the installation. This instance can be copied to user computers if they all have the same drive mappings.

2. Install software to a network folder using the UNC path name

    ```
    EDG-HAP600.EXE /dir="\\CSSVR08\APPS\Carrier HAP 6.00"
    ```

    *   The software will be installed in a folder under the \APPS share or folder on server CSSVR08 in a sub-folder named "Carrier HAP 6.00".
    *   This installation only needs to be done once.
    *   The IT admin is responsible for creating startup shortcuts, file associations, etc. on each user computer. Installation will create one instance of the shortcut on the computer used to perform the installation. This instance can be copied to user computers if they all have the same access to the destination server.

Glossary of Applicable Switches

/dir="*x:\directoryname*"

Override the standard installation destination in the installer, and instead install to the indicated drive "*x:*" and folder path "*directoryname*".