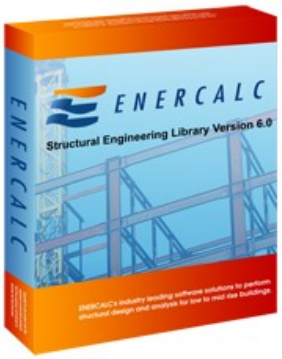
# Structural Engineering Library

## Version 6




**ENERCALC, INC**

# Structural Engineering Library

**Version 6.0**

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***by Michael D. Brooks, S.E., P.E.***

***A product of***

***ENERCALC, INC.***

# CLOUD VERSION : Structural Engineering Library Version 6



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**Vesion 6 User's Reference**
**March 2010**
**Corona del Mar, CA, USA**

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# Part I

# 1 Introduction

Last Revised: 8 December 2015

## 1.1 General

Welcome to the end of installation, Product Control Codes, activating, updating software, moving Project Files between computers, and much more.

ENERCALC now offers our users the ability to use the complete **Structural Engineering Library** Version 6 as a “Cloud” hosted system. This means that the software runs on our server system located at the giant Amazon Web Services infrastructure. You use the software in an Internet browser or with a special installed EXE program. The software runs and looks EXACTLY as the installed version does on your desktop, yet you can use it on ANY computer with an Internet connection. This includes tablets, Macintosh and iPad devices.

You can use proven browsers like Internet Explorer (Microsoft Edge), Chrome, Firefox & Safari which support HTML 5. We have developed proprietary interface subsystems that allow our software to duplicate its user interface remotely. The entire system is solid and well proven!

Our Cloud design is quite sophisticated. It is a virtual machine platform with a system of load balancers that bring new virtual servers online as the global usage demand for the program grows during the day and shuts them back down when demand decreases at night. Once a server load exceeds a certain level a new one is brought online. This guarantees you excellent performance 24/7.

Non-cloud software installed on your computer uses Project Files that are stored locally. You must move those file around manually as needed to suit your work location. In the Cloud we use a large SQL Database Server to store your projects so they are available any time you log on.

You can print calculation reports to your local printer, move your existing project files to the Cloud and move Projects from the Cloud to your local computer as Project Files for archiving.

Major benefits are:

- **No installation**: Just link to a web page and launch our software
- **No Activation or Activation Codes**: Just enter your user number and password to access
- **No Updating**: We move our updates directly to the Cloud server image for instant availability. Instead of 5,000+ users having to download updates, the entire Cloud user base is updated instantly.
- **No file shuffling**: You have one location for all of your projects with the ability to upload local project files and download projects for local use or archiving.

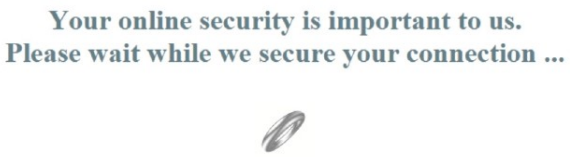
We’re confident this is an exceptionally simple and convenient way of using our software!

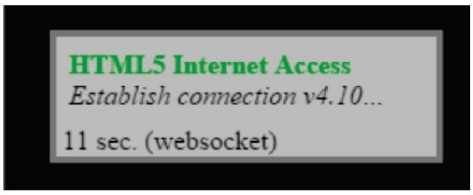
## 1.2 Two Options for Access

There are two options to use the Structural Engineering Library Cloud version:

***Using your Internet Browser:***

The SEL-Cloud Version can be launched from your web browser using a web address that is provided to licensed users. After launch you will see two messages in your browser window. These indicate the status of the software launching for your specific usage on our cloud server. EACH LAUNCH IS A SPECIFIC instance of the software. This launch time can take between 3 and 30 seconds. Once launched you will see the Login window where you can sign in with your user information and get going.



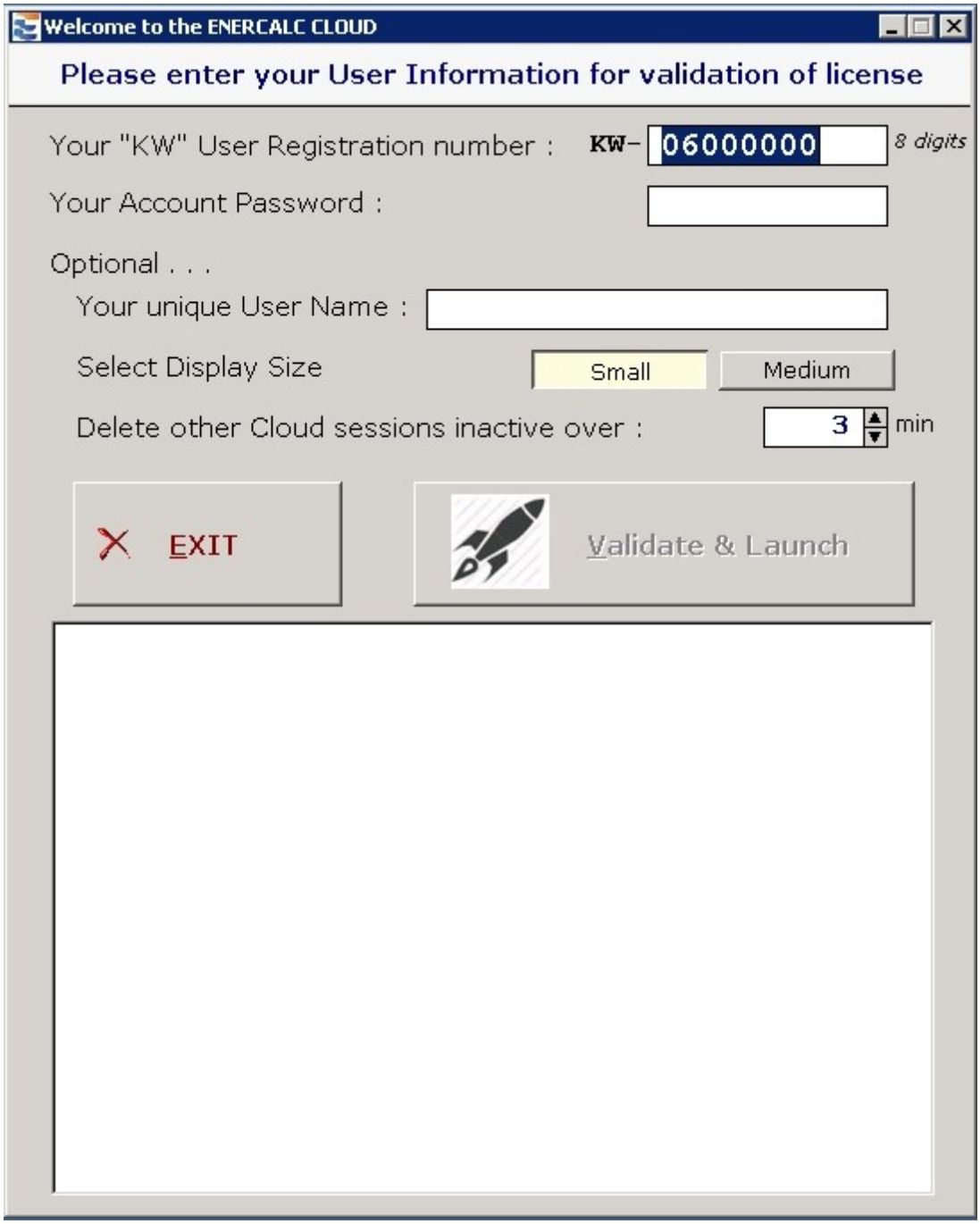




***Using our special EXE program:***

You install a small Windows EXE. When run it will launch the Cloud version BUT it is actually running on the server. Simply download this installer and then launch: [www.enercalc.com/cloudlauncher](www.enercalc.com/cloudlauncher)

## 1.3 LOGIN Credentials Window

After launch you will need to enter the numeric digits of your “KW” user registration number and your password. Your password would have been provided to you in any of your license information emails. Then click [**Validate & Launch**]




Note: At this time we can’t store this information and enter it automatically.

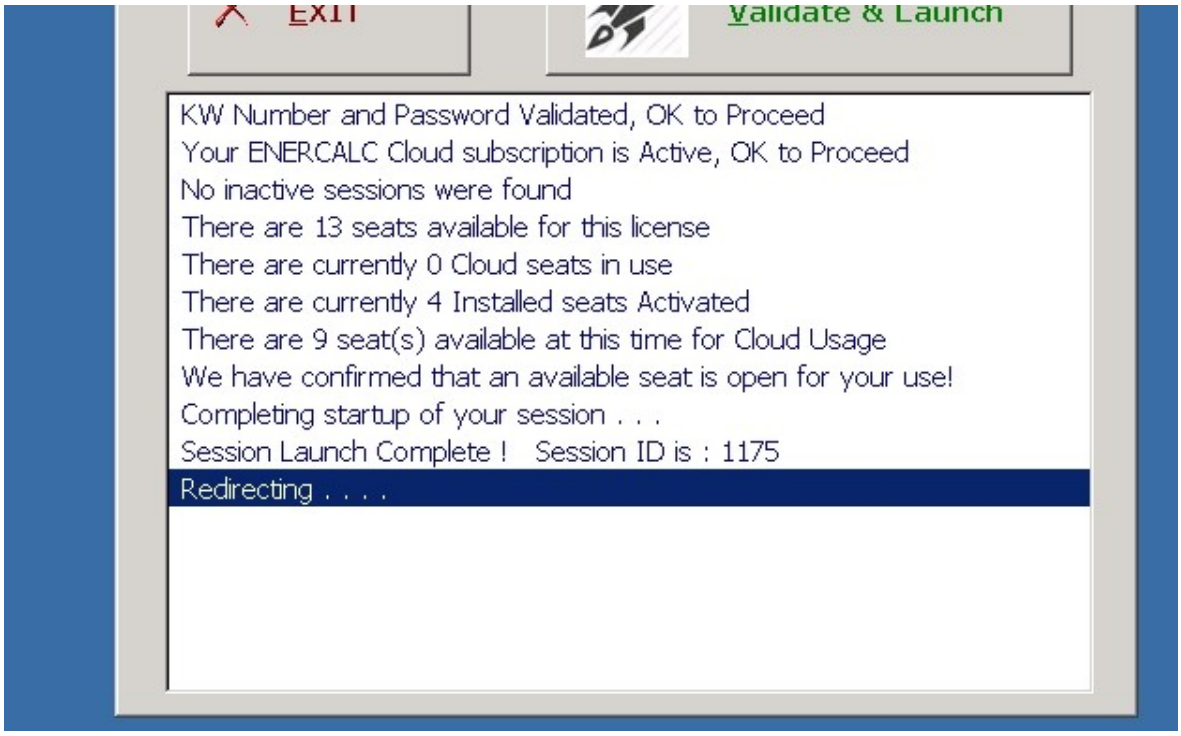
**Your Unique User Name** is an entry where you can enter a specific name that our system will remember and use for various settings when this name is entered. When blank the software uses the settings for your "KW" number in general. As time moves on, this "User Name" will be able to remember lots of added functionality.

**Select Display Size** allows you to launch the software at different resolutions. This allows easy scaling for different size display screens. This selection is needed because "dragging" the corner of the window to resize is not available in the Cloud version.

"**Delete Other Cloud Sessions Inactive Over XXXX minutes**" is a safeguard to be sure that any cloud sessions that someone started and forgot about, that were left running, are removed to be sure you can start your session.

Now that you have entered your KW number and Password click [**Validate & Launch**]. The validation process will continue and you will typically see this screen below. It will pause for a couple of seconds before continuing to the software system display.

The list of steps lets you know what checks have been made, the number of activated installed seats, number of other currently running cloud seats, and confirmation that all is fine!



# Part II

# 2 Usage

Enter topic text here.

## 2.1 Project List & Project Manager

When the software launches you will see the new PROJECT LIST window. For current users of the installed ENERCALC SEL this can be compared to the list of Project Files on your computer that you see when the software starts.

In a Cloud system things work differently because your projects are stored on our centralized secure SQL database system. On this window we list all of the files that you have created....either by using the Add button or by uploading Project Files from your computer.


Here are explanations of the various controls on this window:

**Exit Program**: Ends your program session and exits.

**Import**: Provides information on the internet link you can use to move an “EC6” Project File from your computer to your Cloud user account.

**Export**: For the highlighted project the system begins the process of sending you an ENERCALC project file.

**Archive**: Moves the highlighted project from the “active” list you see here to an “archive” list. This helps you hide projects so this list is not so lengthy.

**Add**: Allows you to add a new project.

**Open Project**: Opens the highlighted project for usage. This is similar to loading a Project File for use in the installed version of the software.

**Refresh**: Re-reads the project list from the storage server.

**Show Archives**: Displays the projects that you had previously “Archived”. You are then given the chance to move them from “archive” to “active”.

**Rename Project**: Allows you to rename the highlighted project.

**Clicking on a project in the list**: When you click on a project name in the list the information on the right side of the window will be updated and then you can perform an action on it.

**Menu**: The menu offers some selections that are useful.

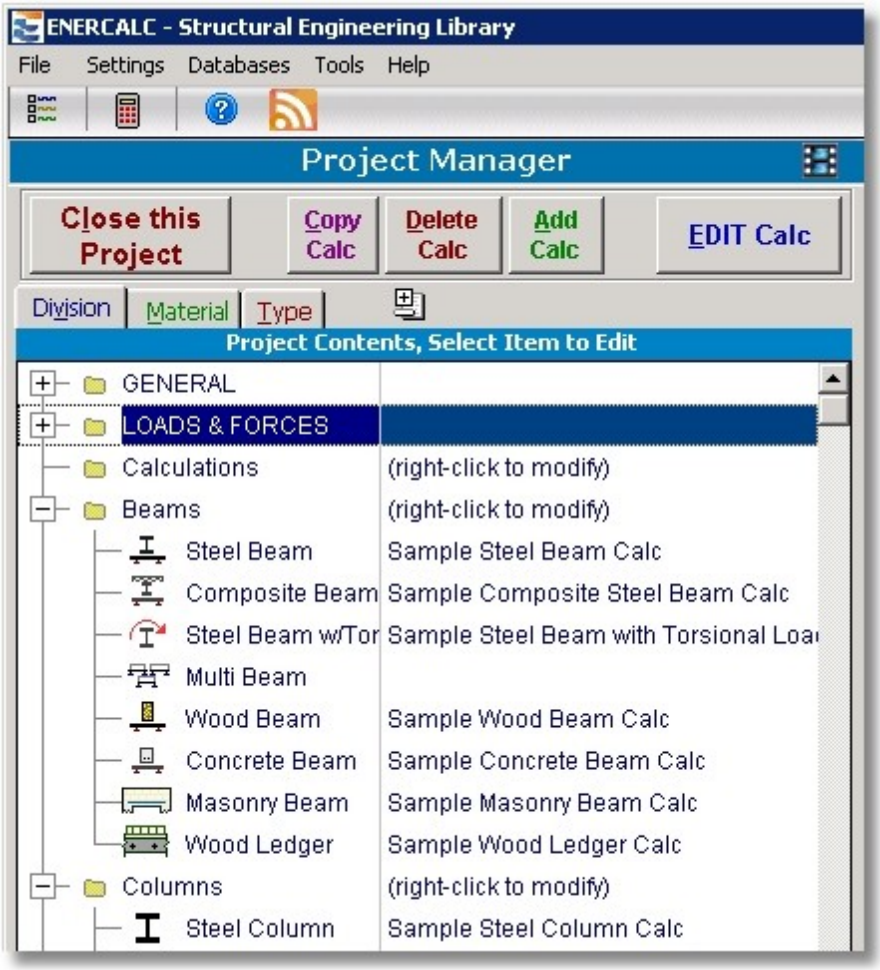
## 2.2 Selecting a Project and Using [Open Project]

When you highlight a project and click [**Open Project**] the display will change to display the calculations within your project.

**THIS IS NEARLY IDENTICAL TO THE PROJECT MANAGER IN THE INSTALLED VERSION.**

At this point we request that you refer to the Structural Engineering Library Version 6 documentation. It is available online here: www.enercalc.com/sel_help

The main buttons are different however:




**Close this Project**: Closes this open project and returns the display to view the Project List

**Edit Calc**: The highlighted item or calculation is displayed for editing.

**Add Calc**: Allows you to add a new structural calculation to your project.

**Copy Calc**: Takes the information for the currently highlighted calculation and creates a new calculation from that data.

**Delete Calc**: Deletes the highlighted calculation.

## 2.3 How Your Project Data is Stored

Your data is stored in a large and secure database in our Cloud server infrastructure. We have a completely separate server dedicated to this task. This high memory, multi-processor database server is needed to be sure that when hundreds OR THOUSANDS of users are working at once the data storage functions are handled immediately. We use SQL to handle the actual database storage architecture. The actual storage capacity is immense as we know that with our large user base we can have many Terabytes of project information to store.

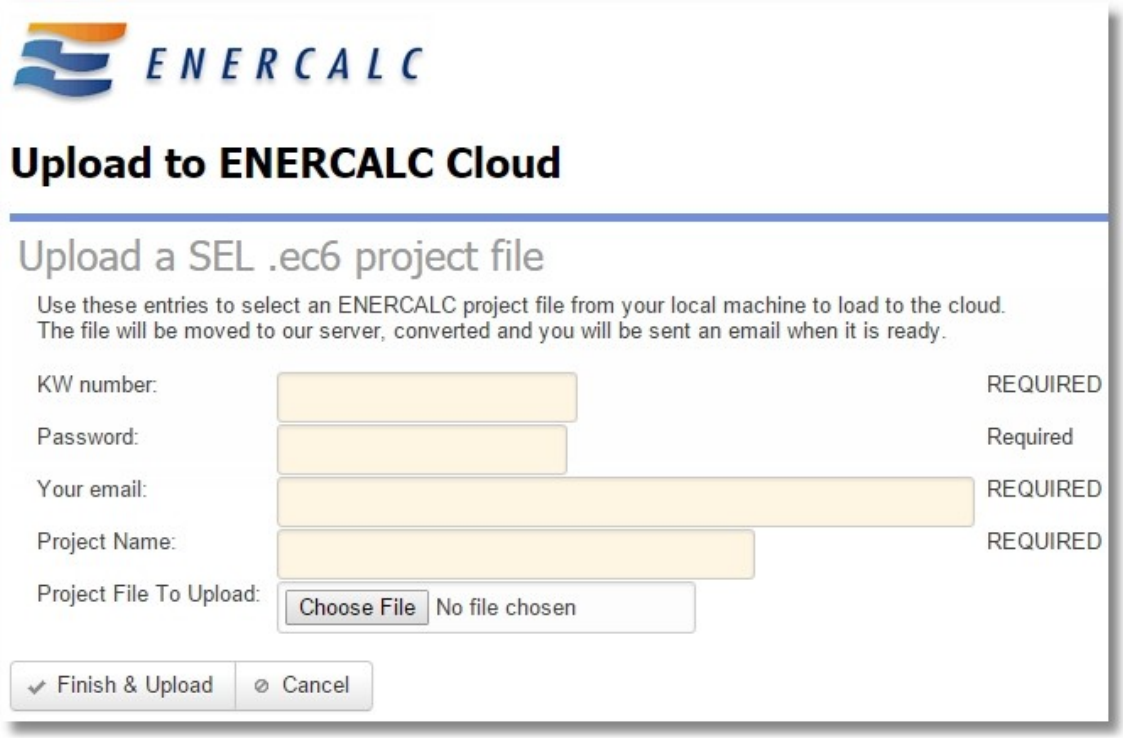
The main Project data are backed up in full every Sunday, snapshotted twice a day, and backed up automatically via log backups so that the system will lose no more than 5 min of activity (the last 5 minutes) if a crash occurs..

## 2.4 Moving Project Files Between Computer & Cloud

You can easily move projects between your local computer and your Cloud account. Although the information is stored differently in the Cloud database than your local "EC6" project files it is seamless to move between the two in our system.

***Upload EC6 Files to Cloud:***

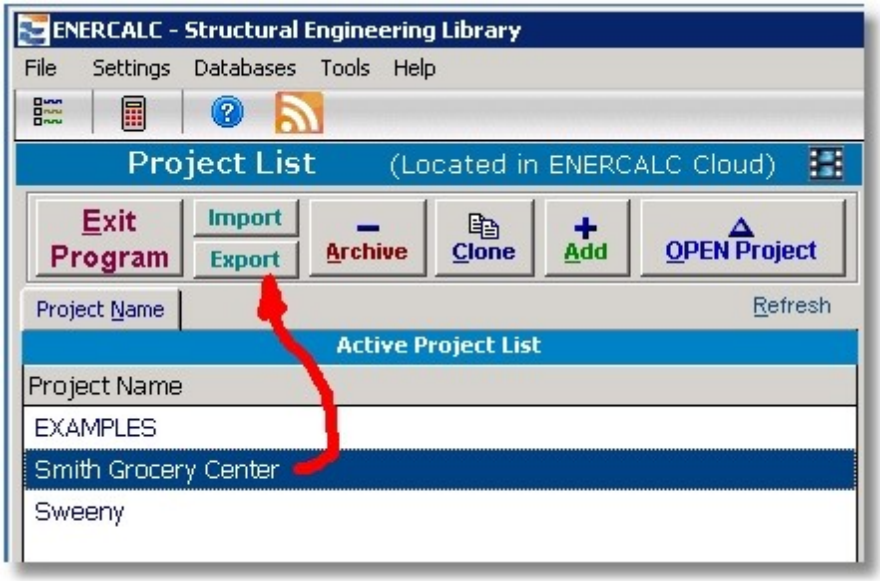
Moving EC6 project files from your local computer to the cloud is done using a web page: www.enercalc.com/cloudupload



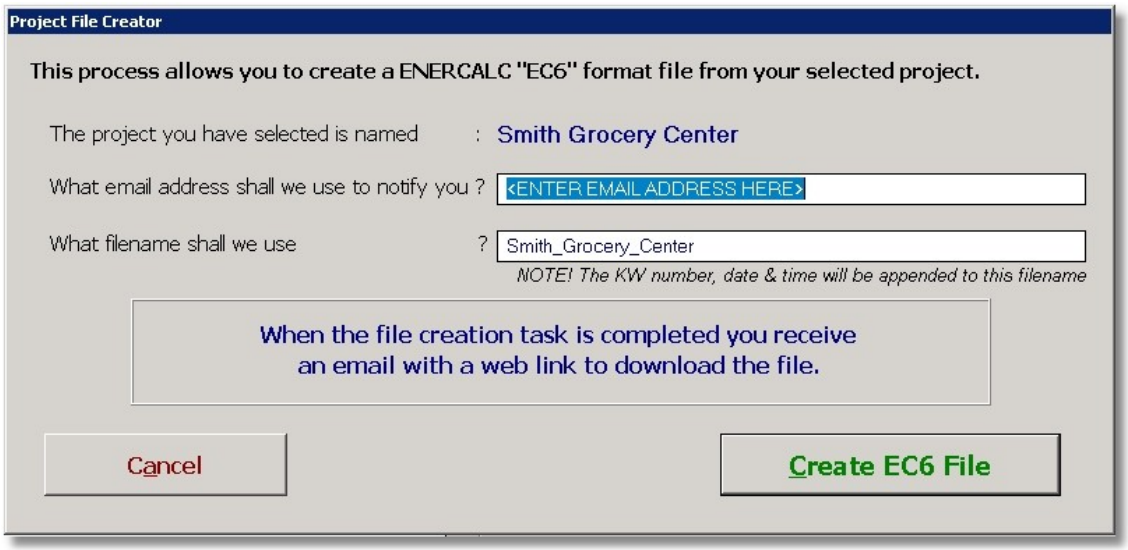

The web page that will be displayed is self-explanatory. When you click [**Finish & Upload**] the system will let you know that you will receive an email when your project has been converted and is available in your Cloud account.

***Export a Project from the Cloud to use as an EC6 file:***

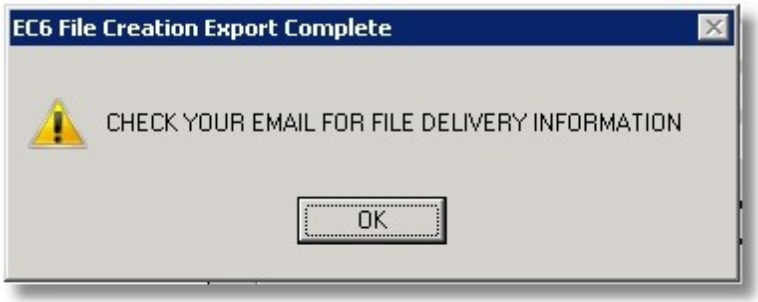
This is done while you are using the Cloud version.




With a project highlighted in the list click the [**Export**] button. This will then display another window where you can specify the name of the Project File you would like and the email address where the notification of availability is sent.




Fill in the two entries and click [**Create EC6 File**]. In a moment you will be notified that the process has been started and you can check your email for notification that the file is ready for download.




Dear ENERCALC User:

At your request a backup file has been created from your Project and stored on our Cloud server.
Use the link below to download your ENERCALC project file from our Cloud server to your local computer.

This file can be used with your installed Structural Engineering Library Version 6.

https://s3-us-west-1.amazonaws.com/enercalc-cloud-sel-files/Smith_Grocery_Center_KW-06000215_9Dec2015_2-13PM_Eastern.EC6

This file was created on 9Dec2015 at 2:13PM_Eastern for user registration number KW-06000215.
The filename was created from the project name you have specified, your KW number and the date & time of the file creation.

The above link will be good for 72 hours after the file was created.

Sincerely,

Cloud Services
ENERCALC, INC
CloudFileDelivery@enercalc.com

## 2.5 Printing

Printing using a program running in a web browser happens differently than a program running on your local computer. Because there is no way to connect the server to your local printer an alternative method is used.

When you select to [**Print**] your calculation reports, a PDF file is sent to your Internet Browser and opened in a new tab. You can then print your calculation from that browser page.

## 2.6 Cloud vs. Installed Version Differences

Because the underlying system is different in many ways it is necessary at this time to remove certain functionality from the Cloud version.

The items removed include:

- Project Printing
- Quick Calc
- User defined section databases
- Importing calculation into projects from other projects
- Saving calculation reports into the projects
- Allowing engineer professional registration stamps to print on reports
- Arbitrary resizing of the program window (although we will have preset selections soon)
- Creation of technical support emails and faxes within the software.

Project printing, user defined sections and importing are top on the list to be added as soon as possible.

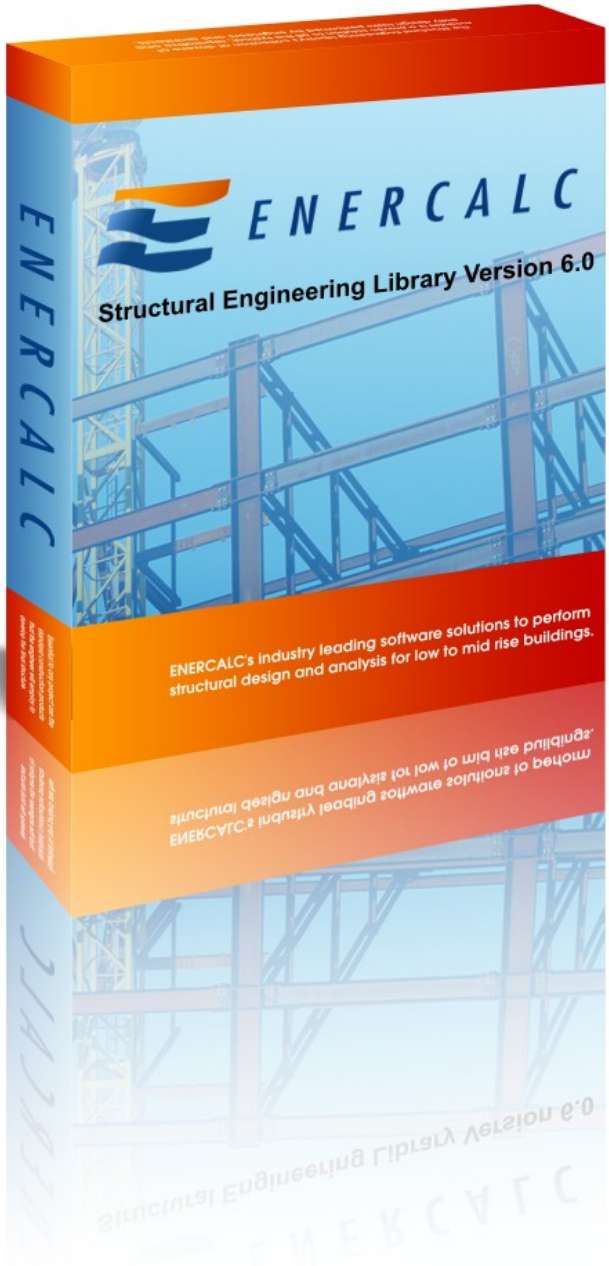
## 2.7 Cloud Security

Security of our information is now front and center on the top concern list for all of us. So we want to let you know about how secure our Cloud software version is. In many ways it is far safer than having our software installed on your computer.

First, our cloud software cannot access your computer. The software is running on remote cloud servers and you are only seeing a representation of the running program on your screen. So there is a fundamental and very notable layer of isolation between you and our running programs.

Second, our systems are hosted at Amazon Web Services which takes security extremely seriously and has won top ranking for their security measures. The most important information to secure is your project calculations. That data is stored on our secure SQL servers hosted at Amazon. The data connections are ONLY within the Amazon secure perimeter....it is NOT exposed to internet connected computers. This architecture eliminates essentially any possibility it is even visible to the “outside world”.

Third, our software does not send you any files except project files at your request. Those files are not programs...they are simply your calculation data in a simple database style format. Those files are completely benign and devoid of any functionality.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Structural Engineering Library Version 6.0
ENERCALC's industry leading software solutions to perform structural design and analysis for low to mid rise buildings.
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