

SOLIDWORKS Certification Exam Guide & Practice Test



**CSWA-E: Certified
SOLIDWORKS Associate
Electrical**

Contents

About This Guide.....	3
The CSWA-E Certification.....	4
CSWA-E Exam Details.....	5
How to Prepare for the Exam.....	6
How to Take This Practice Exam.....	7
Taking the Real Exam.....	8
Test Questions.....	15
Answer Key.....	17
Frequently Asked Questions.....	18
Helpful Sites	21

About This Guide

This guide contains information, advice, and practice for obtaining your advanced professional certification in SOLIDWORKS Drawing Tools. Here, you will find:

- An overview of SOLIDWORKS Certifications
- Details about the CSWA-E Exam
- Advice on preparing for and taking the CSWA-E Exam
- A Practice CSWA-E Exam and answer key
- Directions to useful SOLIDWORKS websites

The CSWA-E Certification

SOLIDWORKS Certifications are a benchmark to measure your knowledge and competency with SOLIDWORKS software. A certification helps you stand out from the crowd and showcases your expertise to businesses and professionals alike—a valuable asset in a competitive job market.

A few popular SOLIDWORKS Certifications include:

- CSWA: Certified SOLIDWORKS Associate
- CSWP: Certified SOLIDWORKS Professional
- CSWPA: Certified SOLIDWORKS Professional Advanced:
 - Sheet Metal
 - Weldments
 - Surfacing
 - Mold Tools
 - Drawing Tools
- CSWE: Certified SOLIDWORKS Expert
- CEPA: Certified Enterprise PDM Administrator

Why take the CSWA-E Exam?

The CSWA-Electrical certification sets you apart as a person who has successfully demonstrated their understanding of the tools and functionality found in the SOLIDWORKS Electrical environment. For hiring managers, it acts as a valuable assessment to attest for an individual's competency, thereby reducing the amount of time and energy required to research prospective candidates.

All candidates receive electronic certificates, business card logos, and optional personal listing in the SOLIDWORKS Certification directory when they pass.

CSWA-E Exam Details

The CSWA-E covers the following topics:

Electrical theory
SOLIDWORKS Electrical Schematics
SOLIDWORKS Electrical 3D
Electrical design
Installation

Total Questions: 50 Multiple Choice Questions (1 point each)

Total Points: 50

Points Needed to Pass: 35

Maximum Time: 60 min

How to Prepare for the Exam

Don't let the exam questions take you by surprise! We recommend that you practice the skills in the "CSWA-E Exam Details" section above, and that you ask for help from experienced SOLIDWORKS users.

No details to the solutions for either this sample exam or the real test will be shared by the SOLIDWORKS Certification team. Please consult your SOLIDWORKS reseller, your local user group, or the on-line SOLIDWORKS forums at forum.solidworks.com to review any topics on the CSWA-E exam.

A great resource is the SOLIDWORKS website (SOLIDWORKS.com).

- For training courses, go to **Home > Support > Training > SOLIDWORKS Courses**.
- To download models to practice on, go to **Home > Support > Training > SOLIDWORKS Training Files**
- You'll find a wealth of access to videos, tutorials, blogs, events, and fellow users in the SOLIDWORKS Community at **Home > Resource Center**

You can also log into my.solidworks.com to browse lessons, forums, models, and much more.

Last but not least, make use of this exam guide to review realistic exam questions, look over important topics, and familiarize yourself with the exam procedure.

How to Take This Practice Exam

1. You do not need to run SOLIDWORKS Electrical for either the practice or actual test. But you may wish to have SOLIDWORKS Electrical running to help answer some of the questions.
2. To simulate real conditions, it is best NOT to print this exam.
In the real test, the VirtualTester client window runs concurrently with SOLIDWORKS, requiring you to switch between applications. Keep this document open and consult it while running SOLIDWORKS.
3. This guide includes an answer key after the practice exam.

Taking the Real Exam

The real exam can be taken on your personal computer at a time of your choosing. The CSWA-E Exam is administered through the Tangix TesterPRO Client, an application that you may download from the SOLIDWORKS VirtualTester website. You will need a connection to the Internet throughout the exam.

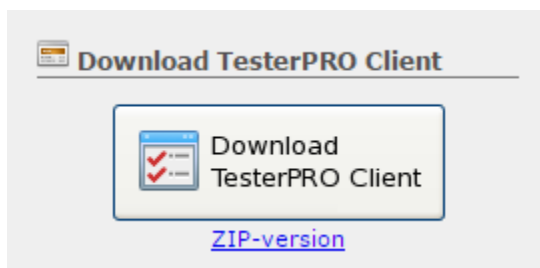
If you will be running the client on a separate computer from the one that is running SOLIDWORKS, make sure there is a way to transfer files from one computer to the other. You may be required to download SOLIDWORKS files during the real test to be able to correctly answer some of the questions.

To learn the testing procedure in VirtualTester, if you have a MySOLIDWORKS account, please refer to this video:

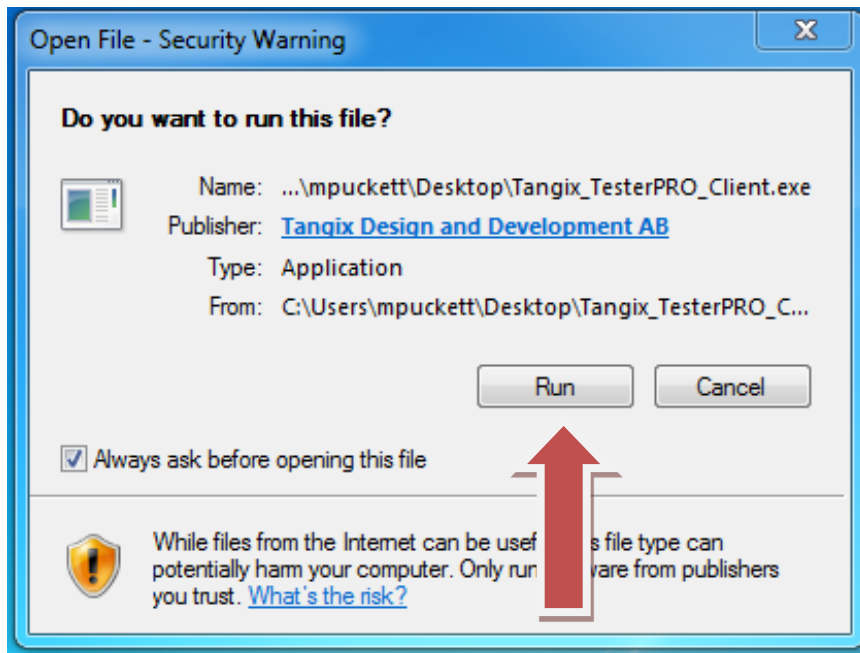
<http://my.SOLIDWORKS.com/mylearning/lessons/489/installing-and-viewing-the-test-software>

Alternatively, you may follow these steps:

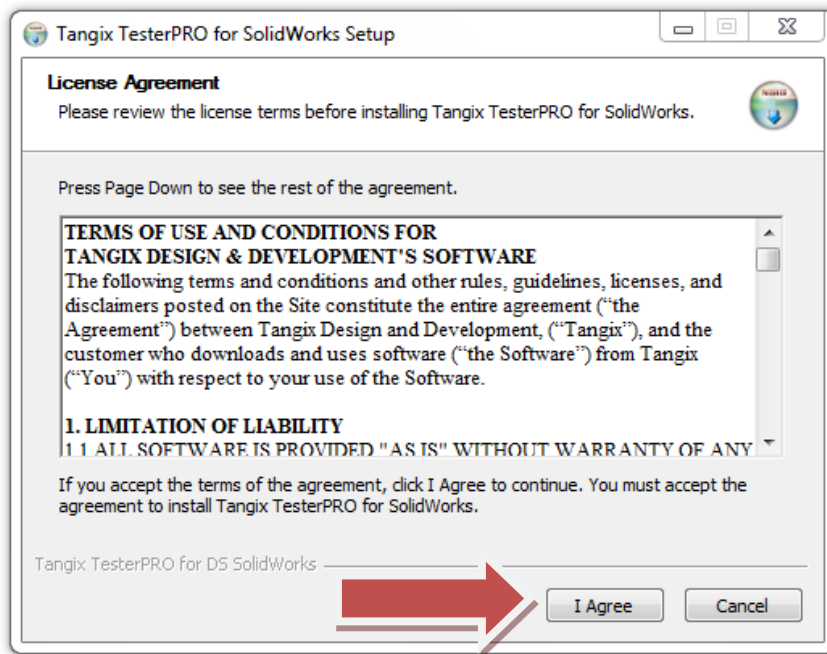
1. Visit the SOLIDWORKS VirtualTester Certification Center at <https://SOLIDWORKS.virtualtester.com/>.
2. Locate and click the button (right hand side of page) to download the Tangix TesterPRO Client:



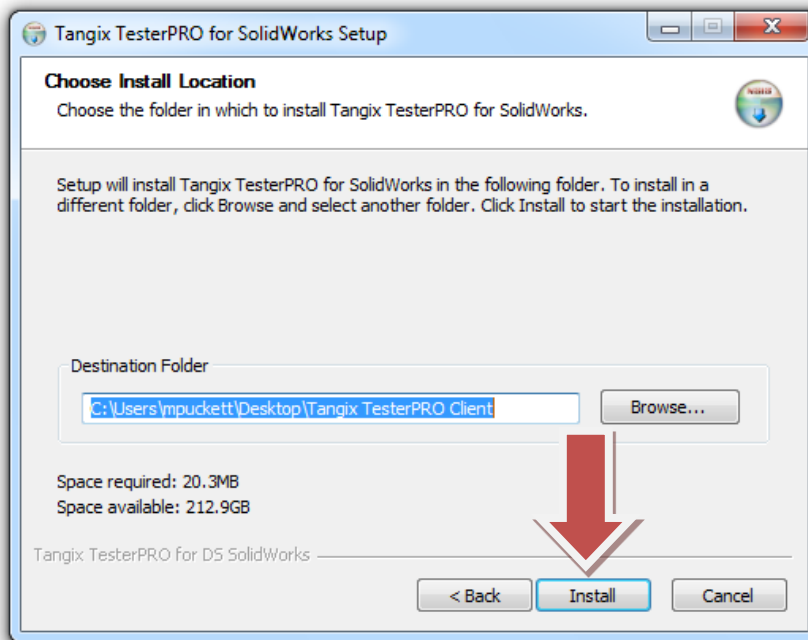
3. Open the downloaded folder and run the executable file:



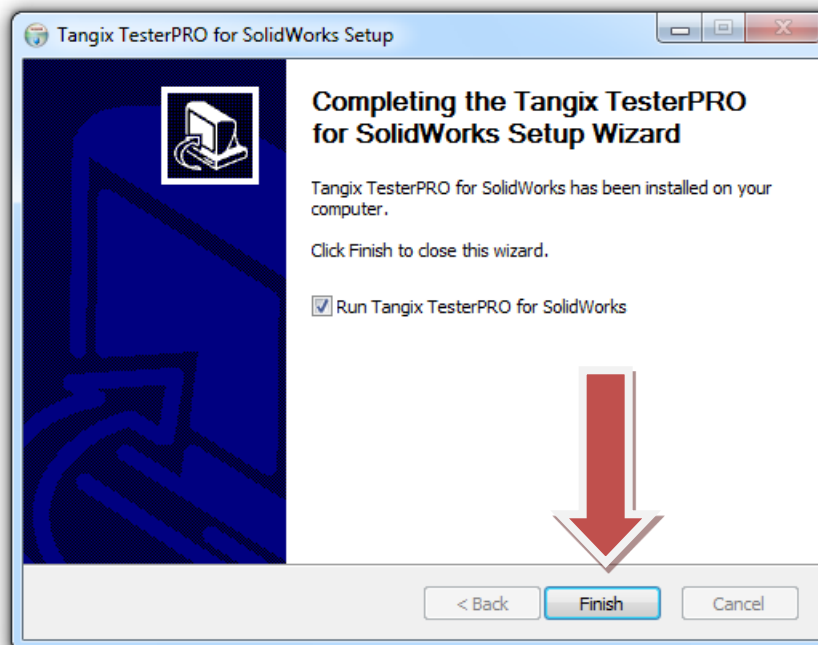
4. Agree to the License Agreement.



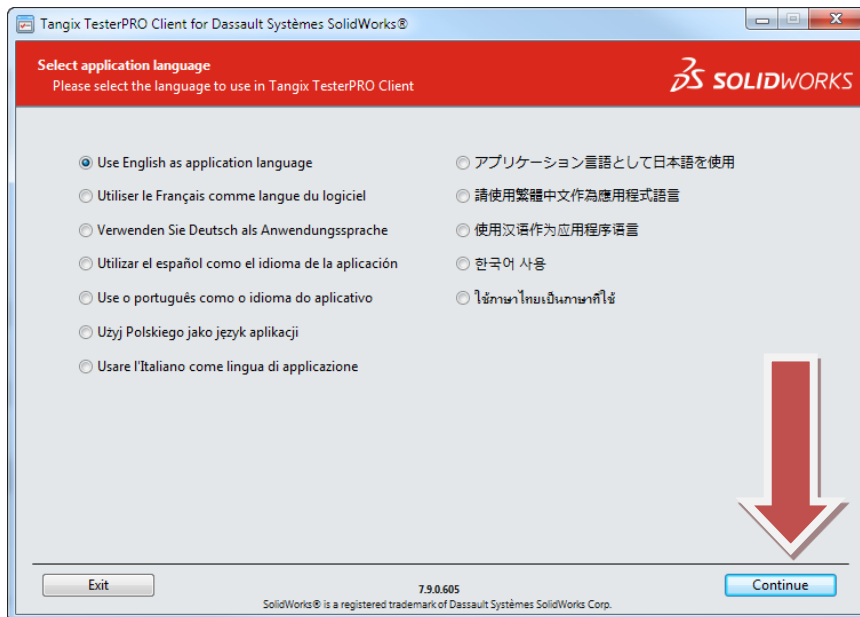
5. Click the install button.



6. Click the finish button.



7. When you run the program, select your language and click Continue.



If you have already taken a SOLIDWORKS Certification Exam, skip to step 9.

8. If this is your first exam, you will need to create an account. Fill in the required fields and click continue:

Write down your login credentials for future use!

Skip to step 10.

9. If you have already taken a SOLIDWORKS Certification Exam, select the option below, fill in your credentials, and click continue.

The screenshot shows the 'Candidate Information' window of the Tangix TesterPRO Client. The window has a red header with the SolidWorks logo and the text 'Candidate Information' and 'Connect to VirtualTester'. Below the header, there are two radio button options. The first option, 'I already have a VirtualTester UserID and password', is selected. Below this option are input fields for 'E-mail:' and 'Password:'. The second option is 'I do not have a VirtualTester UserID. Create one with the following information:'. At the bottom of the window, there is an 'Exit' button on the left, a version number '7.9.0.605' in the center, and a 'Continue' button on the right. A small disclaimer at the bottom states 'SolidWorks® is a registered trademark of Dassault Systèmes SolidWorks Corp.'

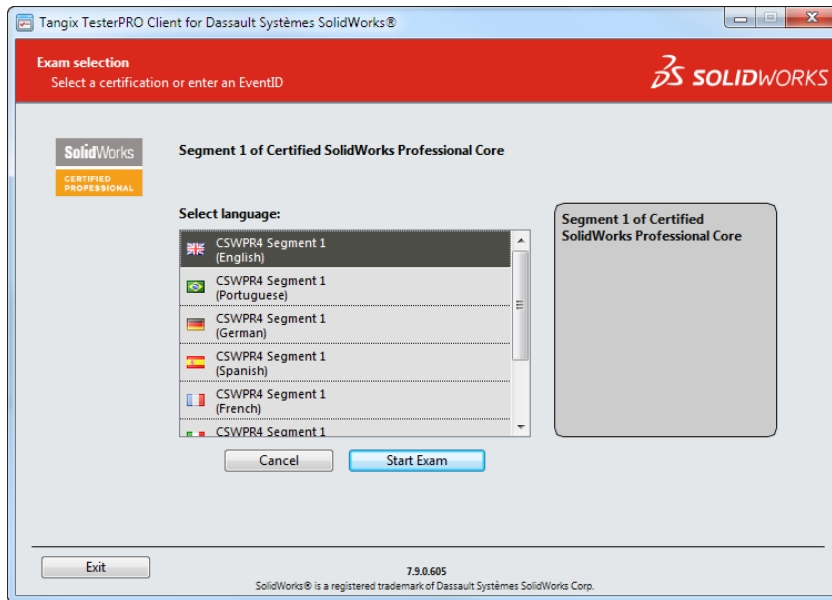
10. On the exam selection page select an exam that has the words 'Start Exam' next to it (only exams that you have credits for will show as available):

The screenshot shows the 'Exam selection' window of the Tangix TesterPRO Client. The window has a red header with the SolidWorks logo and the text 'Exam selection' and 'Select a certification or enter an EventID'. Below the header, there is an input field for 'Event ID / Voucher:' with a 'Submit' button and an information icon. Below this, it says 'or select a Certification in the list:'. There is a list of certifications with a scrollbar on the right. The list includes: 'Segment 1 of Certified SolidWorks Professional Core' with a 'Start Exam' button; 'Segment 2 of Certified SolidWorks Professional Core' with a 'Start Exam' button; 'Segment 3 of Certified SolidWorks Professional Core' with a 'Start Exam' button; 'CSWPA-WD Certified SolidWorks Professional - Advanced Weldments' with a '\$' icon and 'No Credit'; and 'CSWA-S Certified SolidWorks Simulation' with a '\$' icon. At the bottom of the window, there is an 'Exit' button on the left, a version number '7.9.0.605' in the center, and a 'Continue' button on the right. A small disclaimer at the bottom states 'SolidWorks® is a registered trademark of Dassault Systèmes SolidWorks Corp.'

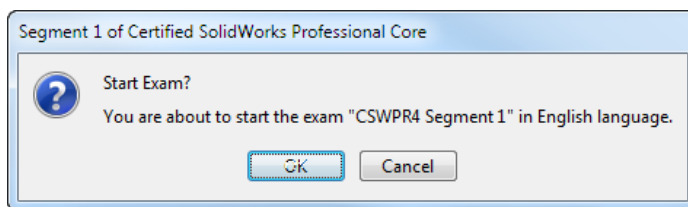
If you do not have credit for the exam, do one of the following:

- If you have an Event ID or Voucher, type it into the field on this page and click "Submit."
- Purchase an exam credit online. This may be found on SOLIDWORKS.com: Click **Support > Certification > Exam Registration**.

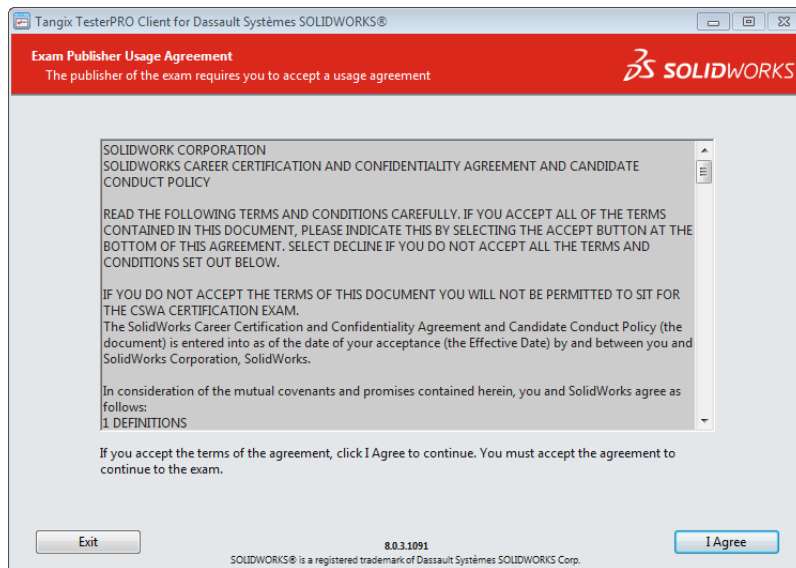
11. You may be asked to select a language. Select a language and click "Start Exam."



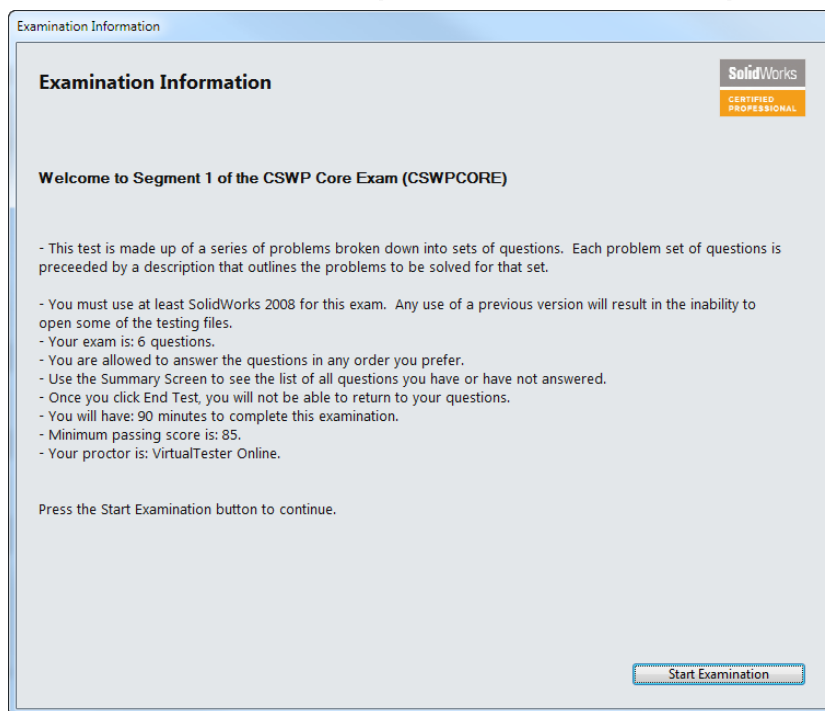
12. Confirm the exam you are about to begin:



13. Agree to the Confidentiality Agreement and Candidate Conduct Policy.



14. On the Examination Information page, read the information and then click "Start Examination", this will begin the timed portion of your exam.



The practice exam begins on the next page.

Test Questions

1. What is a consequence of an equipotential mismatch (also known as a short circuit)?
 - a) Accelerated current flow
 - b) Extreme temperature rise
 - c) Interconnect fusing
 - d) All of these answers

2. Is it possible to change the direction SOLIDWORKS Electrical analyzes drawings when numbering?
 - a) Yes
 - b) No

3. How many users can work on a scheme sheet at the same time?
 - a) 1
 - b) 2
 - c) 3
 - d) 4

4. What is the meaning of a green indicator light on industrial machinery?
 - a) Machine ready; Safety.
 - b) Attention, caution/marginal condition. Change of conditions.
 - c) Danger/alarm, abnormal condition needing immediate attention.
 - d) Normal condition confirmation.

5. What color should NOT be used for a Start/On push-button?
 - a) Grey
 - b) White
 - c) Red
 - d) Black

6. Ohm's Law is Voltage = Current x Resistance or $V=IR$

- a) True
- b) False

7. SOLIDWORKS Electrical can be used to develop cable harnesses

- a) True
- b) False

8. What does Connection Point 1__0 represent?

- a) First circuit, First terminal
- b) Second circuit, First terminal
- c) First circuit, Second terminal
- d) Second circuit, Second terminal

END OF TEST

Answer Key

1. d: All of these answers
2. a: Yes
3. a: 1
4. a: Machine ready; Safety.
5. c: Red
6. a: True
7. a: True
8. b: Second circuit, First terminal

Frequently Asked Questions

Below is a series of common questions regarding SOLIDWORKS Certifications. To peruse more FAQs, please visit the SOLIDWORKS Certification FAQ page under **Home > Support > Certification > FAQ**.

1. What is the Certified SOLIDWORKS Professional – Model Based Design (CSWA-E) exam?

The CSWA-E exam is a comprehensive, non-proctored online exam that tests an individual's understanding of the tools and functionality found in the SOLIDWORKS MBD collection of tools and environment.

2. What resources do I need to take the CSWA-E?

The CSWA-E test is an online test that can be taken on any computer that has a connection to the Internet and optionally running SOLIDWORKS Electrical. **You are responsible for providing your own working copy of SOLIDWORKS. A commercial license of SOLIDWORKS or the SOLIDWORKS Student Edition will be adequate for the exams.**

The test runs in its own client window separate from SOLIDWORKS. You can either run the exam software on the same computer as your SOLIDWORKS software or in a separate computer next to the one running SOLIDWORKS. Please note that if you are taking the test on a separate computer that you have some means to transfer files from the computer running the testing client to the computer running SOLIDWORKS. Dual monitors are recommended but not required.

As stated above, an internet connection is required for the exam. At this point there are no provisions for a stand-alone exam.

3. What is the policy on retaking the CSWA-E?

There is a 30-day waiting period before retaking the CSWA-E exam. Also, the user will be required to purchase another exam credit to retake the test.

4. What do I receive when I pass the exam?

You will receive certificates for each exam that you pass. You receive an email that directs you to our electronic certificate access page. There you can login and download your electronic certificate(s) and electronic business card logo(s); CSWPs also receive discounts to partner products and SOLIDWORKS World events. For more information refer to www.solidworks.com/cswp.

5. Can the exam be paused?

No. Once started, exams cannot be paused.

6. I took the exam and my Internet connection failed when the test ended. How do I report my results now?

The tester software will retry to connect for ~2 minutes. If the connection is still not available, an error message will be displayed and a TXT file will be saved on your desktop. The name of the file is: Tangix_TesterPro_Error_Date_Time.

Please send this file to support@tangix.com

7. Will my answers be lost if my computer crashes? Will I lose my testing credit/have to pay again if my computer crashes?

You will have to start the examination over and no refund will be available. Once you click 'take exam' your exam credit will be redeemed and we cannot refund your payment or voucher. If your computer crashes, your answers are not recoverable.

8. Which commercial version of the software should I use to take the CSWA-E exam?

For all exams, the minimum version necessary is listed on the information page of that exam. Please go to <http://www.solidworks.com/certification> and click on the individual exam information page links on the left.

9. Will a certificate be mailed out to me once I pass an exam?

SOLIDWORKS no longer mails out certificates to individuals who have passed an exam. We have made it a simple download that you can print from your computer so you no longer have to wait to receive it. To print your certificate, simply visit www.virtualtester.com/solidworks/user.php. On that page, simply click the "Print My Certificate" button and follow the on-screen instructions. Please note that not all exams have printable certificates.

Helpful Sites

SOLIDWORKS Home:

www.SOLIDWORKS.com

SOLIDWORKS Resource Center:

<http://www.SOLIDWORKS.com/sw/resources.htm>

SOLIDWORKS YouTube Channel:

<https://www.youtube.com/user/SOLIDWORKS>

MySOLIDWORKS:

my.SOLIDWORKS.com

Training Pages:

<http://www.SOLIDWORKS.com/sw/support/software-training-certification.htm>