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# Inventor® Certified User Exam Study Guide

Inventor® 2020 Edition



Thom Tremblay



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# Chapter 2

## Preparing to Take the Exam

The process of preparing for certification begins with you. While there are tools and materials available to help you prepare, it is ultimately your decision to pursue certification and set everything in motion.

### When will you be ready?

It is really up to you to decide when you're ready to take the certification exam. There are general guidelines that can be found, but this chapter will focus on offering you information and suggestions to help you make the decision on when you're prepared.

### How much experience do I need?

You can find recommendations online that suggest a minimum of 150 hours experience using Autodesk Inventor before attempting User certification. While this is not a bad suggestion, the reality is far more subjective. It's important to keep the suggested 150 hours in perspective. Using a select group of tools repeatedly for 150 hours is not an effective way to prepare for the exam. You need to spend time in each of the objective domains that are in the exam.

Using the certification objectives as a reference, review them carefully and see how many topics you recognize as tools or workflows that you've used and are comfortable with. If you find certification objectives that you're not familiar with, you can begin looking for learning materials that address these topics.

In the following chapters of this book, descriptions are offered on the certification objectives along with explanations on how and why the tools are used. This is intended to help you understand the value of learning a tool that you might not use in your normal day-to-day or classroom work, but there is no step-by-step learning practice offered on the objectives.

## User Certification objectives

The certification objectives for this Autodesk Inventor User exam focus on the tools that are commonly used to support the core workflows of Autodesk Inventor. These objectives are organized into groups or domains that make it easier to sort through when reviewing

The table below will show the objective groups and the topics within them. Use this as a quick reference to find the topics that you're less familiar with if you have limited time to review all of them.

<b>USER INTERFACE AND NAVIGATION</b>	
	Change the viewpoint using the ViewCube
	Change setting of the ViewCube
	Understand Inventor file types and standard templates
<b>SKETCHING</b>	
	Apply dimensions to a sketch
	Assign geometric constraints
	Project geometry
	Create and modify geometric shapes
	Modify an Inventor model
<b>PART MODELING</b>	
	Create extrude features
	Create a pattern of features
	Create a shell feature
	Apply fillets and chamfers
	Create hole features
	Create revolve features
	Place threads

<b>BROWSER EDITING</b>	
	Suppress and un-suppress part features
	Toggle visibility of features and sketches
<b>ASSEMBLY MODELING</b>	
	Apply basic assembly constraints (mate, flush, insert, directed angle)
	Ground base component of an assembly
	Apply an offset to constrained parts
	Determine the degrees of freedom of a component
	Create a presentation model
<b>DRAWING</b>	
	Control sheet size and add a title block
	Select and place a front view
	Create a drawing view from an existing view
	Add annotation and dimensioning to a drawing
	Add sheets to a drawing
	Create a drawing view based on an assembly and presentation file
	Add balloons to a drawing

## User versus Professional

An easy way to frame the differences between the User and Professional certification exam objectives is extensibility. The professional exam includes objectives on subjects like weldments, advanced shaped description, and advanced assembly functions. This is why the professional exam recommendation for experience is a minimum of 400 hours, and once again, these are hours spent across the variety of tools related to the objectives.

It is not necessary to take the User exam prior to taking the Professional exam. However, people new to certification and relatively new to Autodesk Inventor should find the user exam a challenge and a great way to become accustomed to the certification process. With User certification achieved, they can continue to develop their skills and add Professional certification when they're ready.

## Is there a way to practice?

There are two different ways to prepare for the exam. The first is to get training on the tools addressed by the objectives or work through self-paced learning materials on the same. This will cover the Inventor skills, but many people find the exam itself to require a level of skill. Reading the exam problem and being able to mentally formulate a process to solve it is not a natural skill for many people. Practicing this can be useful if you're uncomfortable taking timed exams. Besides taking the actual exam, there are a couple of different ways to practice taking the test.

## Appendix of this book

The Appendix of this book contains thirty questions similar to those in an actual exam that do not require using Inventor to find a solution. Try working through these without the use of the software as a reference the first time through and then compare your answers to see where additional work needs to be done to prepare. This will help you to visualize the tools and help train you to think about how Inventor works to solve the problem. If you're working with others also preparing to take the exam, you can use these questions to quiz one another as well.

## Autodesk Authorized Training Center (ATC)

Authorized Training Centers offer in-person and online live training on Autodesk products. Some might offer training specific to certification exams, but even if they don't, selecting a few standard courses could still cover most if not all of the certification objectives.

To find an Authorized Training Center or Authorized Academic Partner near you, you can use the locator link on the program website, enter your location, distance you're willing to travel, industry, and product you want training on. The locator will generate a list of training centers with information on how to contact them.

## Partner Locator

Find a local partner that understands your unique business and industry needs. Use the Autodesk Partner Locator to find resellers, partner-developed solutions, implementation or support services, and more.

Contact Autodesk for [most African countries](#). | [View list of countries](#).

Please note that the search functionality currently does not support Internet Explorer 10 Compatibility View. To turn it off please press F12 and select Browser Mode: IE10

The screenshot shows a search form with the following fields and controls:

- City\***: Search for City
- State**: Search for State
- Country**: Select Country (dropdown)
- Distance**: None (dropdown)
- Units**: km (dropdown)
- Search by Name**: Enter Partner Name (with search icon)
- Partner Type**: Reseller (dropdown)
- Industries**: Select Industries (dropdown)
- Products**: Search for Product (dropdown)
- Buttons**: Clear, SEARCH (with arrow)

## How do I take the exam?

Because the exam is an objective assessment of skill there is an elevated level of security around the contents of the exam and access to it. Presently the exam is only administered at a certification center and it requires the center to have a proctor to verify that external resources weren't used for the exam.

This protects the value of the exam and certification as a whole by making sure that people are certified based on their skill with Inventor and not their ability to use a search engine to find an answer.

## Find a certification center

When you are ready to take the exam, the first step is usually finding a place to take it. At <http://www.certiport.com/locate> you can search for a certification center based on your location and the certification that you are pursuing. Some schools set themselves up as certification centers as well to be able to offer their students easier access to the exams.

If a center does not list specific times and dates for the exam you are looking for, contact them for information. A website, phone number or contact e-mail should be listed in the search results. Even if they do list times and dates, it is a good idea to contact the centers to make sure there is no other information that you need to be able to secure an exam time.

## Purchase and register

Before taking the exam, you will need to have an account. The account can be created on its own or when purchasing a voucher through the [shop.certiport.com](http://shop.certiport.com) website. Through the Certiport store you can currently purchase bundles that can include retakes or GMetrix practice exams. The Certiport account can be used for all future certifications including certifications outside of the Autodesk software tools. Pearson/Certiport offers certification for Microsoft, Adobe, and other products. If you have taken another certification exam through that company, you can use your existing login for accessing Autodesk certifications as well.

If you will be taking the exam through your school, they might be able to assist you with creating your account. If you choose to purchase a voucher you will have a number that entitles you to take the exam. The certification center can validate that number and use it to connect the exam with your account. The cost of the Autodesk Inventor User certification might vary depending on if you purchase it from the Certiport store. Schools offering the exam might offer a discount and process the voucher information for you.



## Tips for taking the exam

The Inventor User exam is thirty (30) questions and the exam time is a maximum of fifty (50) minutes. Before beginning the exam, carefully read all of the instructions regarding the tools used for the exam and any other requirements. The time spent reading instructions is not counted against your time to complete the exam.

The Autodesk Inventor User Certification exam is primarily questions that will ask you to perform a task or series of tasks in the software. You will not only need to know how to perform the task but also how to get the answer from the model or drawing.

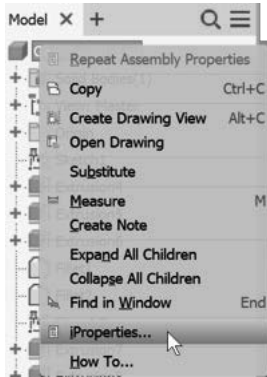
Many of the exam questions will ask you for a volume of the model or the value of a center of gravity for the model once the work is completed.

## Start the software before beginning the exam

This suggestion will be in the pre-exam instructions, but it is important enough to note separately. In order to use the software and complete the exam form you must be able to toggle between them. To do this, Inventor must be running before you begin the exam.

Once you're in the exam application you can use the Alt+Tab key to switch between them. This makes it very easy to quickly work between the programs.

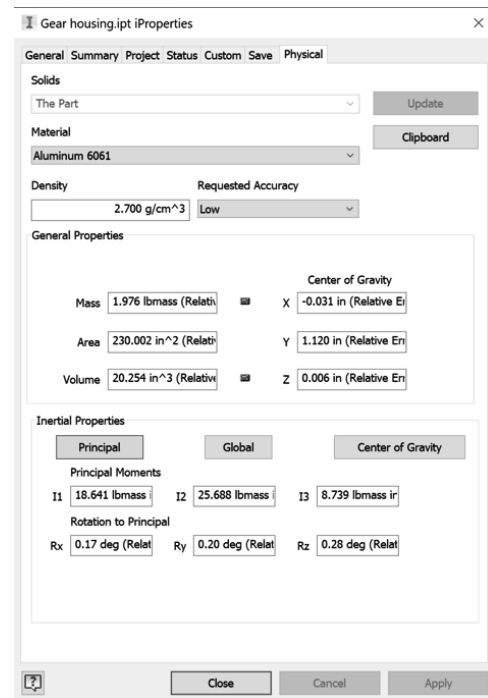
## iProperties dialog



A frequent source for the answer you need is the iProperties dialog. It can be accessed by a right-click on the model in the browser. The iProperties dialog has seven tabs. The one you will need information from is the Physical tab. The physical tab offers the Mass, Volume, and Center of Gravity information on the model. When you first enter the tab that data might not be displayed. Simply click the Update button to process the model.

*Note: It is critical that you do not change the precision level of the information as it might give you a result that the exam grading software does not recognize and mark the question as incorrect.*

The answer the exam will be looking for is the entire number displayed in the dialog. If you choose to copy the result from the iProperties dialog and paste it into the answer area of the exam, be sure to copy all of the digits or letters displayed.






## Be prepared to take notes

The Certification center should provide you with a sheet of paper and writing utensil. This can be very useful for results in the software that you cannot copy to the clipboard. You will not be able to remove any written notes from the room where the exam is being taken. This is another step to ensure the quality of the exam and its value.

## Mark and return to difficult question

This is true regardless of the exam's subject. When taking a timed exam it is best practice to pass over a question that you do not immediately recognize how to solve and move on to a question that you immediately know how to answer.

Button	Action
NEXT ►	This button will move you forward to the next screen.
◀ BACK	This button will move you backward to the previous screen.
CALCULATOR 	This button will display a calculator. This button will be available to you once the test begins.
REVIEW ✓	This button will allow you to quickly review all questions.
HELP ?	This button will allow you to refer to the information contained in this tutorial at any point during your exam.
RESTART APP 	If for any reason the application has closed or is frozen you may restart it with this button. The test time will pause while the application is restarting.
SKIP INFO 	This button will allow you to skip the tutorial section.

The Inventor Certified User exam has the ability to mark a question for review. You can do this whether or not you select and answer or enter a value in the question. When you've successfully completed the questions that you recognized, you can have the exam software display what questions were marked and go back to them having preserved as much time as possible.

The exam tools can also display the number of questions and indicate whether an answer was given. If you forget to mark a question that you don't answer, this is a nice fall back so you don't miss out on what could be a correct answer.

## Pause if you must

If you need a short break, it is possible to pause the exam. Pausing the exam will preserve where you are in the process and might require the proctor's assistance to resume.

## In case of a crash

Inventor and the User Certification exam are computer programs and as such have some level of vulnerability to crashing. In the event the exam crashes, alert the proctor in the certification

center as quickly as possible. The proctor will be able to restore your exam session and it should be recovered up to the last question answered.

If the Inventor software should happen to fail, pause the exam and let the proctor know what has happened. They will be able to assist you in restarting the software. Then you can resume the exam with minimal loss of time.

## The results of the exam

AUTODESK Certified User	
EXAM SCORE REPORT	
<b>CANDIDATE</b> Thomas Jon Tremblay	<b>EXAM</b> Inventor Certified User Exam - Metric  Exam reference #: Date: ID:
<b>RESULTS</b>	100 200 300 400 500 600 700 800 900 1000
Required Score	
Your Score	
<b>SECTION ANALYSIS</b>	<b>FINAL SCORE</b>
User Interface	100%
Sketches	100%
Parts	100%
Assemblies	100%
Presentations	100%
Drawings	100%
Sheet Metal	100%
Visualization	100%
	Required Score
	Your Score 1000
	<b>OUTCOME</b>
	Pass <input checked="" type="checkbox"/>

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**CERTIPORT**

After completing the questions or when you reach the time limit you'll submit the exam for review. The review process is automated and only takes seconds. Once the score is calculated, you'll be given the result based on a scale of 1,000 being a perfect score.

You will also be able to review the details for each of the certification domains to see in a general sense how you performed on each part of the exam. If you pass the exam, this is good information to help you look at additional training or practice. If you don't pass the exam the first time, it is very valuable information to help you prepare for a retake.

If you want to review the results in the future, you can simply log into your account and select the exam to find the results information.

## Retaking the exam

If you need to retake the exam you can begin a second attempt after waiting 24 hours. You will need to repurchase the exam each time you attempt a retake.

If you require a second retake attempt, you'll need to wait 120 hours. These delays are built in for the purpose of encouraging you to study the areas where your knowledge needs

improvement. Any further attempts at a retake will have a five day waiting period between each attempt.

## Additional resources

Exams and practice exams through Certiport: [www.certiport.com/autodesk](http://www.certiport.com/autodesk)

Autodesk certification information: [www.autodesk.com/certification](http://www.autodesk.com/certification)

Instructor led training at Autodesk Authorized Training centers: [www.autodesk.com/atc](http://www.autodesk.com/atc)