

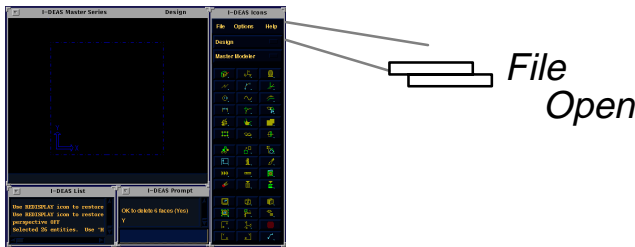
Quick Tips to Using I-DEAS

I-DEAS™ Tutorials: Fundamental Skills

Learn about:

- windows
- mouse buttons
- applications and tasks
- menus
- icons
- part modeling
- viewing
- selecting
- data management
- using the online tutorials

If you didn't start I-DEAS with a new (empty) model file, open a new one now by clicking on *File*, then *Open*.



I-DEAS Question

Save changes before switching model files?

☐ Yes

Open Model File form

Model File name: any unique name

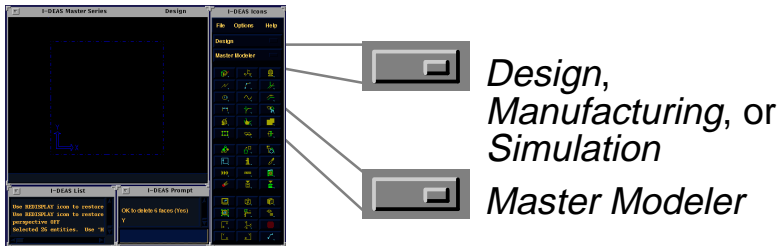
Things to notice

This symbol is used in the tutorials whenever you should select from the top menu (either *File*, *Options*, or *Help*).


This symbol is used whenever you should click a button on an I-DEAS form.

This symbol is used whenever you should fill in a field on an I-DEAS form.

Make sure you're in the following application and task:



Things to notice

 This symbol is used in the tutorials whenever you should select an item from a pull-down menu.

Save your model file.



Warning!

If, during this tutorial, you are prompted by I-DEAS to save your model file, respond:



Save only when the tutorial instructions tell you to—not when I-DEAS prompts for a save.

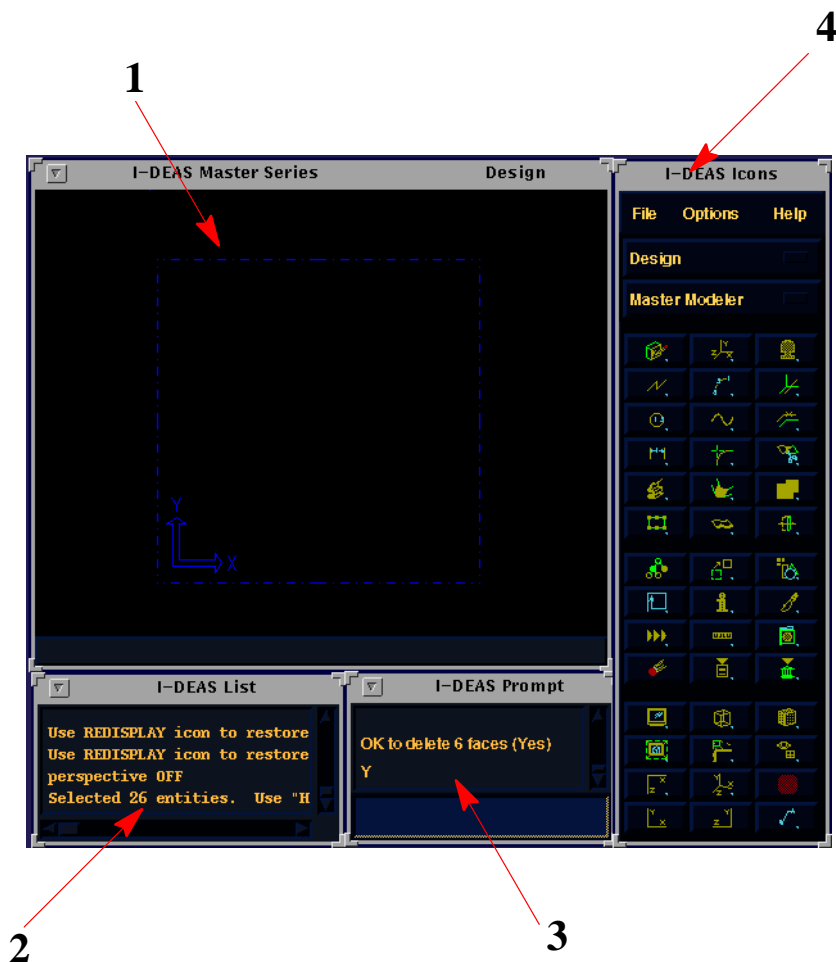
If you make a mistake at any time between saves and can't recover, you can reopen your model file to the last save and start over from that point.

Hint

To reopen your model file to the previous save, press Control-z.

I-DEAS creates four windows on your screen:

1. *Graphics* window
2. *I-DEAS List* window
3. *I-DEAS Prompt* window
4. *I-DEAS Icons* window



1. *Graphics* window

The *Graphics* window displays the workplane and your parts or assemblies.

2. *I-DEAS List* window

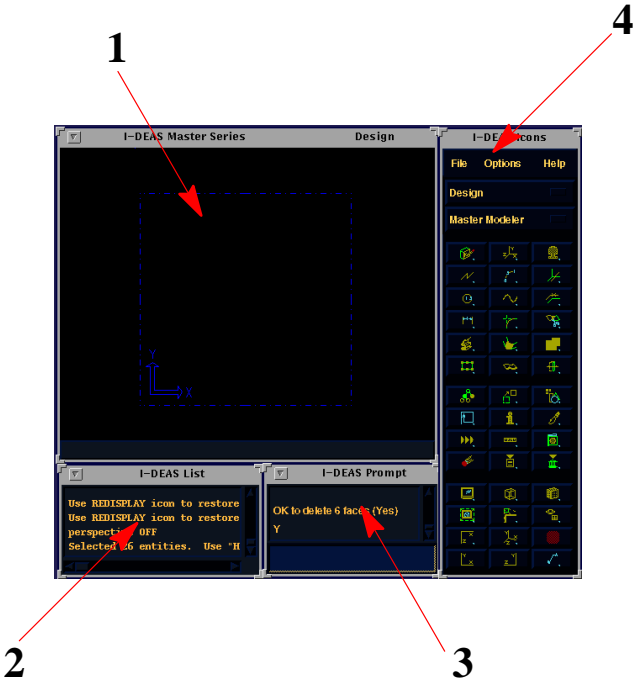
The *I-DEAS List* window displays output information generated by commands.

3. *I-DEAS Prompt* window

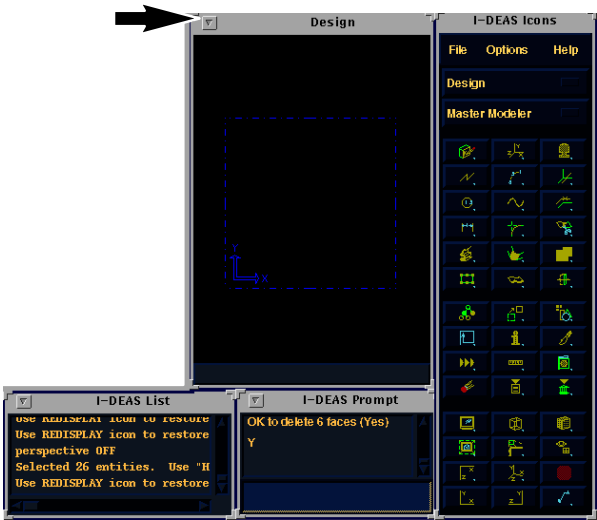
The *I-DEAS Prompt* window prompts you for information needed to complete a process, such as dimension values.

4. *I-DEAS Icons* window

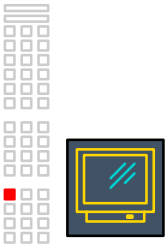
The *I-DEAS Icons* window contains the pull-down menus to change the application or task; it also shows the task, application, and I-DEAS-wide icons that control the software.



If you need to resize the *Graphics* window to make room for the online tutorial, click and hold the left mouse button on the upper left hand corner of the window, and then drag the left edge of the window to the right. (This will leave more room for the tutorial.)



Next, click on the *Redisplay* icon to refresh the *Graphics* window.



The three mouse buttons have a consistent use in each of the I-DEAS applications. The mouse buttons are used as follows:



left mouse button

The left mouse button is used for most operations, such as selecting menus and icons, while some operations use a “click and drag” or a “double-click” of the left mouse button.



middle mouse button

The middle mouse button is the same as the Enter or Return key, often used to accept the default answer to prompts, or to end the selection of entities and perform a command.






right mouse button

The right mouse button pops up a menu of other choices such as to modify the mode of picking graphics. When you use the right mouse button, you hold down the right button and slide the mouse pointer up or down to select the desired command. With the command selected, release the button. If you change your mind and don't want to make a choice, slide the mouse pointer to the side, off the pop-up menu.



The table on the next page summarizes the different mouse button operations.

Mouse Button Operations

Button	Operation	Uses
	click (quickly)	Select icons, menus, and form entries. Pick graphic items.
	shift-click	Pick multiple graphic items, or deselect items. Select a range of items in a form
	control-click	Select multiple items in a form.
	hold, drag	Pop up more icon choices. Pick items within a boxed area on the screen.
	double-click	Used in forms to “open” a listed item name that is followed by ...
	multiple clicks	“Walk” the part hierarchy, e.g., first click picks edge or face, second click picks the whole part, third click picks the feature. The selection is indicated by being highlighted: a yellow bounding box on features; a white bounding box around the part.
	click	Same as Return key. Use to pick default answer, or to end an operation.
	hold, drag	Select other pop-up “Menu” choice.

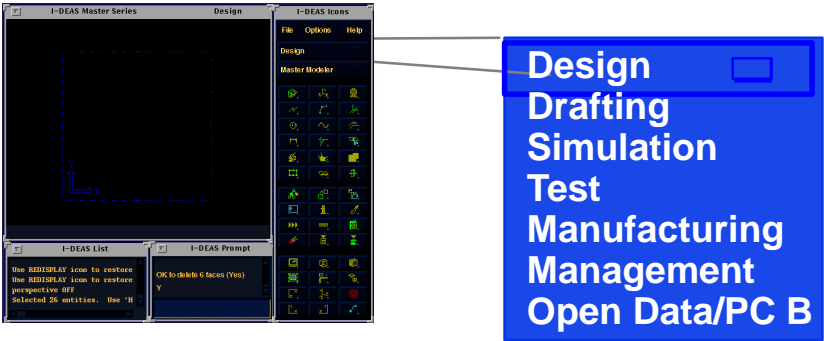
I-DEAS is divided into “applications,” which are further divided into “tasks,” a few of which are shown below.

Applications	Tasks
<i>Design</i>	<i>Master Modeler</i>
	<i>Master Assembly</i>
	<i>Mechanism Design</i>
	<i>Sheet Metal</i>
<i>Simulation</i>	<i>Master Modeler</i>
	<i>Boundary Conditions</i>
	<i>Meshing</i>
	<i>Model Solution</i>
	<i>Post Processing</i>
	<i>Optimization</i>
<i>Manufacturing</i>	<i>Master Modeler</i>
	<i>Generative Machining</i>
	<i>Assemble Setup</i>
<i>Test</i>	<i>Time History</i>
	<i>Histogram</i>
	<i>Model Preparation</i>
	<i>Signal Processing</i>
	<i>Modal</i>
	<i>Fatigue Life</i>
	<i>Post Processing</i>
<i>Drafting</i>	<i>Drafting Detailing</i>
	<i>Drafting Setup</i>




When you signed on to I-DEAS, you selected an application and a task on the Start form.

You can also change applications and tasks from the top of the icon panel when the software is running.

For example, click on the application menu and see the applications that are available.



Make sure you're still in the application you started in.

-  *Design*
—or—
-  *Simulation*
—or—
-  *Manufacturing*

Now click on the task menu and see the tasks that are available.



Make sure you're still in the *Master Modeler* task.



Master Modeler

Things to notice

These two menus let you know exactly where you are. That is, if you look at the menus now, you know what application you are in, and that you are in the *Master Modeler* task.



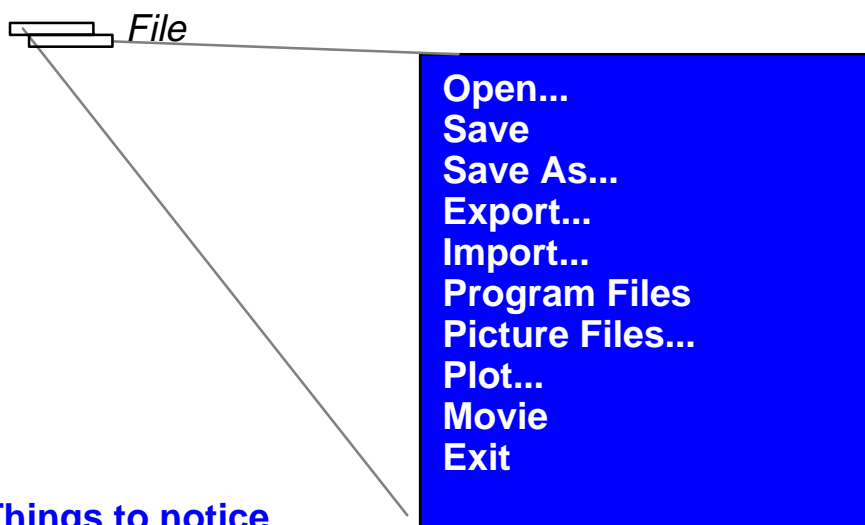
When you switch to another application and task, the icons on the icon panel change. You will learn more about these later in this tutorial.

In addition to the application and task menus (which you've already seen), the *I-DEAS Icons* window has three additional menus at the top.

File Options Help

File menu

Click on the *File* menu.




Things to notice

Some of these options may not be available on your platform. If an option is not available, it will be either grayed-out or not on the list.

Recovery Point



 If you did not enter a model file name on the Start form, the software will ask you to enter a name now.

Model File name: enter any name

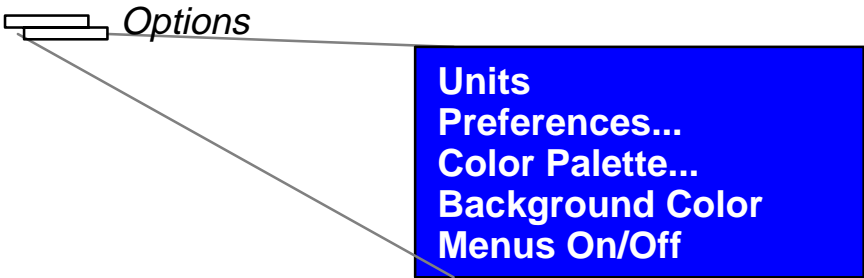


Check *I-DEAS List*.

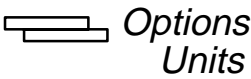
Look at the *I-DEAS List* window. A message will tell you that your model file has been saved.

Options menu

Now click on the *Options* menu.



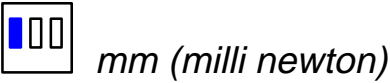
Click on *Units*.



Things to notice

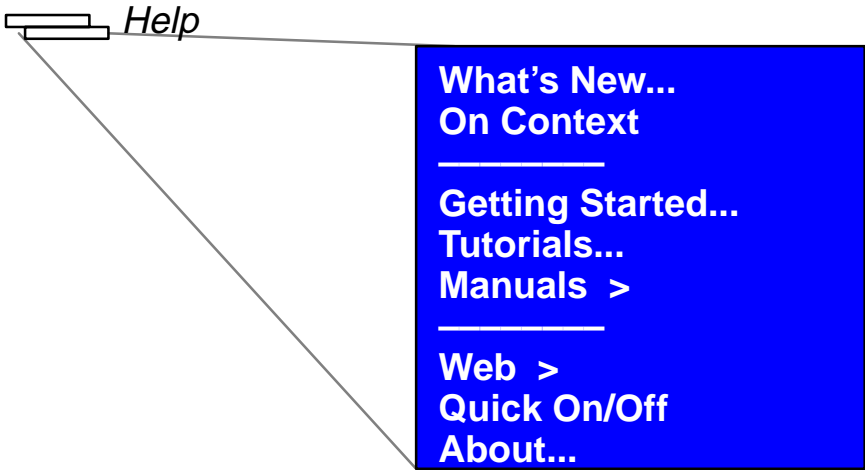
A menu of the different options for units is displayed.

For this tutorial, set the units to millimeters.



Help menu

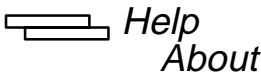
Click on the *Help* menu.



Things to notice

You can use the *Help* menu when you need help or want to get information about an icon, process, task, etc.

Click on *About...*



Help on Version form



Recovery Point

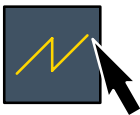


The icon panel in the *I-DEAS Icons* window is divided into three sections.

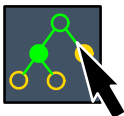


- top section = task icons
- middle section = application icons
- bottom section = display and view icons

Move the mouse over the icon panel and notice the Quick Help text at the bottom-left of the *Graphics* window.



Creates a series of lines that are connected end-to-end

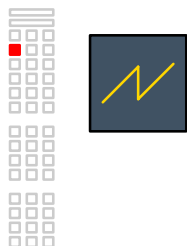


Displays history tree access form for a selected part



Redraws graphics window

You select icons by clicking them with the left mouse button. Click quickly on the *Polylines* icon with the left mouse button.



Things to notice

Notice that the *Polylines* icon is highlighted, which indicates that it has been selected and is active.

Since the *Polylines* icon is active, I-DEAS is expecting you to sketch something. You'll start sketching a little later in the tutorial. To deactivate the icon, press the middle mouse mouse while the cursor is in the *Graphics* window.

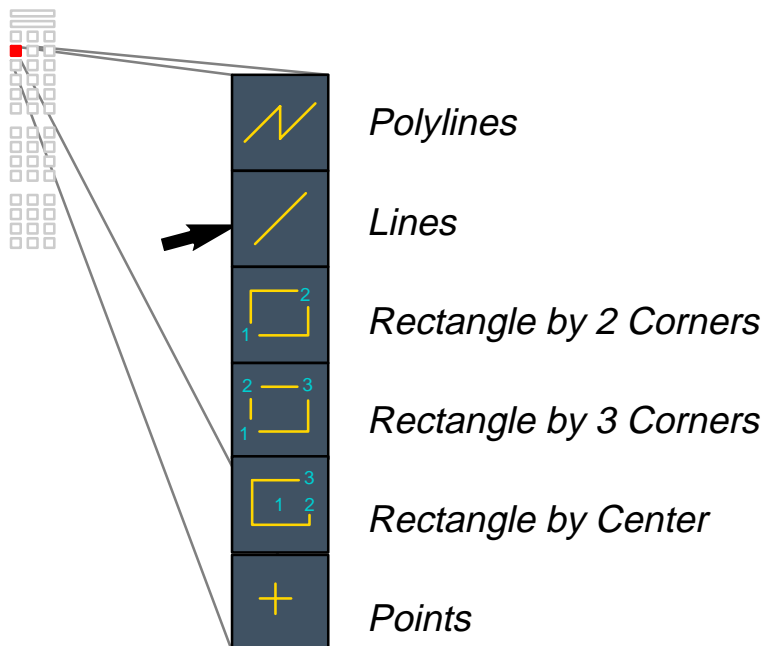


(to deactivate the command)

Most of the icons are organized into stacks of related icons. Click and hold on the *Polylines* icon. Notice how a stack of related icons is displayed.



To select one of the icons in the stack, move the mouse pointer up and down the stack until the border of the one you want highlights (looks beveled), then release the mouse button.



Practice by selecting the *Lines* icon from the stack. When you do, the *Lines* icon comes to the top of the stack, and is highlighted.

Things to notice

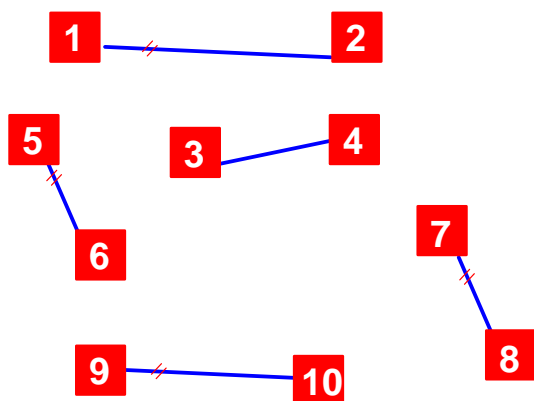
Notice that a prompt is given asking you to “Locate start.” Also, an odometer is shown in the upper corner of the *Graphics* window to show your XY locations. Move the mouse and watch the odometer change.

Draw a few lines, clicking once with the left mouse button for the start of the line, and once with the left mouse button for the end of the line. Don't worry if some of your lines have dimensions shown.



Check *I-DEAS Prompt*.

Get in the habit of watching the *I-DEAS Prompt* window for questions and instructions.



Terminate the *Lines* icon by pressing the middle mouse button.



(to deactivate icon)

Things to notice

1 This symbol is used throughout the tutorials whenever you should use the left mouse button to click on the corresponding position shown on the sketch or part.

Next, reopen your model file to the last save, so you'll have an empty workbench to sketch the next shape.

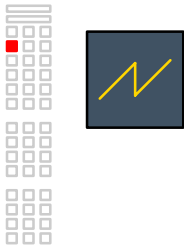
Hint



(to deactivate the command)

Control-z

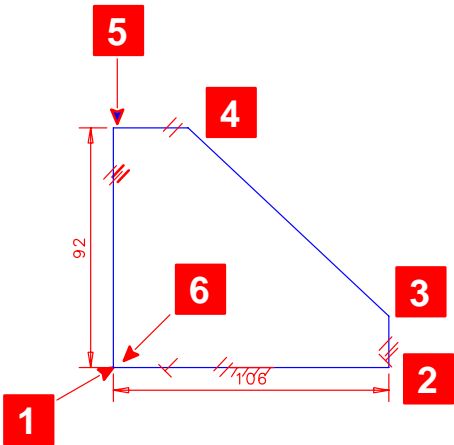
Click on the *Polylines* icon with the left mouse button.



Sketch the boundary as shown below, using the left mouse button to pick points 1 through 6. Don't worry about the dimensions.



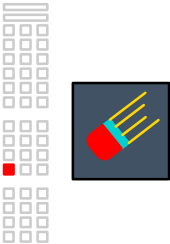
After picking point 6, terminate the command by pressing the middle mouse button.



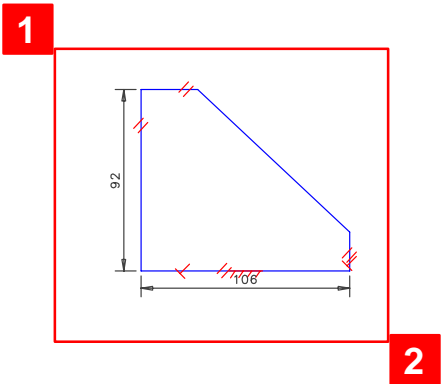
Things to notice

Notice that the *Polylines* icon is no longer highlighted. You ended the command when you pressed the middle mouse button.

To have nothing in the *Graphics* window for the next section, delete your sketch.



- 1 click and hold the left mouse button down while you drag a box to surround the sketch
- 2 release the left mouse button



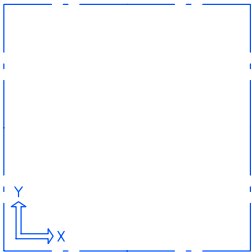
(to indicate Done)



Yes



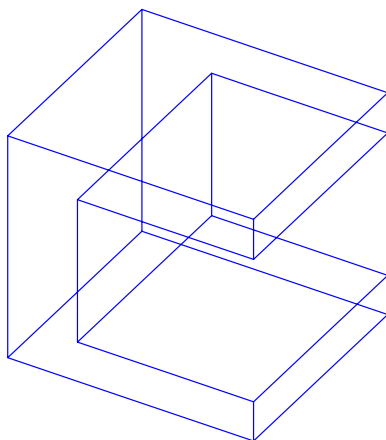
(to deactivate icon)



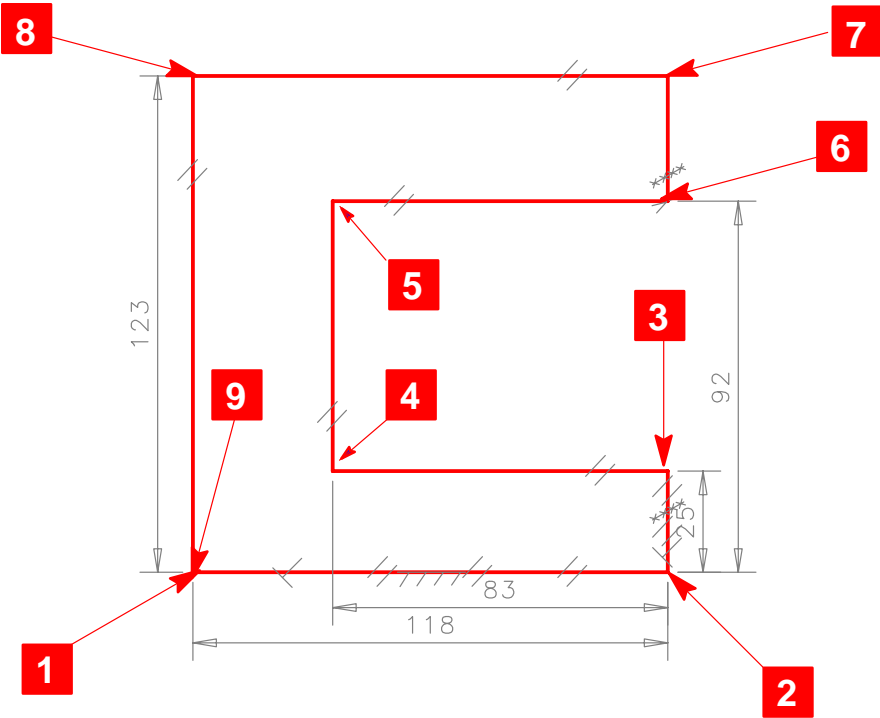
The part modeling process is a process of adding features. The typical process is:

1. Select a workplane or part face.
2. Sketch and constrain.
3. Create a feature (extrude, revolve, etc.).

In this section, you'll sketch a shape and add features to model a part like the one shown.



In a front view, use the *Polylines* icon to sketch a closed shape something like the one shown below. Don't worry about dimensions.

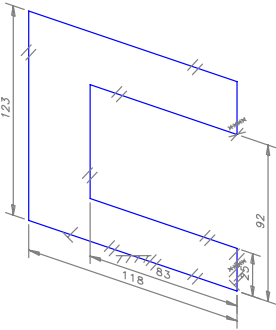
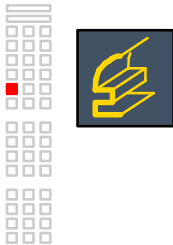
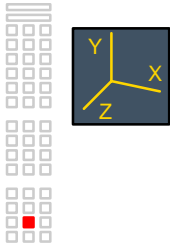


Remember

After picking point 9, terminate the command by pressing the middle mouse button.

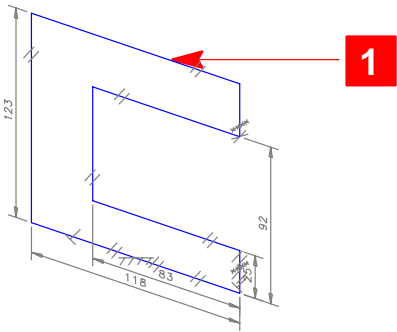


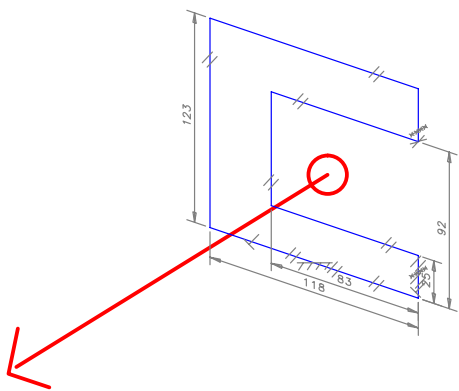
Select an isometric view. Use the *Extrude* command to extrude this shape into a solid part.



1 pick any line

 (to indicate Done)

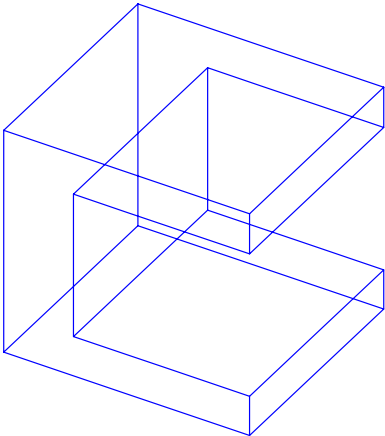




Extrude Section form

Distance: 100

OK



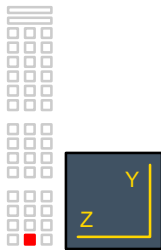
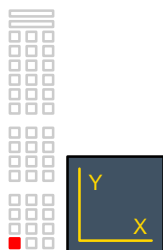
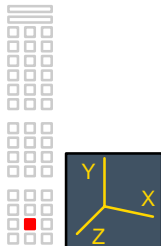
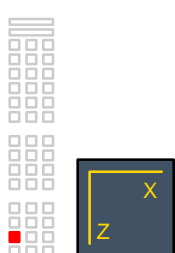
Recovery Point

File

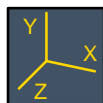
Save

The icons in the lower left corner of the icon panel change the viewing direction to front, top, right, and isometric view.

Try each of the icons to see how the view changes.



Switch to isometric view before continuing.



Try the following function keys to dynamically change the view.



Make sure you have “focus” by clicking in the I-DEAS *Graphics* window, or when you press F1, your Acrobat Reader Help will be displayed. If this happens, use *File, Close* in the *Help* window—not *File, Exit*.

F1 – pan

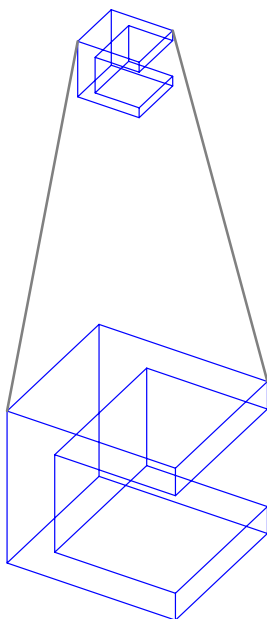
Hint

Start with the mouse pointer in the center of the *Graphics* window, hold down the F1 function key, and move the mouse to pan left and right, or up and down on the screen.

F2 – zoom

Hint

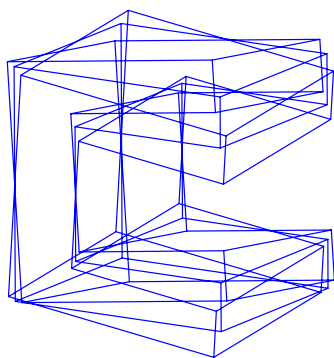
Start with the mouse pointer in the center of the *Graphics* window, hold down the F2 function key, and move the mouse down to zoom in, up to zoom out.



F3 – 2D and 3D rotation

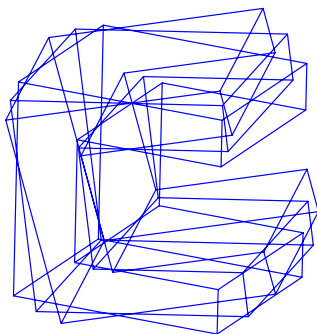
Hint

- 2D—start with the mouse pointer near a corner of the *Graphics* window, hold down the F3 function key, and rotate around the center of the screen.

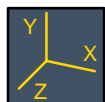


Hint

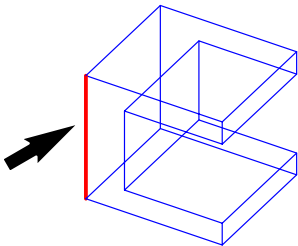
- 3D—start with the mouse pointer in the center of the *Graphics* window, hold down the F3 function key, and move the mouse up/down or left/right.



When you're finished, switch to isometric view and zoom all.



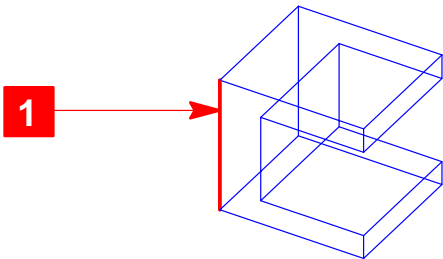
Move the mouse pointer over the part in the *Graphics* window.



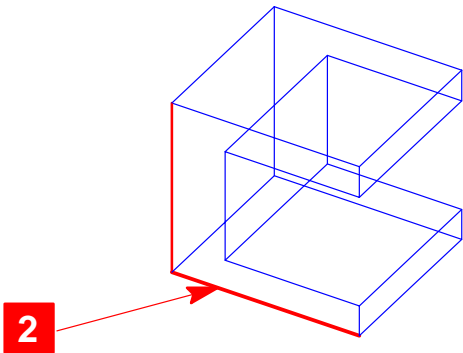
Things to notice

Notice how the lines are pre-highlighted even before you click to select.

1 click on one line using the left mouse button




2 hold down the Shift key and click on another line using the left mouse button



Things to notice

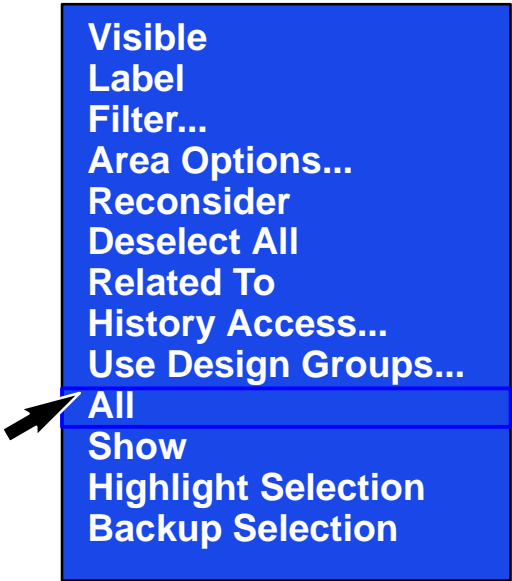
The first line remains selected.

 Leave these two entities selected and continue to the next page.



Click and hold the right mouse button. When you do, a menu appears.

While holding the right mouse button down, move the pointer up and down the pop-up menu and when *All* is selected, release the mouse button.



Things to notice

All entities of the same type that are selected (in this case lines) are highlighted.



If your lines aren't highlighted, look in the *I-DEAS List* window to see if it tells you to use the *Highlight_Selection* option. If it does, hold your right mouse button down and select the option from the menu.



Highlight Selection

Use the right mouse button menu to deselect all the lines.




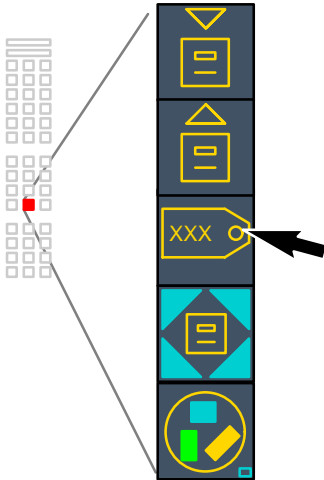
Deselect All

The parts you create will be organized into projects. There will typically be many projects in your data installation. Each project can contain multiple libraries and catalogs for shared data, and model files for personal scratch areas.

Model files are further subdivided into bins, which are storage containers used to help you organize and manage your parts.

Parts need to be named to be used by other applications. Give the part you just created the name "First Part."

 Pull down the icon stack and select the *Name Parts...* icon. Then release the mouse button.



pick anywhere on the part

Name form

Name: First Part




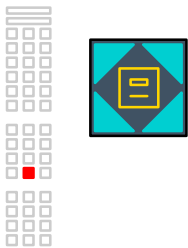
(to indicate Done)

Save your changes to your model file.



Select the *Manage Bins* icon to see what is in your model file.


 Pull down the icon stack to select the *Manage Bins* icon.



Manage form

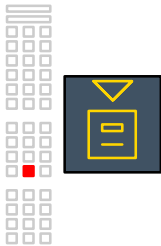
The Manage form shows you that your part is assigned to the default bin (the default bin is called the “Main” bin). Dismiss the Manage form.



 Bins and libraries are explained in detail in subsequent tutorials.

Although you just saw that the part was “assigned” to the main bin, it isn’t “in” the bin yet.

Put your part away to the bin.



pick anywhere on part



(to indicate Done)

Using the online tutorials

The online tutorial you take next depends on your area of interest. The tutorials are designed and organized to take you through a learning path to teach you the skills necessary to perform certain activities. The available paths are:

- *Design – Part Modeling*
- *Design – Surfacing*
- *Design – Assemblies*
- *Drafting*
- *Simulation*
- *Manufacturing*
- *Test*

Some of these paths have two levels of tutorials:



1 – Fundamental Skills



2 – Advanced Projects

Some tutorials are required before continuing to the next step, while others are optional, but highly recommended. As you progress through a path, each tutorial will tell you what is required, what is recommended, and where you should go next.

Tutorial wrap-up

You have completed the Quick Tips to Using I-DEAS tutorial.

See also...

For additional information on many of the concepts covered in this tutorial, see the following in the I-DEAS *Help* facility:

 *Help, Getting Started*

 *Help, Manuals, Table of Contents*

Interacting with I-DEAS

Getting Started with the Software

What's next?

To continue, exit the tutorial window by selecting:

 *File*
Exit

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