LEARNING OBJECTIVES

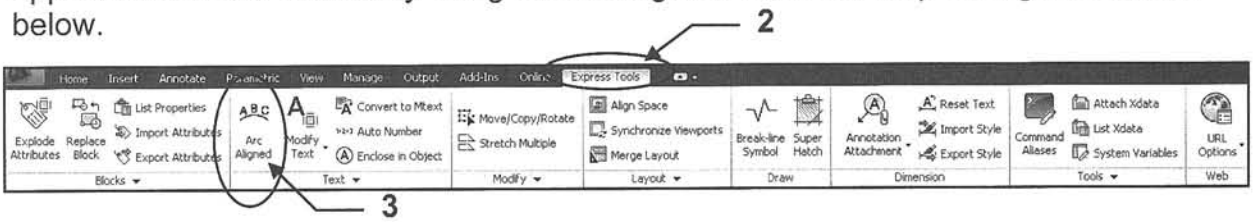
After completing this lesson, you will be able to:

1. Use 6 useful "Express Tools".
2. Additional Object selection options,
   CPolygon, WPolygon and Group
3. Autodesk ® Cloud

LESSON 30

TEXT - Arc Aligned

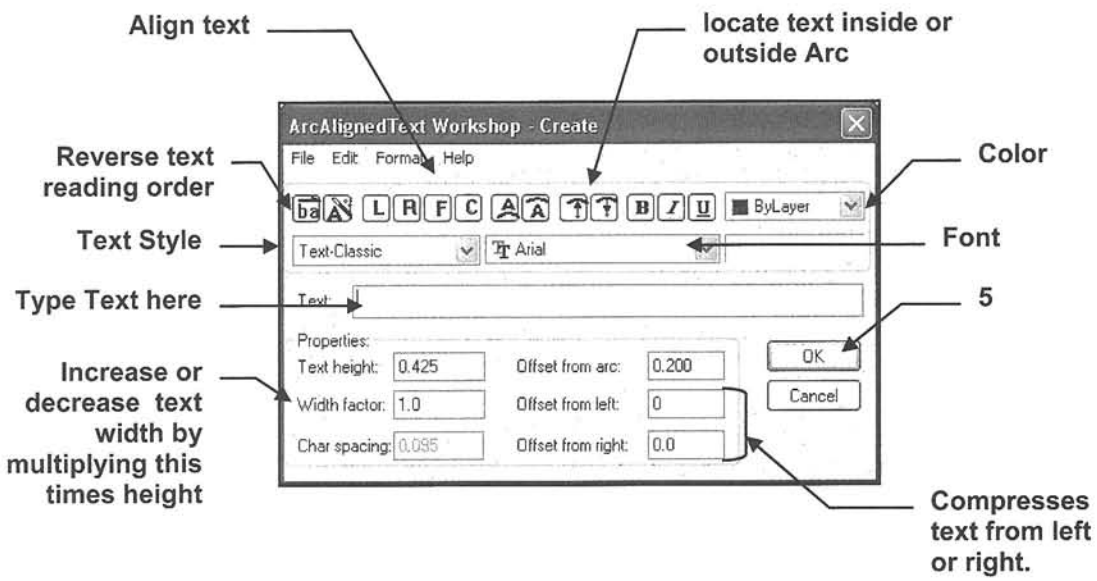
ARCTEXT allows you to place Text along the arc's curve. You may control the appearance of the text easily using the ArcAlignedText Workshop Dialog box shown below.



HOW TO CREATE ARCTEXT

1. Draw an Arc
2. Select **Express Tool** tab.
3. Select **Arc Aligned** tool.
4. Select the Arc.

The **ArcAlignedTextWorkshop-<u>Create</u>** dialog box will appear.



5. Select the options you desire and then select the **OK** button.

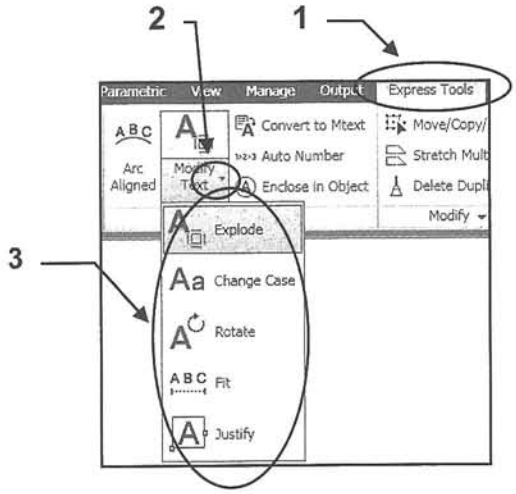
HOW TO EDIT THE ARCTEXT

1. Select the **ArcText** command.
2. Select the existing text.
   The **ArcAlignedTextWorkshop - <u>Modify</u>** dialog box will appear
3. Make changes and select the **OK** button.

TEXT - Modify Text

MODIFY TEXT has 5 options, **Explode, Change Case, Rotate, Fit** and **Justify,** to increase your manipulation of existing text.

1. Select the **Express Tools** tab.
2. Select the **Modify Text** ▼ down arrow.
3. Select one of the options listed below.
4. Select the text to be modified.
5. Select **<enter>** to stop.



EXPLODE

Text explodes into Lines and Arcs

CHANGE CASE

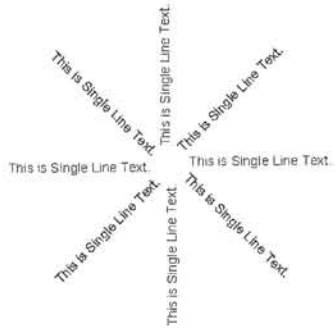
Changes text case to one of the following:

Sentence Case: The first letter of the sentence is upper case. All others lower case.
Lowercase: All letters lower case.
Uppercase: All letters upper case
Title: The first letter of each word uppercase.
Toggle Case: Changes upper to lower and vice versa

ROTATE

Allows you to rotate the existing text "most readable" or a specific angle.

Before Rotate



After Rotate

FIT

Allows you to compress or stretch text between two points.

I would like to fit this text inside the rectangle.

Before Fit

I would like to fit this text inside the rectangle

After Fit

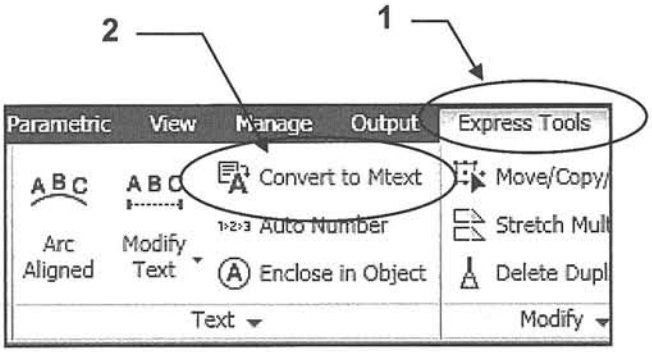
JUSTIFY

Allows you to change the justification but....you can do this with Properties also.

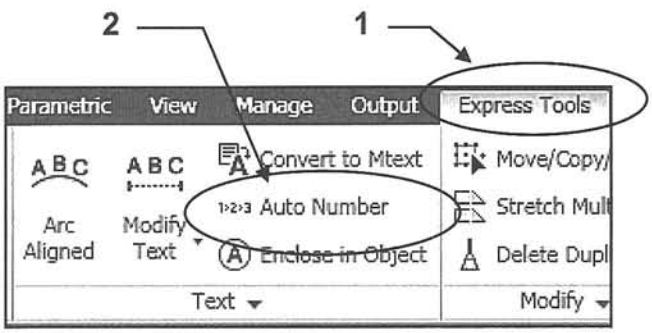
TEXT - Convert to MText and Auto Number

CONVERT TO MTEXT allows you to convert text created with Single Line text command to Multiline text. This is very helpful if you would like to modify the single line text because multiline text editor includes many additional editing options.

1. Select the **Express Tools** tab.
2. Select the **Convert to Mtext** tool.
3. Select the text to be converted.



AUTOMATIC TEXT NUMBERING allows you to add sequential numbers to existing text.

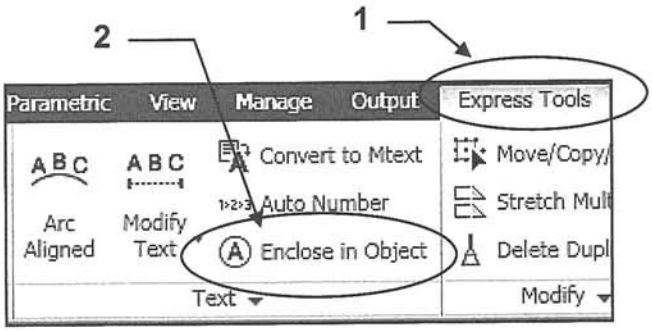


1. Select the **Express Tools** tab.
2. Select the **Auto Number** tool.
3. Select the text.
4. Sort selected objects by [X/Y/Select-order] <Select-order>: **<enter>**
5. Specify starting number and increment (Start,increment) <1,1>: **<enter>**
6. Placement of numbers in text [Overwrite/Prefix/Suffix/Find&replace..] < Prefix>:**<enter>**

This is line 1.	1 This is line 1.
This is line 2.	2 This is line 2.
This is line 3	3 This is line 3
Before Auto Number	**After Auto Number**

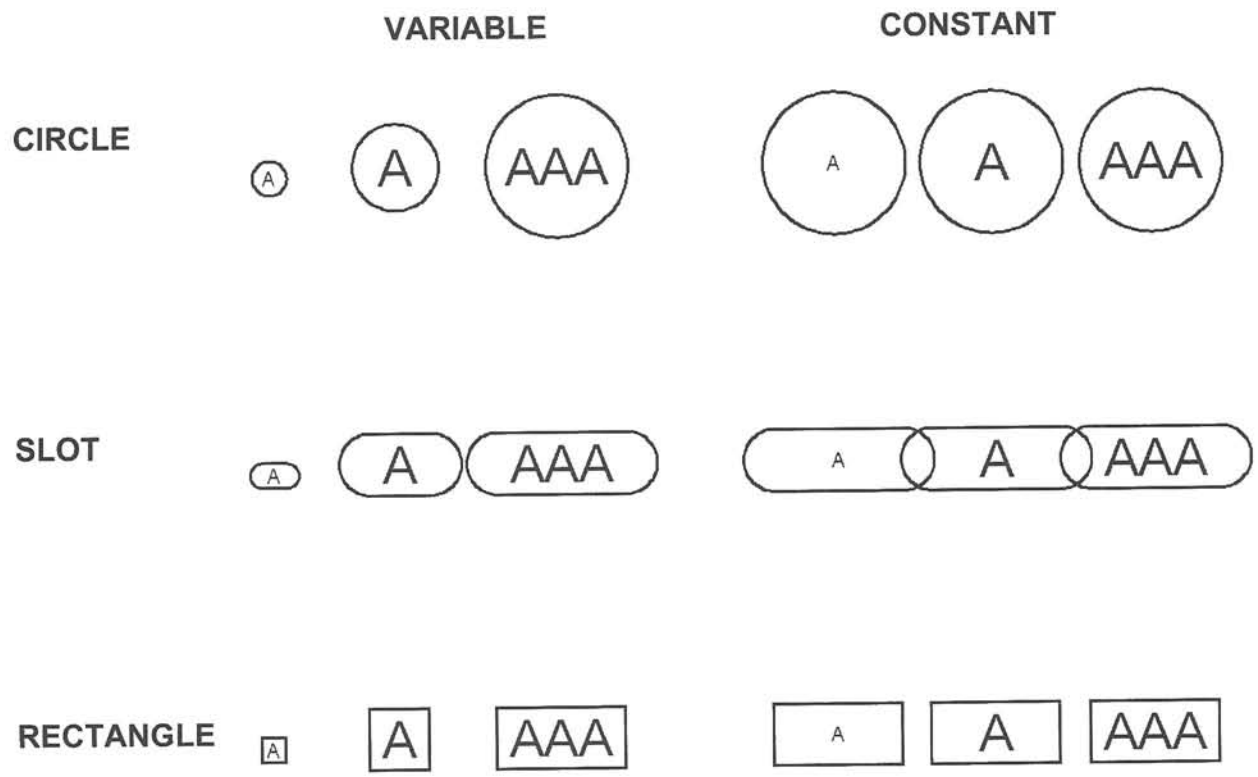
TEXT - Enclose in Object

ENCLOSE IN OBJECT allows you to place a Circle, Slot or Rectangle around text.



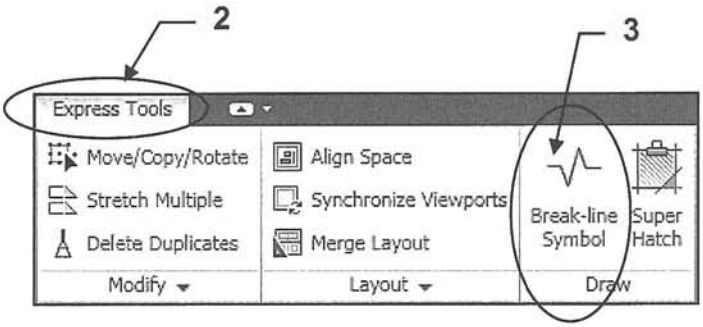
1. Select the **Express Tools** tab.
2. Select the **Enclose in Object** tool.
3. Select the Text.
4. Enter distance offset factor <.350>: ***this determines the offset from the text. It multiplies this number times the text height.***
5. Enclose text with [Circles/Slots/Rectangles] <Circles>: ***select the enclosure***
6. Create circles of constant or variable size [Constant/Variable] <Variable>: ***if you select Constant, AutoCAD will select the largest text height and multiple it times the offset distance to determine the size for all. If you select Variable, each offset distance will be calculated based on the individual text height.***

EXAMPLES:



DRAW - Break-Line Symbol

BREAKLINE
Creates a polyline and inserts the break-line symbol.



How to create a Break-Line Symbol

1. Draw 2 Lines as shown below.

2. Select the **Express Tools** tab.

3. Select the **Break-Line** tool.

   Command: breakline
   Block= BRKLINE.DWG, Size= .500, Extension= .180

4. Specify first point for breakline or [Block/Size/Extension]: ***snap to 1st endpoint***

5. Specify second point for breakline: ***snap to 2nd endpoint***

6. Specify location for break symbol <Midpoint>: ***<enter>***

Options:

Block: You may select another block to be used instead of the Break-line symbol.

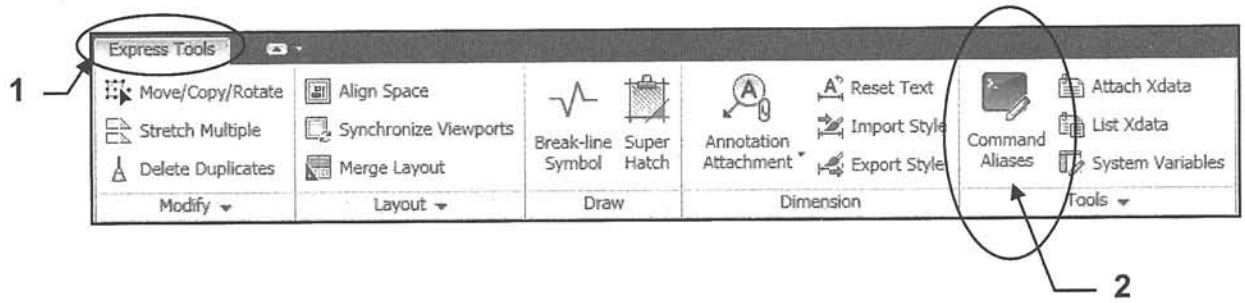
Size: You may designate the size of the Break-line symbol.

Extension: You may designate the amount the Break-line overlaps the existing line.

TOOLS - Command Aliases

COMMAND ALIASES

AutoCAD has many preset aliases for common commands. For example: **C** for **Circle**. These aliases are stored in the **acad.pgp** file. Using the **Command Aliases** tool you may **Add, Remove** or **Edit** an Alias.

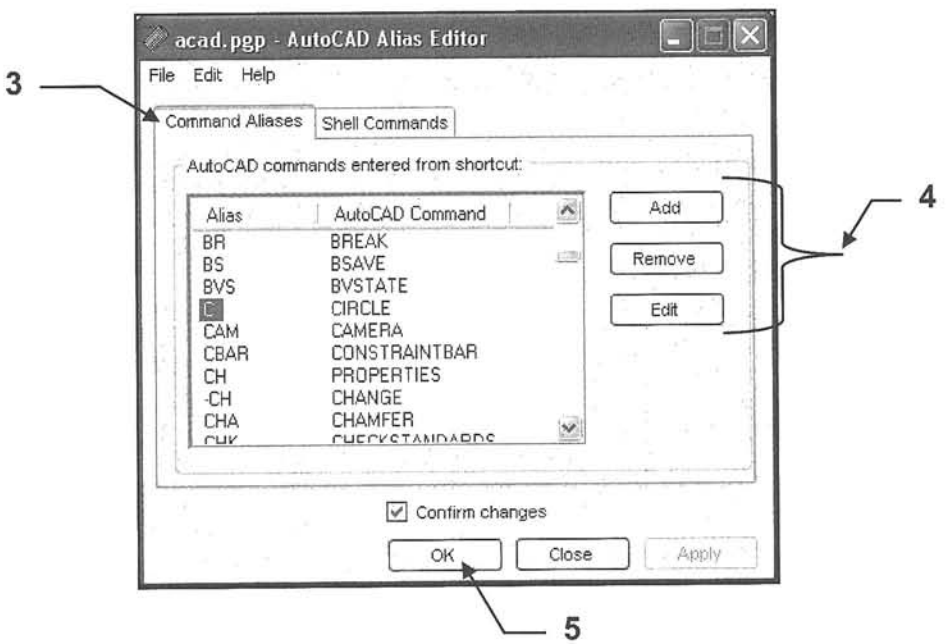


How to use the Command Aliases tool.

1. Select the **Express Tools** tab.

2. Select the **Command Aliases** tool.

*The **acad.pgp - AutoCAD Alias Editor** appears.*



3. Select the **Command Aliases** tab.

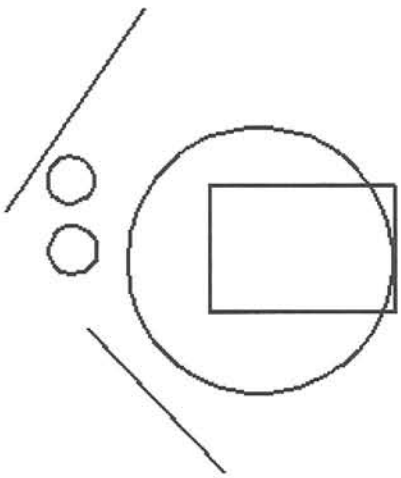
4. Select the **Add, Remove** or **Edit** button.
   Add: You will specify an **Alias** and select the corresponding command. Then **OK**
   Remove: Click on the Alias and select the **Remove** button.
   Edit: Enter the new Alias to replace the existing Alias. Then **OK**

5. Select **OK** button.

OBJECT SELECTION WINDOWING

In Lesson 2 you learned how to select objects using a Window. The Rectangular shaped Window is the default. Now you will learn how to create a polygonal shape to select objects.

1. Draw the following objects approximately as shown.

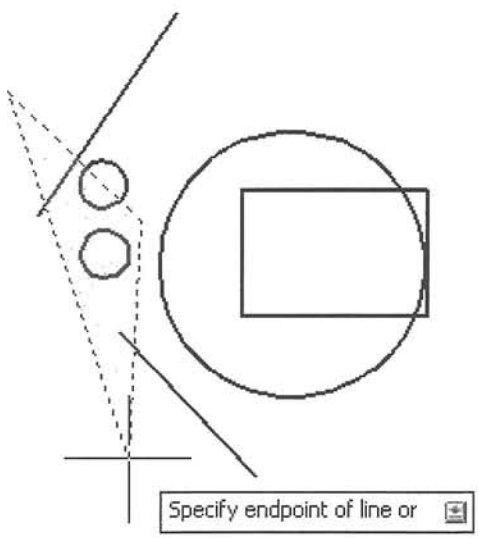


2. Select a command such as **Erase**

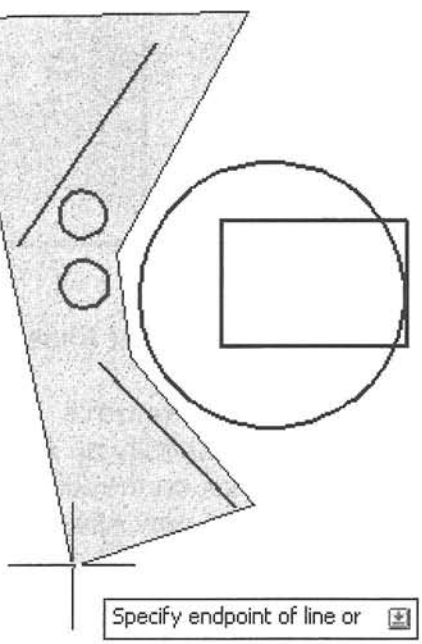
3. When prompted to Select objects: ***type either CP or WP <enter>***

   This allows you to select objects using a Crossing or Window Polygonal shape.

CP (Crossing Polygon):
Any object crossed will be selected.



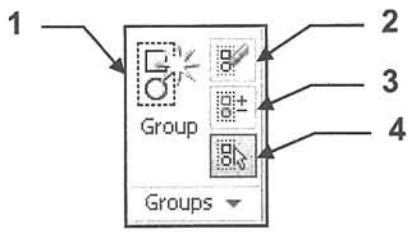
WP (Window Polygon):
Any object completely enclosed will be selected.



CREATING A GROUP

The Group tools allow you to group a set of objects and give them a name.
Select **Home tab / Groups panel**

You may:
1. Create a group
2. Ungroup
3. Edit: Add or remove objects from the group
4. On or Off: Temporarily turn the Group On or Off.



How to create a Group
1. Select the Create Group tool (1)
2.. Select the objects to Group.
3. You may give the group a name now or use the Group Manager. (See next page)

How to Ungroup
1. Select the Ungroup tool (2)
2. Select the Group to Ungroup

How to Add or Remove an object from the group.
1. Select the Edit tool (3)
2. Select the Group to edit
3. Select Add or Remove
4. Select the object(s) to Add or Remove. <enter>

How to turn a Group On or Off.
1. Select the On or Off tool (4)
2. Select the Group to turn off or on.

Note:
You may temporarily turn off a group, make a move an object within the group and then turn the group On. The moved object will remain in group but now in a different position.

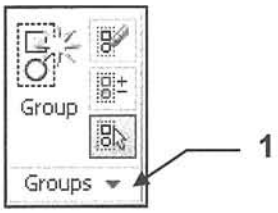
Purge a Group
A Group, no longer needed, can be **purged**. (Refer to 29-9)

Continued on the next page...

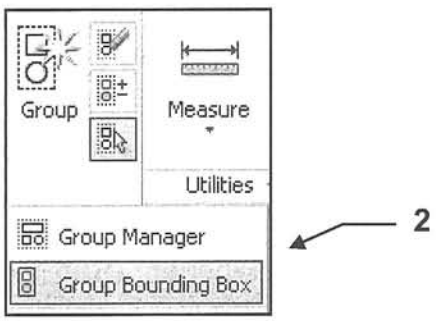
CREATING A GROUP....continued

Managing the Group

1. Select the Groups ▼



2. Select **Group Manager** or **Group Bounding Box**



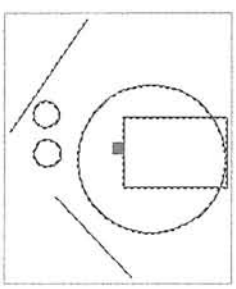
Group Manager

The Group Manager allows you to Identify, Create and Change a group.

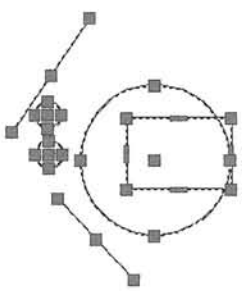
Group Bounding Box

When you select a previously created group AutoCAD identifies it using Grips or a Bounding Box. The default is Grips. If you want a Bounding Box select this option.

Bounding Box ON



Bounding Box OFF



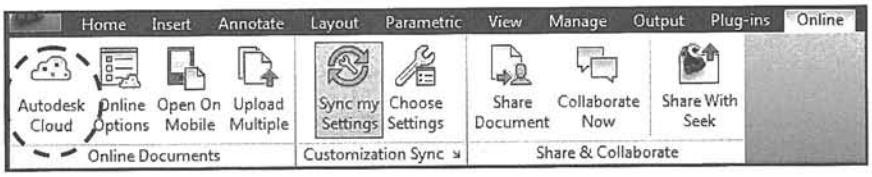
AUTODESK CLOUD CONNECTIVITY

Autodesk® Cloud is a collection of web-based features, products, and services.

Over the next few pages the Autodesk Cloud "documents" will be discussed. Use this service to store your design documents in the cloud, so you can access them anytime, anywhere and easily share them with colleagues, clients and other users. Viewing capabilities enable users to open and review 2D and 3D DWF files through a web browser, without the design software used to create the files. 1 GB of storage space is available for free. Autodesk subscription customers receive 3 GB of storage space for each seat of software on Subscription for the duration of their Subscription contract term.

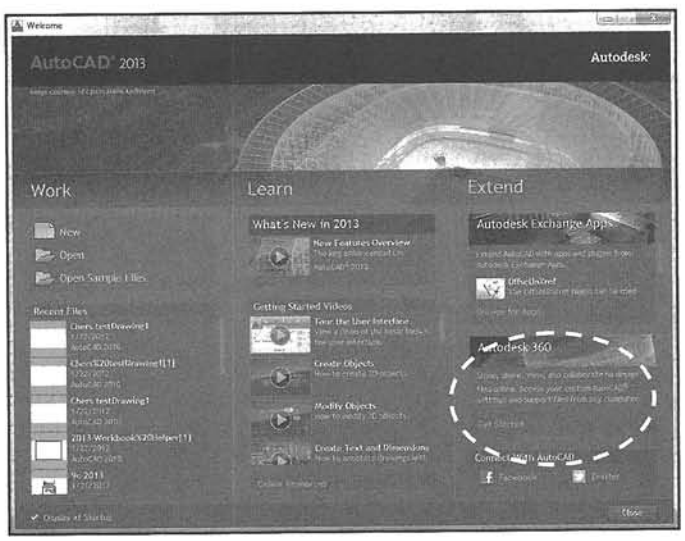
In AutoCAD 2013 you can connect directly to the Autodesk Cloud for online file sharing, customized file syncing and more. You can sign into the Autodesk Cloud from the InfoCenter toolbar using your Autodesk single sign-on account. If you do not yet have an account, you can create one.

After signing in, your user name is displayed and additional tools are displayed in the drop-down menu including the option to sync your settings with the cloud, specify online options, access Autodesk Cloud documents, sign out, and managed account settings.

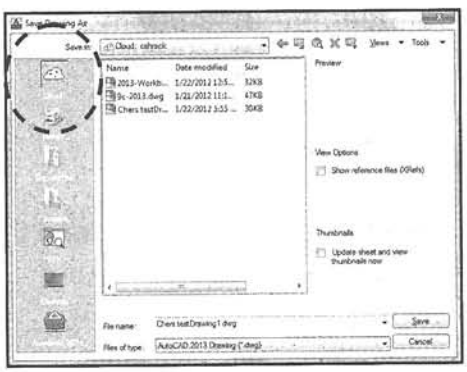


You may access the
Online tab/
Online Document panel/
Autodesk Cloud

Autodesk Cloud many ways. Here are a few examples.



Welcome screen
AutoCAD 360
Get Started

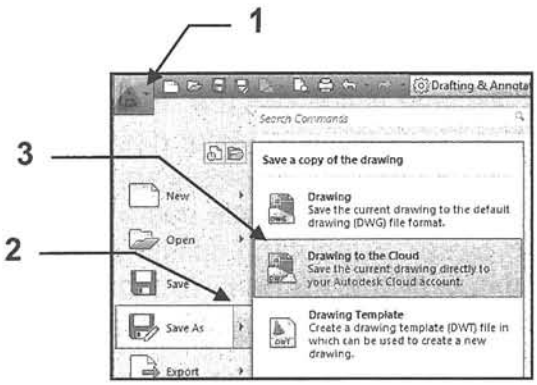


Save As or Open dialog boxes

Continued on the next page...

How to save a file to Autodesk Cloud

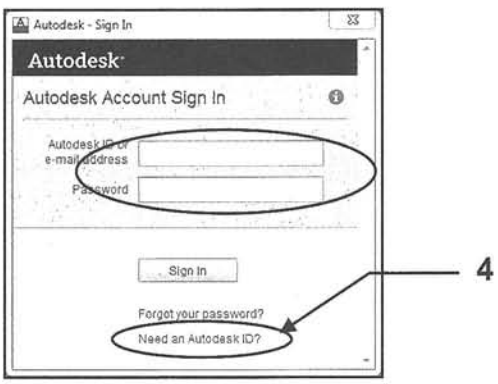
1. Select the **Application Menu**
2. Select **Save As ▶**
3. Select **Drawing to the Cloud**



The **Account Sign In** box should appear.

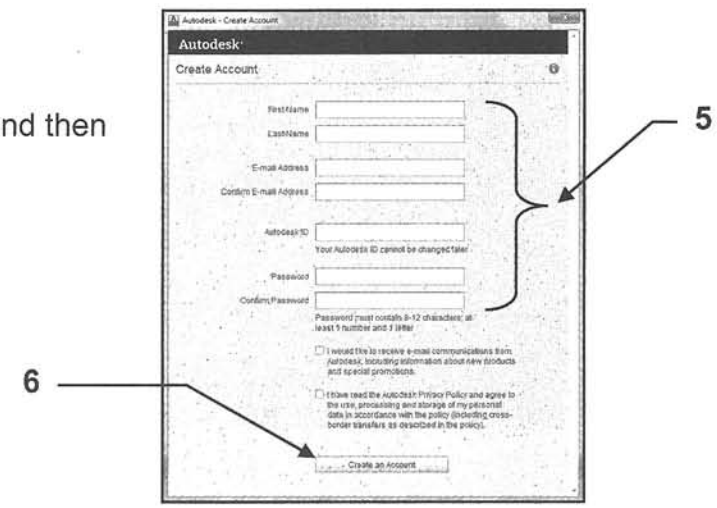
4. If you have not previously created an account select **Need an Autodesk ID?**

If you already created an account skip to 8.



The **Create Account** box should appear.

5. Fill in the boxes
6. Select **Create Account** and then sign in.

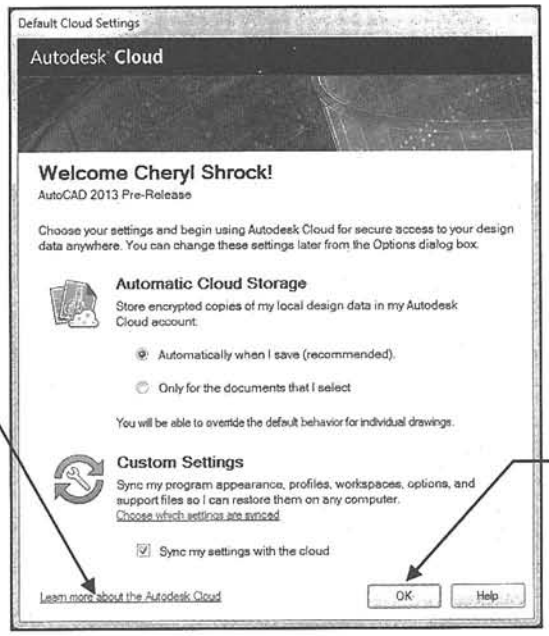


Continued on the next page...

How to save a file to Autodesk Cloud....continued

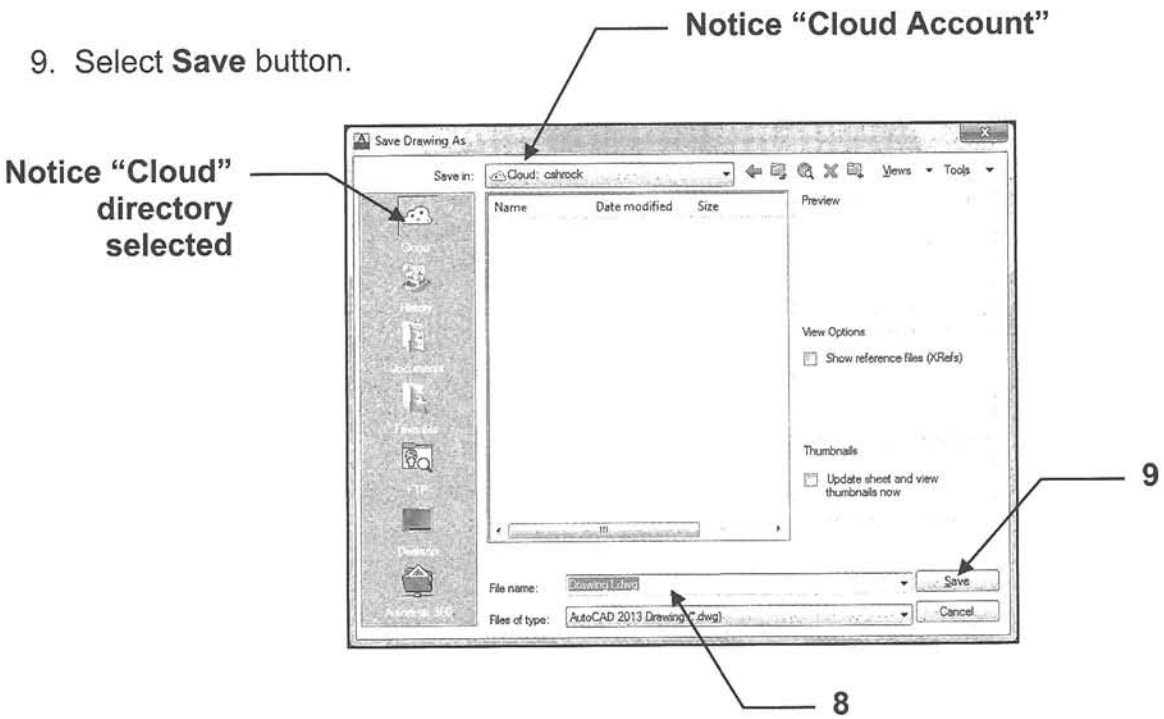
The first time you access the Autodesk Cloud, you have the opportunity to specify default Cloud settings. You may modify these selection later using the **Online ribbon tab.**

7. Make your selections then select **OK.**



8. Enter the file name

9. Select **Save** button.

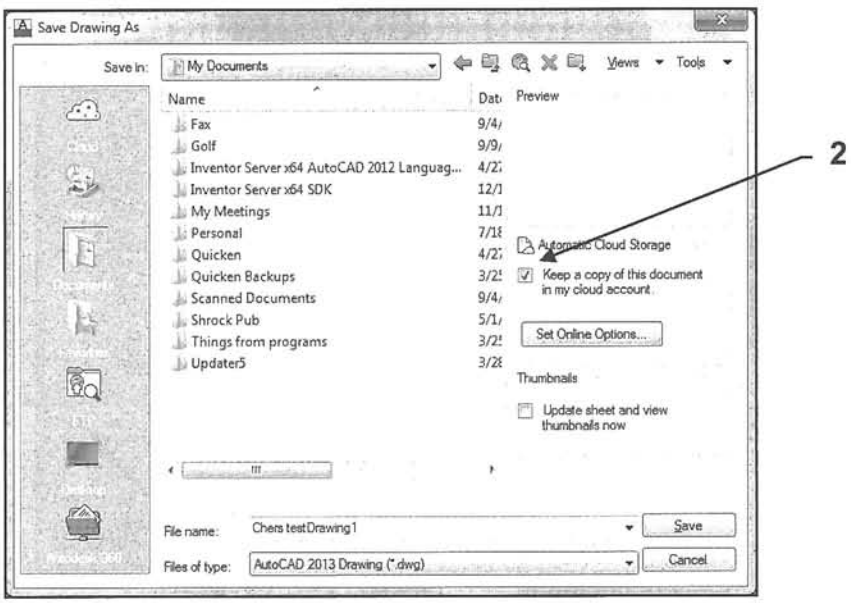


How to save a file to Autodesk Cloud automatically

You may set AutoCAD to automatically save the file to the Autodesk Cloud every time you save a file.

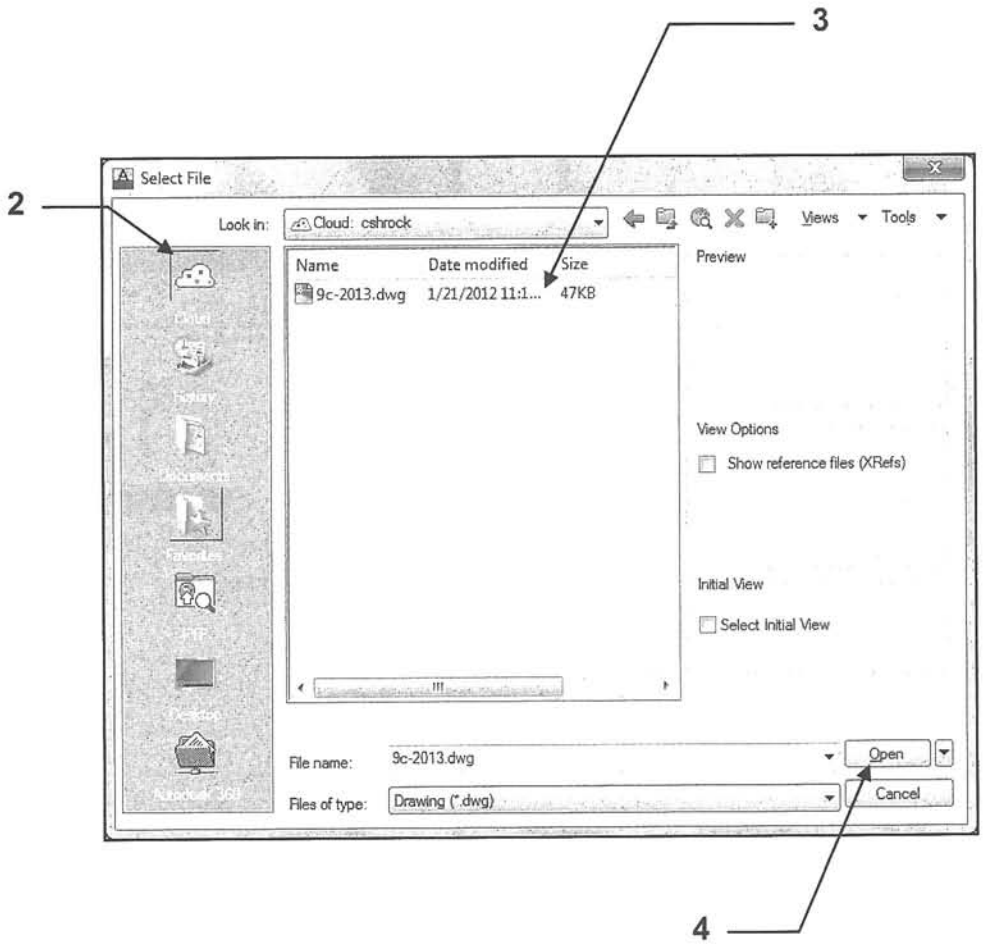
1. Select **Save As**

2. Check the box: **Keep a copy of the document in my cloud account**



How to Open a file from Autodesk Cloud

1. Select **Open**
2. Select the **Cloud** directory
3. Select the **file** to open.
4. Select the **Open** button.



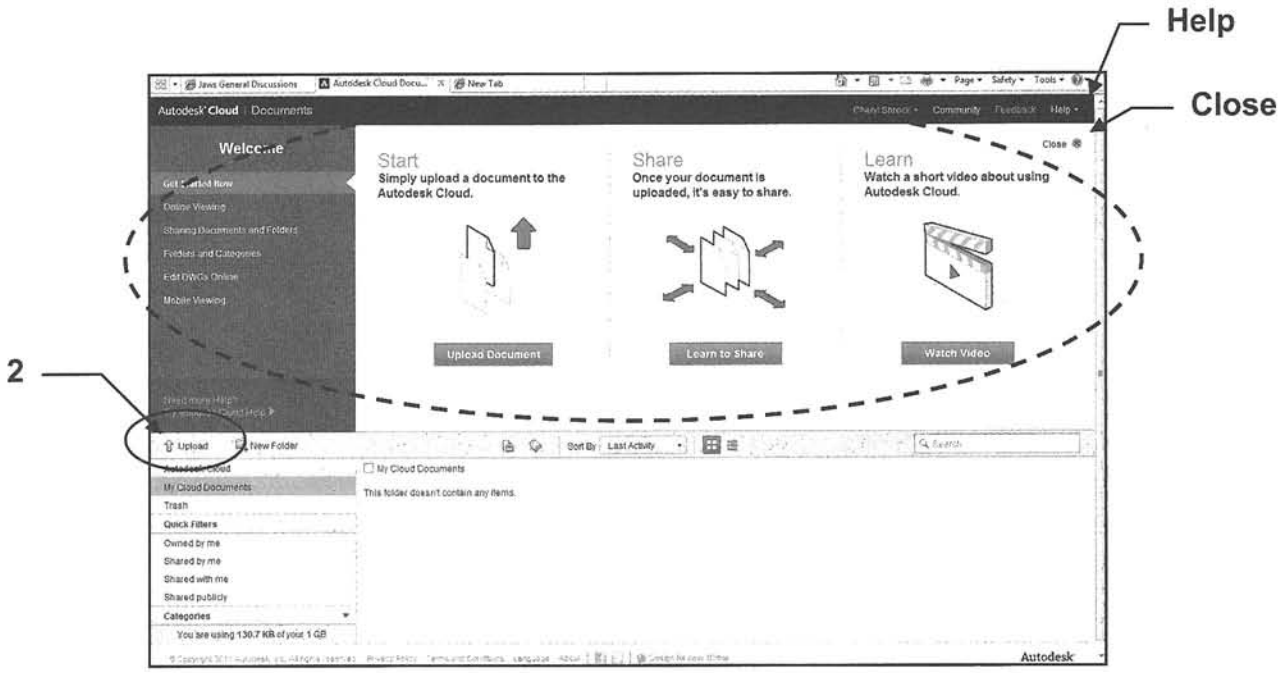
How to Upload a document to Autodesk Cloud

You may **upload** your files to the Autodesk Cloud to share with others.

1. Select the **Online tab / Online documents panel / Autodesk Cloud**

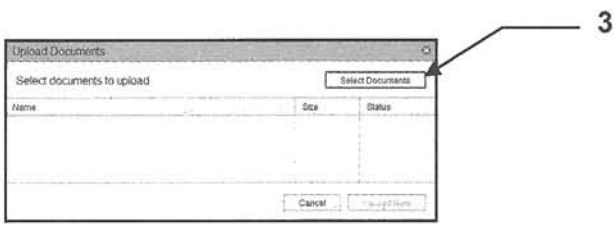
   The Welcome area allows you to browse some of the options and view a video. This area can be temporarily closed by selecting the Close button in the upper right corner.

   To re-open the Welcome area select the Help ▼ and select **Getting Started.**



2. Select **Upload**

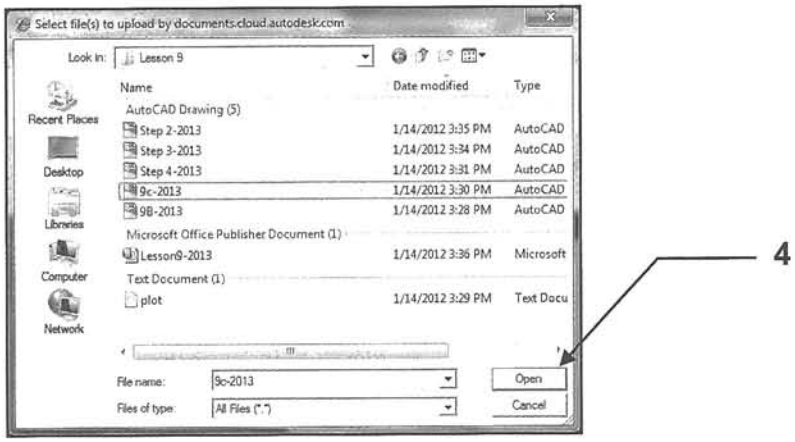
3. Select **Select Documents**



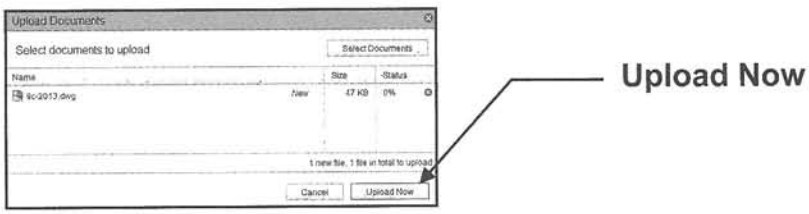
Continued on the next page...

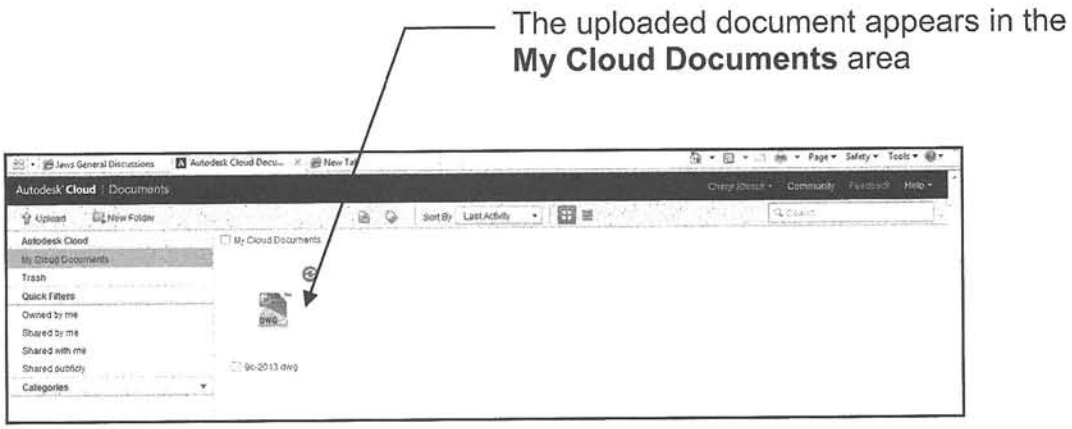
How to Upload to Autodesk Cloud....continued

4. Locate the file to upload and select **open**



5. Select **Upload Now**





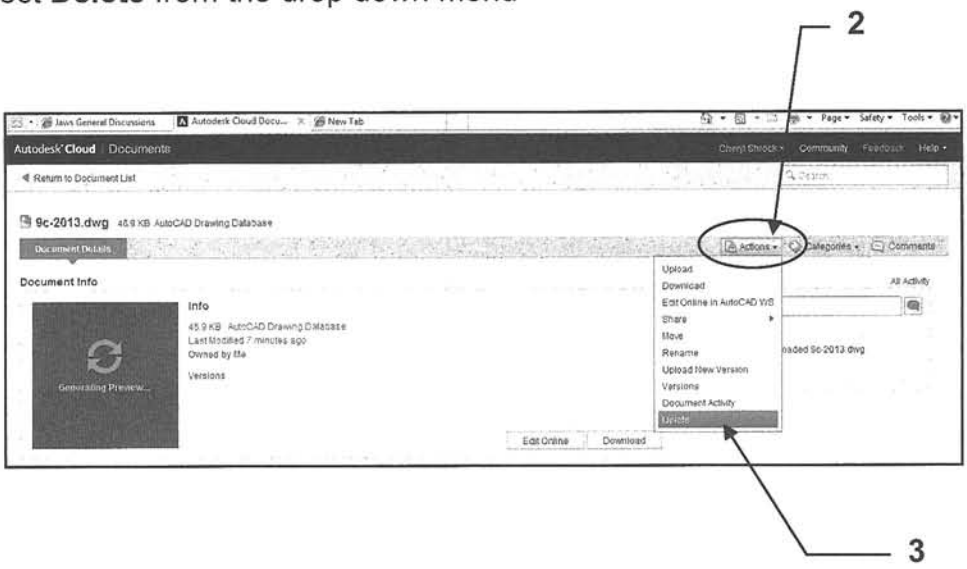
How to Delete an Uploaded document

How to Delete an uploaded file from My Cloud Document

1. Select the document

2. Select **Actions ▼**

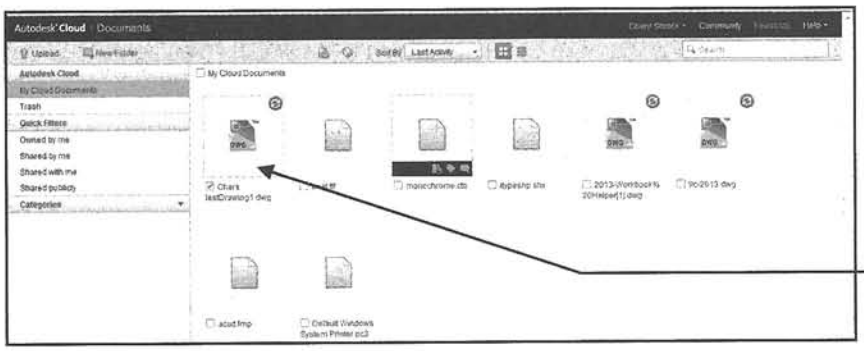
3. Select **Delete** from the drop down menu



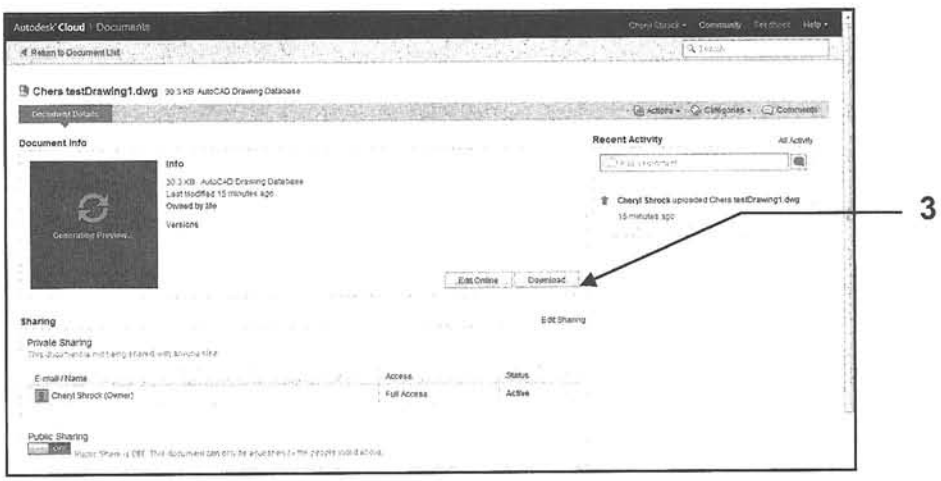
How to Download from Autodesk Cloud

1. Select the **Online tab / Online documents panel / Autodesk Cloud**

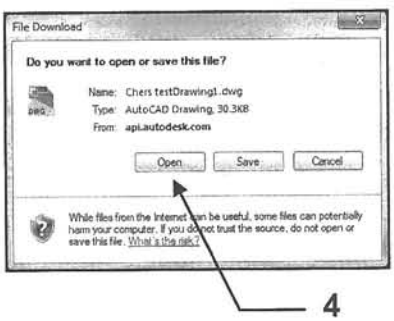
2. Select the document to download



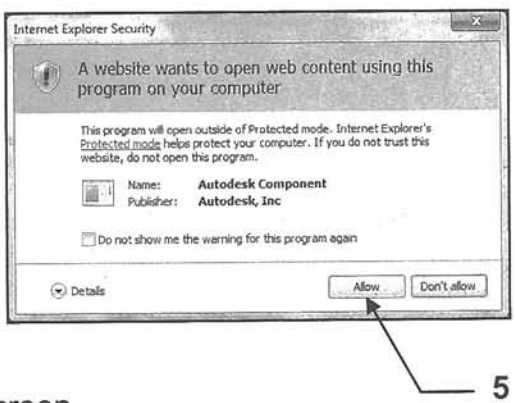
3. Select the **Download** button.



4. Select **Open**



5. If asked select **Allow**



The document should have opened on to the screen.

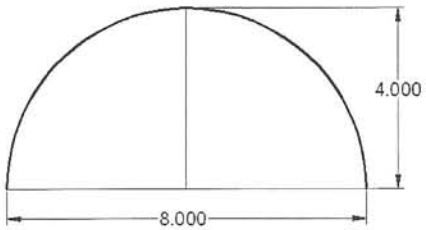
You may view, edit, print, save etc.

You may place documents in the Autodesk Cloud for others to download.

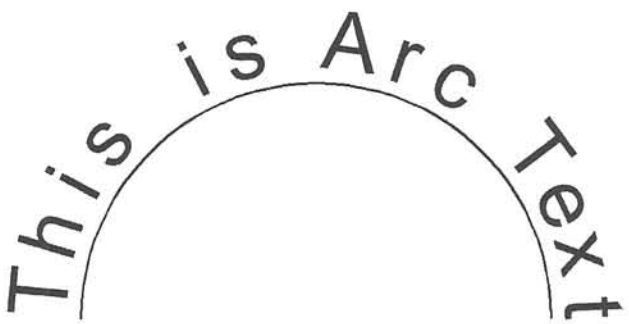
EXERCISE 30A

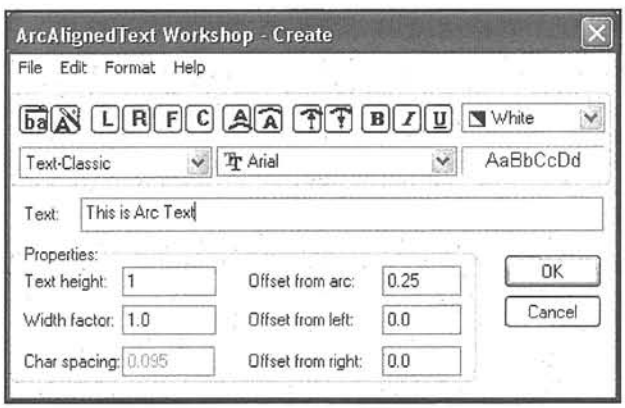
INSTRUCTIONS:

1. Start a **NEW** file using **My Decimal Setup.dwt.**
2. **Draw** the **Arc** shown below using "**Center, Start, End**"



3. Create the **Arctext** shown below.



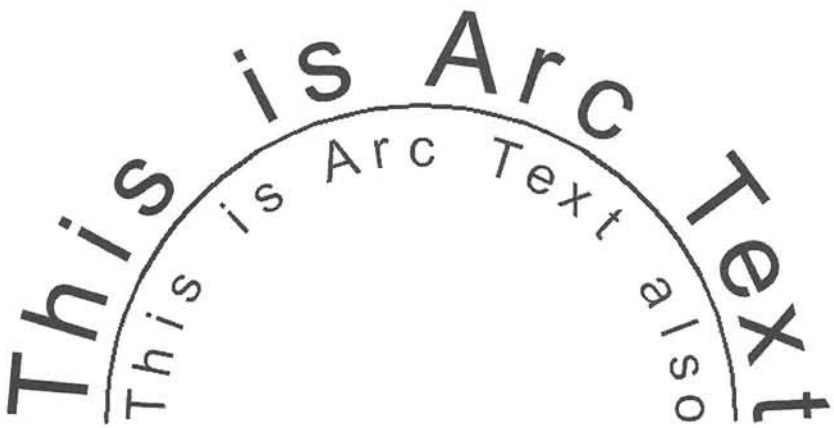


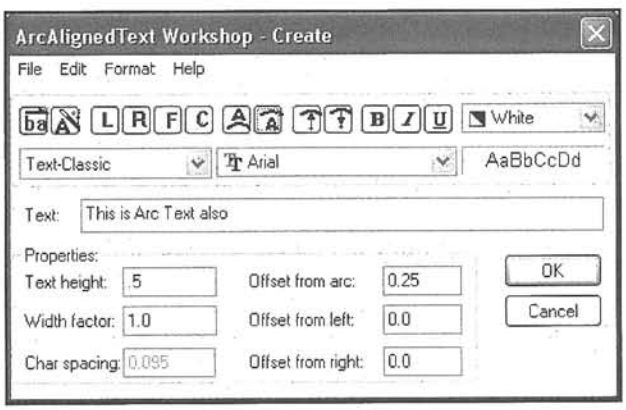
4. **Save** the drawing as: **EX30A**

EXERCISE 30B

INSTRUCTIONS:

1. Open **EX30A** (if not already open).
2. Add the text on the inside of the Arc as shown below.



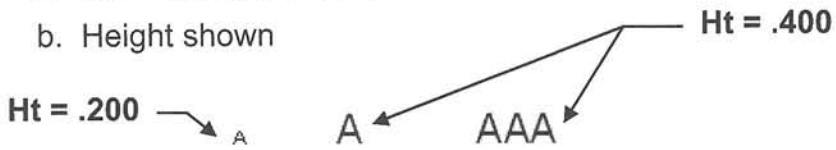


3. **Save** the drawing as: **EX30B**

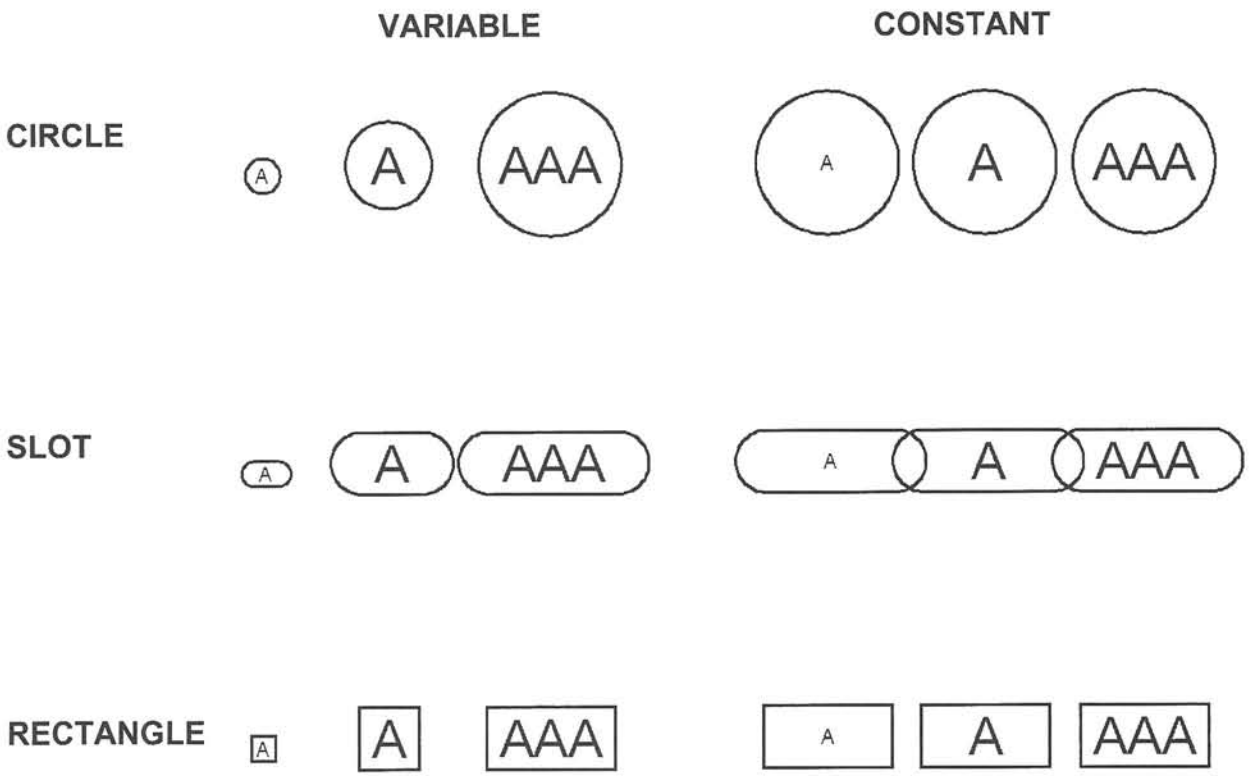
EXERCISE 30C

INSTRUCTIONS:

1. Start a **New** file using **My Decimal Setup.dwt**
2. Draw the letters as shown below.
   a. Use text style **Text-Classic**
   b. Height shown



3. Copy the letters 3 times as shown below.
4. **Enclose the letters** as shown below.

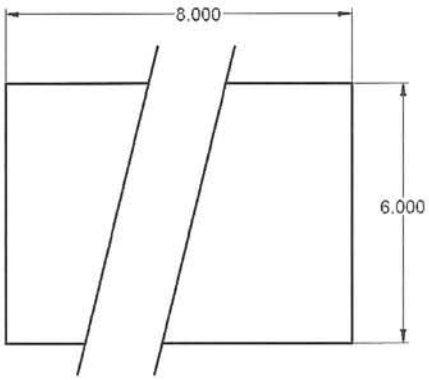


5. **Save** the drawing as: **EX30C**

EXERCISE 30D

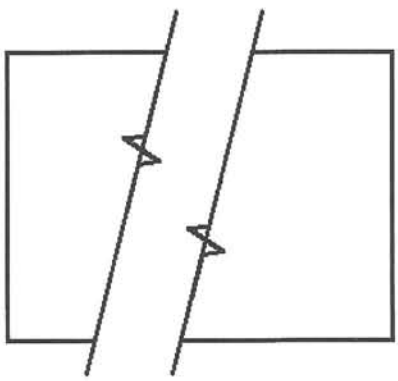
INSTRUCTIONS:

1. Start a **New** file using **My Decimal Setup.dwt**
2. Draw the objects shown below approximately as shown.



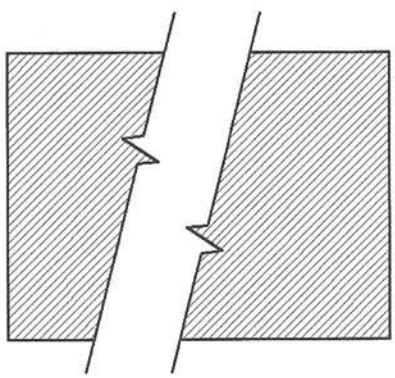
3. Add the **Break-Line** symbol to both lines as shown below

   Note: Use object snap **nearest** to place Break-LIne symbol accurately on the line.



Size: .300
Extension: 0

4. Trim the Line under the Break-Line Symbol and add the Hatch as shown below.



Hatch Type: Ansi 31

Trim before Hatch:
Trimming will take some thinking.

5. **Save** the drawing as: **EX30D**

Notes: