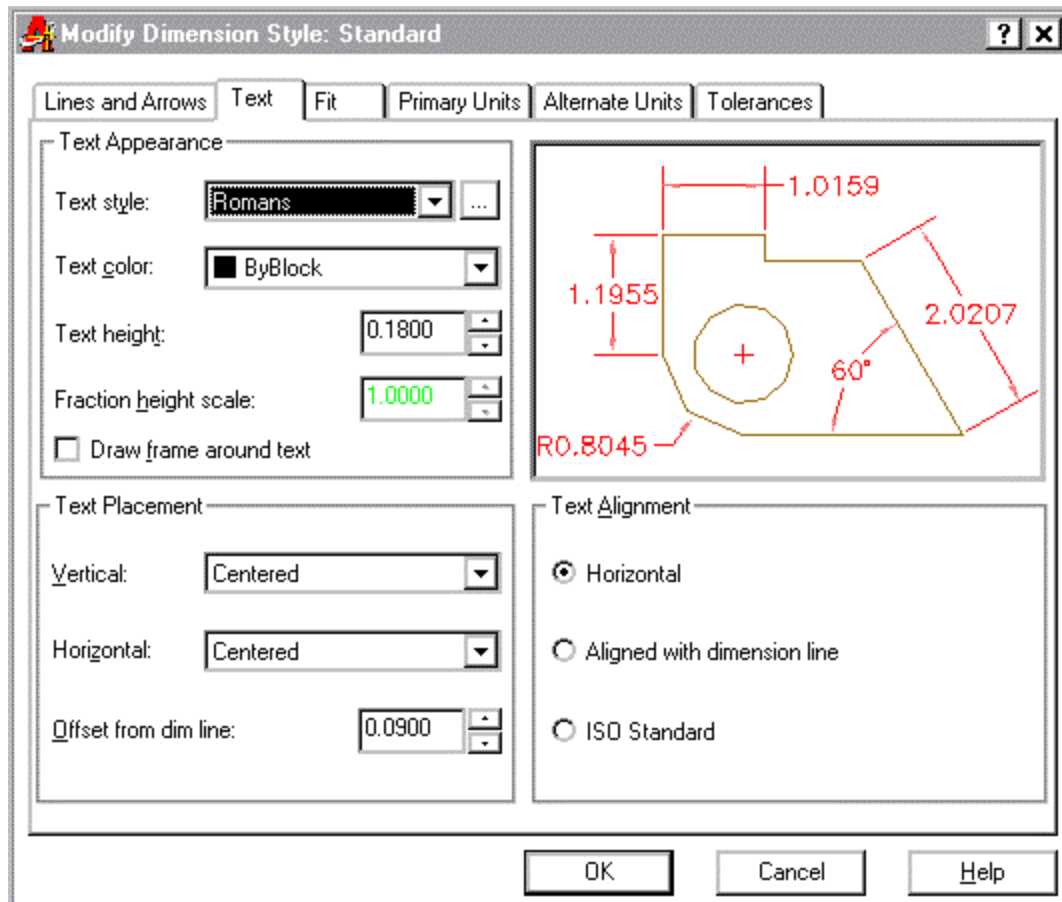


Using LE QLeader More Effectively

Many offices held off upgrading to AutoCAD 2000 until this past year. The R14 platform still allowed a form of backward compatibility. Because of the number of users who jumped across versions to 2000, we receive quite a number of problems that have to do with AutoCAD's dimensioning programs. This article focuses on the **LE QLeader** program and the answers to common questions on the use of this command.

Before starting the **LE QLeader** program, you should set your current font in the **ST Style** command dialog box to a ROMANS font. It is a little more appealing to read than the STANDARD font that AutoCAD uses to begin your session. Then use **DDIM** and [Modify] the Text to the ROMANS font that you just created. This is shown here:



Try drawing a couple of leaders first. Then try some of the following adjustments to see if these settings help make drawing Leaders easier. Keep in mind that some of the initial setting adjustments are to help users feel more comfortable with the transition to 2000. Once they become familiar, they will explore the options more thoroughly on their own.

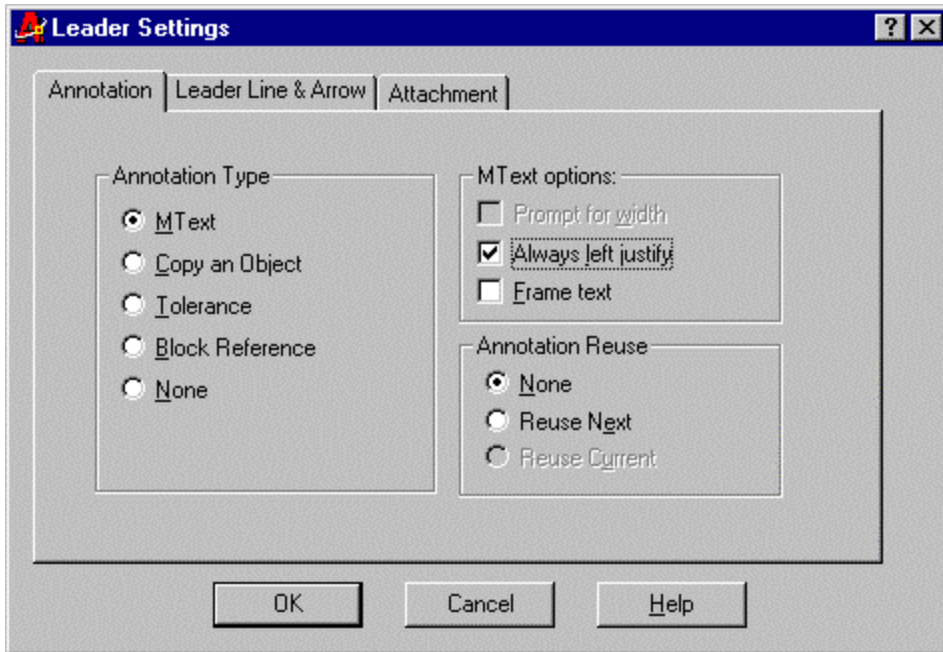
QUESTION: How do I change the way AutoCAD draws my leaders?

The first thing we point out to users is the use of the Settings dialog box.

Then, right after you start the **LE QLeader** the program, you can change your default settings by typing "S" for settings

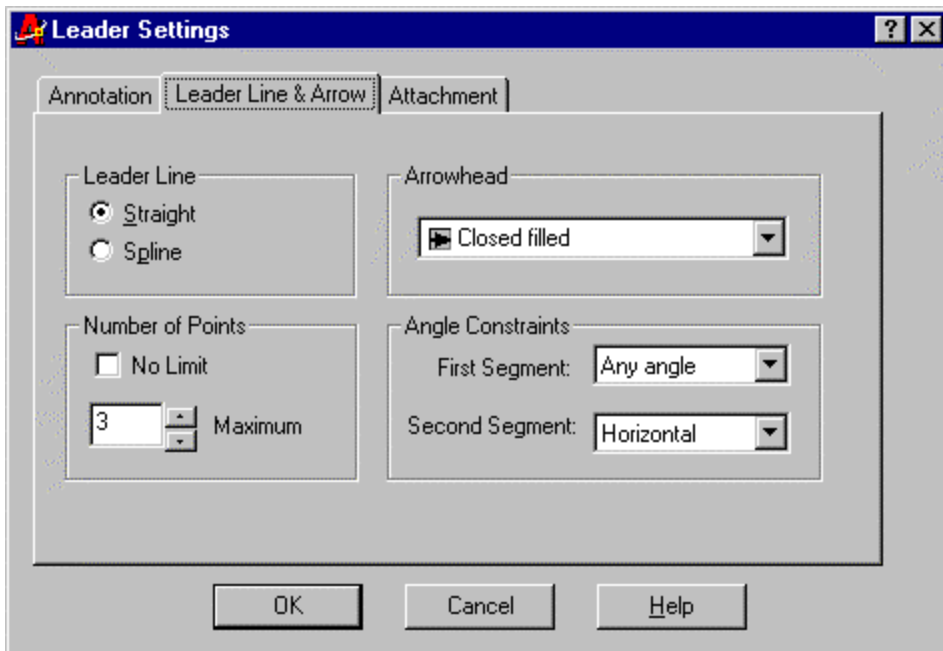
Specify first leader point, or [Settings]<Settings>: **S <Enter>**

You will see this dialog box appear:



Under the Annotation tab, we set the Annotation Type to MText.

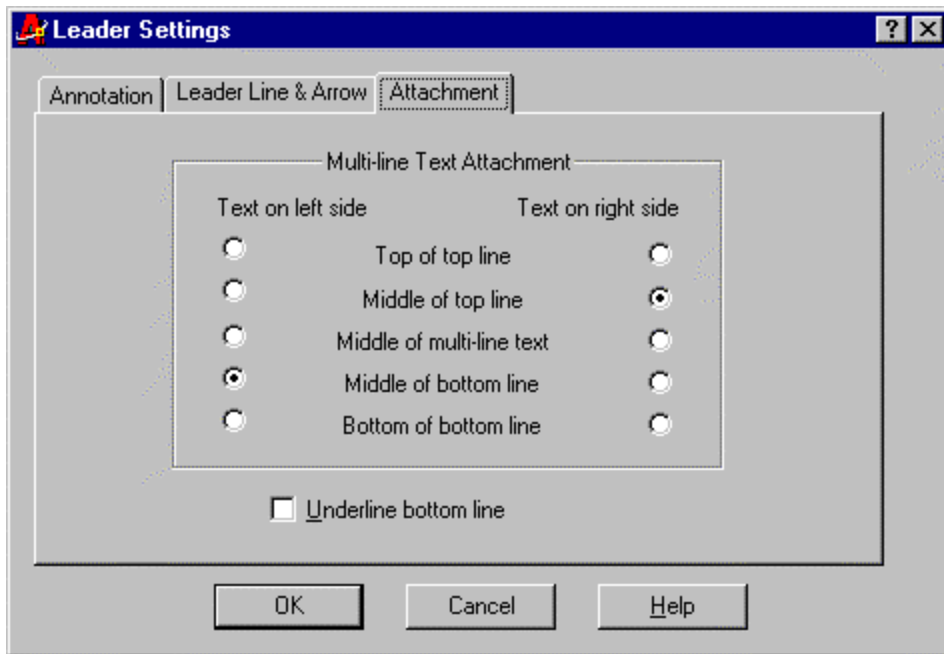
We turn off Prompt for Width and turn on Always left justify. This will stop the MText dialog box from opening automatically. Many users prefer this because it speeds up their drafting. This will be discussed again later.



Under the Leader Line & Arrow tab / Angle Constraints set the following:
 First Segment = Any angle
 Second Segment = Horizontal

These settings let you draw either a two or three point leader. See Option 1 and 2 below for a demonstration of this.

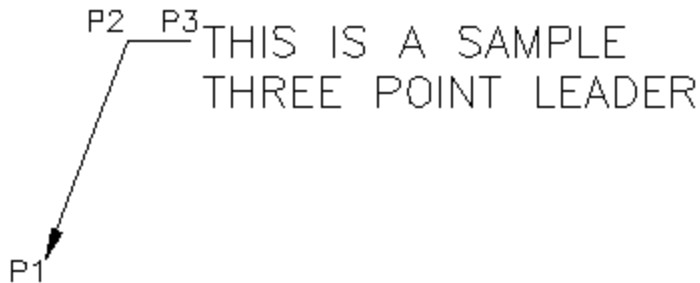
Under the Attachment tab, we use the use the old-fashioned drafting standard shown here:



The Settings / Annotation tab / MText Options shown previously have a great effect on how the prompts will be asked during the program. The MText setting under the Annotation Tab will require the following steps when drawing the leader:

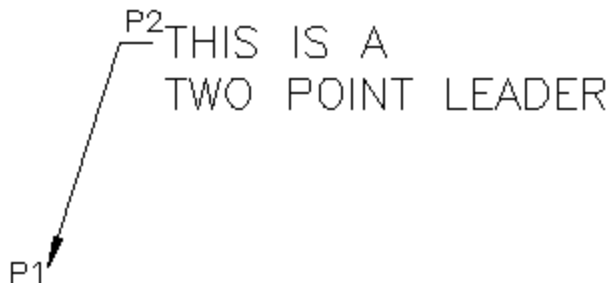
Option 1 – a Three Point Leader Line:

After picking the three points for the leader line, start typing your annotation. The text will react just like the familiar Text command. Notice that the text does not appear dynamically in the graphic screen but is only visible on the command line. Make an extra <Enter> at the end of the last line of text to stop the command.



Option 2 – a Two Point Leader:

Select only two points for the leader and <enter> to stop drawing the leader and start drawing the text.



Command: **LE** `_.qlleader`

Specify first leader point, or [Settings]<Settings>: **(Pick p1.)**

Specify next point: **(Pick p2.)**

Specify next point: **<Enter>** and AutoCAD will draw a horizontal line

Enter first line of annotation text <MText>: **(Type text and <enter>)**

Enter next line of annotation text: **(Type more text or <enter> to stop the command)**

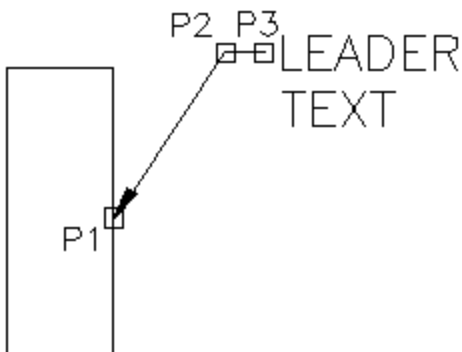
Option 3 – Use polar tracking to control the Leader:

Turn on Polar Tracking (button at bottom of AutoCAD window) and set to 15 degree increments before using LE QLeader. The 15 degree increments make your leaders look more uniform. Polar Tracking allows you to draw both the angled segment and the horizontal segment without toggling Ortho on. If you used LE QLeader “S” Settings to set the second segment as horizontal, Polar Tracking would probably be unnecessary in most cases.

QUESTION: How do I stretch the horizontal portion of a leader?

AutoCAD gives you the option of selecting just two points to draw the leader (see Option 2 above). When you stretch a leader created this way, the horizontal remains the same length.

If you want to be able to stretch the length of the horizontal, you must create the leader with three points instead of two.



Note: By selecting the leader line with grips on, you can tell if a leader was created with two points or with three points to define the leader line.

QUESTION: How do I align a new leader with a previously drawn leader?

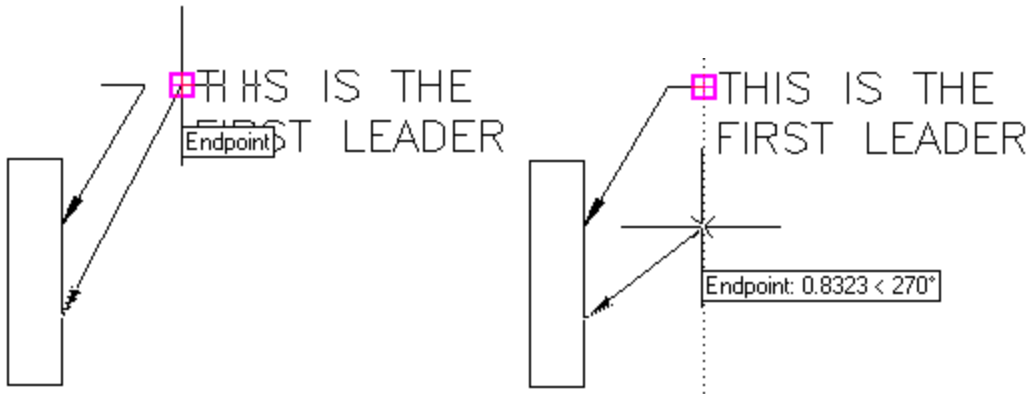
Method 1:

Make sure Object Tracking is On.

Start the LE QLeader command and select the point at the arrow end of the leader line.

When asked for the second point, move the mouse over the end of the first leader until the ENDpoint Osnap lights up.

Then move your mouse down to the endpoint of your new leader and click.



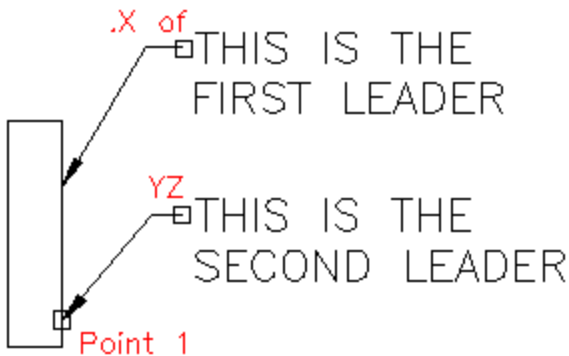
Method 2 (old-fashioned method):

Start the **LE QLeader** command and select the point at the arrow end of the leader line.

When asked for the second point, select the **.X** of the **END** of the previously created leader.

When the program asks for the **YZ** coordinates, pick the vertical location of your new leader.

Note: The **.X** of the top leader and the **yz** of a point in space



```

Command: LE _qlleader
Specify first leader point, or [Settings]<Settings>: NEA to
Specify next point: .X <Enter> of END of (need YZ): <Pick a Point>
Specify next point: <Enter>
Enter first line of annotation text <MText>: THIS IS THE <Enter>
Enter next line of annotation text: SECOND LEADER <Enter>
Enter next line of annotation text:<Enter>

```

Method 3:

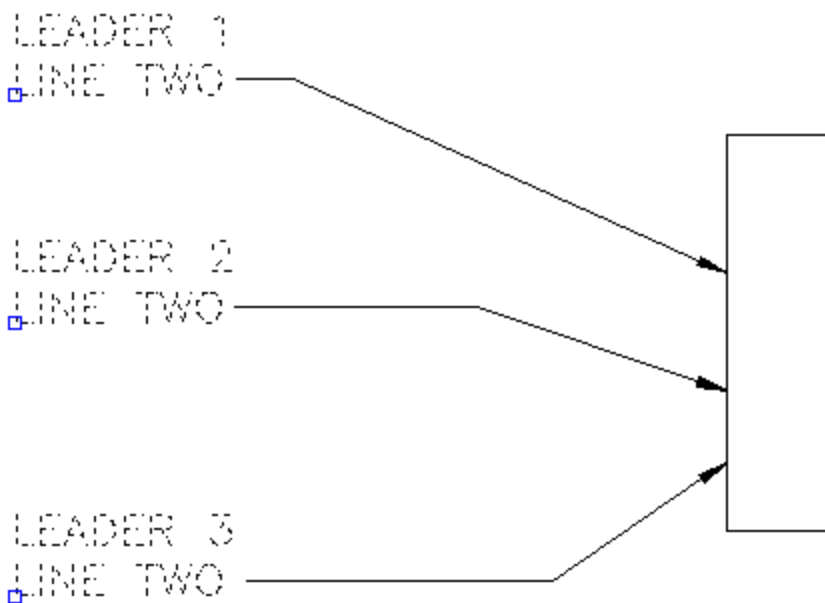
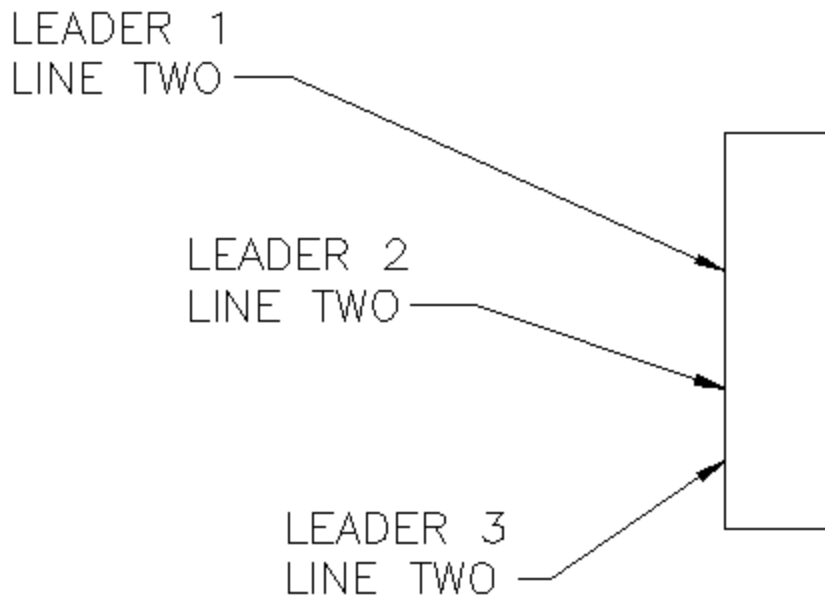
Draw a temporary vertical construction line (XLINE) at the end of the previous leader before you set the point of the following leader text.

Method 4:

Make your cursor longer (Tools / Options / Display / Crosshair Size) so you can line it up with the previous leader. This is not good drafting practice but you could probably get away with it.

Method 5:

Select the leader text you want to use as a guide to align other leaders. Use the **MO** Modify command to find out what the Geometry / Position X of this leader is. Copy this number to the clipboard with Ctrl+C. Now, select the other leaders that you want to align and change the Position X after you have all of them selected. You can paste in the previously stored number with Ctrl+V.

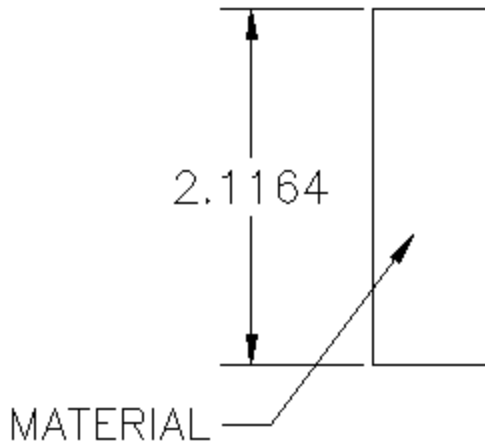


Notice how this method works equally well whether you have right aligned or left-aligned leaders.

QUESTION: How do I break a leader that crosses a dimension?

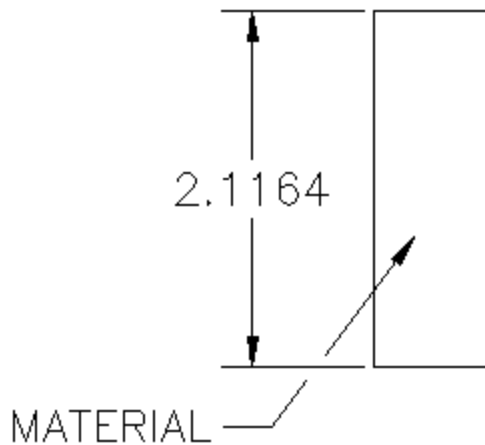
As a general rule, AutoCAD is designed to follow the “leaders on the right and dimensions on the left” rule. In 99.9% of the cases, you could probably plan your drawings and details in this fashion and save yourself a lot of frustration later on. Fred Stitt’s books on System Drafting describe this in detail.

However, in the cases when this is not possible you may have to cross a dimension with a leader. Good drafting practice says the dimension takes priority and cannot be broken. Here's what you can do:



X Explode the leader line.

Then **BR** Break the leader line selecting the two points where you want the gap.



QUESTION: When in a rotated view in a Civil or 3D drawing, the horizontal segment is at the wrong angle.

Often a Civil or 3D draftsman will use UCSFOLLOW and set to a user defined UCS User Coordinate System. The drawing is no longer oriented in the usual position.

After beginning the **LE** QLeader command, type "S" Settings. Leave the second segment as "any angle" instead of horizontal and you can still get the second segment to be horizontal by using ORTHO On.

QUESTION: How do I copy the style of one particular leader to others?

You can use the Paintbrush in the Standard Toolbar or type **MA** Matchprop to paint the style of one leader to another.

You can also use **MA** Matchprop to paint a different arrow such as a dot or an open arrow over an arrowhead leader.

QUESTION: How do I get the LE QLeader command to Stack Fractions automatically?

The QLeader Annotation settings shown at the beginning of this article will suppress the MTEXT dialog box during the leader command. However, the MText dialog box needs to be open in order to get the stacked fraction to occur.

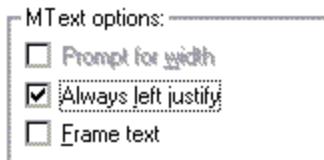
To over-ride this during the **LE QLeader** command, after you have drawn the leader line you are prompted to use <MText>. Just use your <Enter> key. This will start the MText dialog box in the middle of the Leader command.

```
Command: LE
Specify first leader point, or [Settings]<Settings>: <Pick a Point>
Specify next point: <Pick a Point>
Specify next point: <Pick a Point>
Enter first line of annotation text <MText>: <Enter>
```

Once you type in a fraction (for example: 1/2), you must type a space immediately following the fraction and the MText editor will stack it.

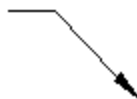
QUESTION: When creating a Left leader, why is the leader shorter than the lines above?

We used the Settings shown here at the beginning of this article:



These settings result in a leader that expects you to return at the end of each line and the resulting leader looks like this:

FIRST LINE OF
LEFT LEADER AND NOTICE
HOW MUCH LONGER
THE SECOND
LINE IS



The leader stops at the end of the longest line in the paragraph.

Notice that the text, even though it is MTEXT, does not have the boxes at each corner and so you cannot resize the width of the text as it is.

There are at least three ways that you can fix this leader.


METHOD 1:

If you make sure you place your <Enter> key so that the last line of your leader is longer than the rest, then the leader will meet the text. However, this is not always possible.


METHOD 2:

Turn Ortho On and use Grips to stretch the end of the leader back to meet the last line of text.

FIRST LINE OF
LEFT LEADER AND NOTICE
HOW MUCH LONGER
THE SECOND
LINE IS



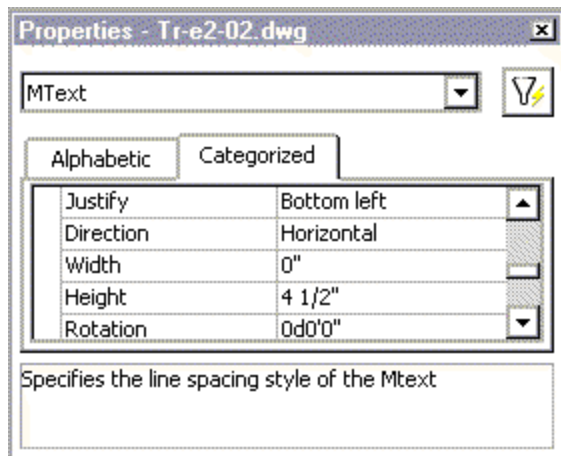
FIRST LINE OF
LEFT LEADER AND NOTICE
HOW MUCH LONGER
THE SECOND
LINE IS



METHOD 3:

If you type **MO** Modify to change the text, it shows the Width as "0".

If you change the width to the real width of the text (for example 60) the corner boxes will appear and you can then re-size the text. If you aren't sure how wide your text is, watch your coordinates in the lower left corner of your AutoCAD screen and take a rough guess how much the X value changes as you move from the left side of your text to the right.



QUESTION: When creating a Left leader, why do the leader lines not attach to the "middle of bottom" line of text?

Notice the hanging "g" 

AutoCAD considers the height of letters that hang below the line when it calculates the middle of the bottom line. If this text were all capital letters, this wouldn't happen.

QUESTION: When Mirroring a Leader, it changes the leader shape. Why?

TEXT LINE ONE 

An AutoCAD bug causes this. If you **MI** Mirror and say "N" No to deleting the original objects, this doesn't happen. But if you say "Y" Yes, it modifies the points of the original leader and causes the extra "Hookline" on the leader.

Just Say "N" No to deleting... Then delete the original leader later.

QUESTION: How do I get the MText Dialog during the LE QLeader program?

Many prefer the MText dialog to open during the leader program so that they can make fractions stack in their text.

If you have changed your settings for Leaders as described at the beginning of this article, your Command prompt should react similar to what you see here:

```
Command: LE <Enter>  _qlleader  
Specify first leader point, or [Settings]<Settings>: <Pick Point>  
Specify next point: <Pick Point>  
Specify next point: <Pick Point>  
Enter first line of annotation text <MText>: <Enter>  
Command:
```

If you use the <Enter> key at the <MText> prompt, you will open the MTEXT dialog box instead of seeing the text dynamically appear on screen.

While the MText dialog box is open, you can stack fractions if you put a space after the fraction. Once the fraction stacks, you can back up to remove the space. Then put in your inch mark (") if necessary.

NOTE: The width of the MText paragraph will be to the same width as the last MText paragraph that you specified. You can always re-size it with grips after you are done typing and close the MText dialog box.

AutoCAD users usually don't remember everything they read the first time or even the details of what they have been shown in training classes. Some have found it useful to post information like the above on their network or company intranet so it can be a handy reference to their users. This helps speed the learning curve of the first year of using AutoCAD 2000.