

Quick Scene 5

Crash Scene Diagrams in 5 Minutes!

© The CAD Zone, Inc. 2013

All rights reserved.

Quick Scene

The CAD Zone, Inc. – 4790 SW Watson Ave, Beaverton, OR 97005

800-641-9077 www.cadzone.com

Page 1

Quick Scene

The CAD Zone, Inc. – 4790 SW Watson Ave, Beaverton, OR 97005

800-641-9077 www.cadzone.com

Welcome to Quick Scene!

This manual introduces you to Quick Scene,[™] a drawing program for creating quick crash scene diagrams that are ideal for state reports. It explains how to get help with the program, program basic concepts, and includes a basic tutorial designed to get you drawing quickly.

How to Contact Us

Feel free to contact The CAD Zone with any questions:

The CAD Zone web site at: <http://www.cadzone.com>

Email Support: info@cadzone.com

Phone Support: (503) 641-0334 Fax: (503) 641-9077

Available Monday – Friday, 8:00 a.m. – 5:00 p.m. PST

System Requirements

To use Quick Scene you must have a computer with a Pentium IV or better central processor, running Microsoft Windows XP, or a newer version of Windows. You must have at least 1 GB of RAM and 10 GB of free hard disk space. The minimum screen resolution is 1024 x 768 pixels.

Copyright Laws Apply!

All CAD Zone software is protected by international copyright laws. You probably know you can't legally make a copy of someone's book (if it is protected by a copyright) and give it to everyone in your department or company. The same protection applies to software. When you purchase a copy of Quick Scene, you are actually purchasing a license to use the program on ONE computer.

Each purchased copy of the software may be installed only on a single computer.

This means you can obtain one Access Key, which allows you to license the software on one computer for each copy of the software you purchase. The CAD Zone's complete license Agreement is printed on the envelope that contains your program CD.

Install First – Then License Your Software

Separate Installation instructions are included in this software package. Follow those instructions to install your program. You can only license your program AFTER IT IS INSTALLED onto your computer.

When you first install the program, it will be in Evaluation Mode. This means you can open the program 10 times and have access to all of the program features. After those 10 times you can still open the program and try it out, but you will not be able to save your diagrams until you complete the licensing of your new software. To license your program for unlimited use, you must obtain an Access Key from The CAD Zone and enter it into the program.

The Access Key is unique to each computer - Call, email, or go online to receive your Access Key.

Before you can obtain an Access Key, you must purchase the program. The CAD Zone must have received a Purchase Order from your government agency or have successfully charged your credit card.

Find Your Computer ID

Each time you open the program, a Registration dialog box is displayed that prompts you to enter an Access key. You can also bring up this dialog box at any time with these steps:

1. Open the program and select the Help pull-down menu.
2. Select License

Once the Registration dialog box is displayed, you will see the *Computer ID for your computer*. You must provide this Computer ID to The CAD Zone so we can generate your unique Access Key. This Access Key will ONLY work on the computer with the matching Computer ID. Once you enter your Access Key, your program will be fully licensed and you have unlimited access to all the features.

To License Your Software Online

When you purchase your software you will receive an email notice with information on how to log onto the CAD Zone website and obtain your access key, including a user name and a temporary password.

1. As instructed in the email, go to: <http://www.cadzone.com/license> and log in to your customer account.
2. Once you log in, you will be sent to the "Get Keys" webpage. Choose the product you wish to license and enter the particular computer's ID from the License dialog box.

Follow the instructions on the site to obtain your access key and enter it into the registration dialog box in the program (described above).

To License Your Software Via Email

1. Open the program, select the Help pull-down menu, and then select License to bring up the Registration dialog box, as described above.
2. Click the button "Get Access Key Via Email."
3. Enter your customer information in the form that is displayed.
4. Click "Submit Email request for Access Key." Your Access Key will be emailed to you, normally on the next business day.

To License Your Software by Phone, Monday – Friday, 8:00 am to 5:00 pm, Pacific Time

1. Open the program, select the Help pull-down menu, and then select License to bring up the Registration dialog box, as described above.
2. Call The CAD Zone at 800-641-9077 and give us your computer ID.
3. We'll generate your Access key and read it back to you over the phone so you can enter it into the Registration dialog box.

Training Materials

Most Quick Scene users teach themselves how to draw by working through the available tutorials and training movies. Quick Scene includes many resources that can help you learn to use the program, including the Learning Center, the electronic help, movies, and tutorials.

The Learning Center

The Learning Center is the first place to go for help with the program. There are a variety of training materials here, including tutorials for those just getting started and tips and tricks for using the most complex features. The Learning Center provides you with shortcuts to “How Do I?” topics, tutorials, step-by-step movies, electronic help, and helpful web links.

Electronic Help

The electronic help (accessed from the Help pull-down menu), contains step-by-step instructions for commands used in the program and instructional tutorials.

The Learning Center Movies

A number of instructional movies are included on the program DVD that provide step-by-step instructions for many of the program commands. If you do not have access to the program DVD, the training movies can also be viewed from the training section of The CAD Zone’s website, described below.

CAD Zone Training Web Site

The CAD Zone’s training website contains tutorials, user’s manuals, training movies, and other documentation. To enter The CAD Zone’s training web site:

Go to: www.cadzone.com and select the Training button

Or go directly to <http://training.cadzone.com>

Free Technical Support

The CAD Zone offers free telephone and email technical support. You can receive Email support by submitting your questions to: info@cadzone.com. Telephone support is available by calling:

(503) 641-0334, Monday-Friday - 8 a.m. to 5:00 p.m. Pacific Time

Program Basics

Before you start drawing, it's a good idea to understand some things about how Quick Scene works, such as compatibility, vector objects, drawing scale and satellite images.

Compatibility

The Quick Scene program will allow you to save to .BMP, .WMF, .PDF, and .JPEG formats for easy placement into text documents.

Vector Drawing Vs. Bitmap

Quick Scene is a "vector-based" drawing program, meaning you construct your diagram by creating objects such as lines, circles, rectangles, text, colored fills, and so on. This method is best for drawing floor plans and site plans because you can draw to actual measurements and maintain accuracy.

Since everything is constructed of objects, it's very easy to edit your diagrams. For example, if you want to move a line or symbol, you simply click on it and move it. You can also import Satellite Images from Microsoft's Bing™ Maps and draw on top of the image for a fast way to create a pre-fire plan diagram.

Always Draw At 1 to 1 Scale

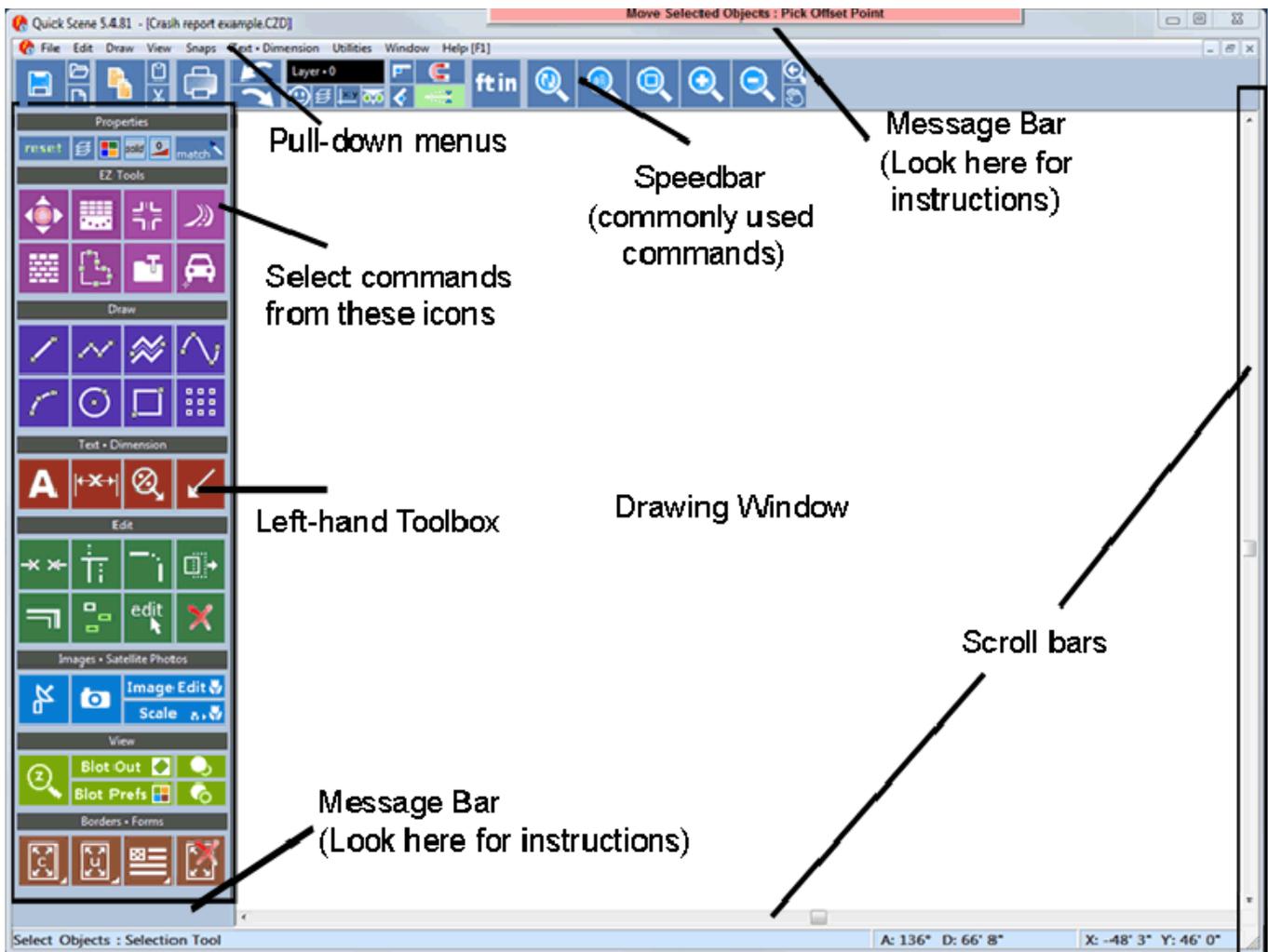
You never have to calculate a drawing scale when you draw. In Quick Scene *you draw everything to the actual measurements* that you took at the site. In other words, you use a 1 to 1 scale. We expect to scale our drawings to fit on a piece of paper, but the computer doesn't have that restriction! Think of it like drawing on a sheet of paper that is infinitely large. If you want to draw a building that is 200' x 150', you tell the program to create a rectangle with those exact measurements.

Once an object is drawn, its size never changes (unless you choose to scale it) so accuracy is always maintained. You can zoom in on an area of your drawing to make an object look larger on the computer screen, but that just changes the display, not the actual size of the objects. It's like using a camera with a zoom lens. You only have to set a drawing scale when you want to print your diagram.

The Program Screen

Throughout this manual, we will refer to various portions of the program screen. It's very important that you know where to find the Speedbar, the Left-hand toolbox, the Message Bar, and so on. Important sections of the program screen are identified below.

Tip: Whenever you're not sure what to do next, look at the Message Bar at the bottom of the program screen! The simple prompts given on the Message Bar will help you learn to draw easier and faster.



Keyboard Shortcuts

There are three ways to select nearly every command (feature) in the program - select from the Pull-down menus, click an icon on the Left-hand toolbox, or type in a two-letter shortcut on your keyboard. Examples of two-letter shortcuts include ZW for Zoom Window or C2 for 2-point Circle. The two-letter shortcuts are listed in the electronic help, and they are shown on the pull-down menus, to the right of each command name. Using some of the more common shortcuts can really reduce your drawing time.

Tip: There are a couple other keys on the keyboard that you will find to be very useful as you draw – the Esc key and the Space Bar.

Esc Key – The “Escape” key is used to take a step backwards, backing out of a command. For example, if you are placing points to draw a curve, pressing Esc will undo the last point, without canceling the entire command, so you can place it differently.

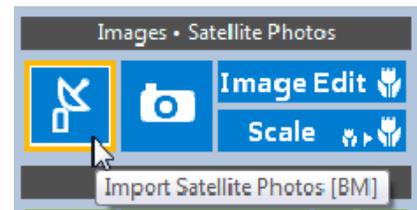
Space Bar – Pressing the Space Bar on your keyboard will repeat the previous command. This can be a great shortcut when you need to draw the same object or place the same symbol in multiple places.

Use Aerial Photographs From Bing™ or Google™ Maps

A fast way to create a pre-incident site plan is to start with an aerial or satellite photograph and draw on top of it. Quick Scene has Microsoft's Bing™ Maps and Google™ Maps integrated into it so you can easily find a satellite image of any area. If you bring in a satellite Image from either mapping system, it will automatically have a 1:1 scale. You can use the Quick Scene dimension tool to measure the side of a building and the measurement will be accurate. If you draw on top of the image to trace a building or other object, you will automatically be drawing at a 1:1 scale.

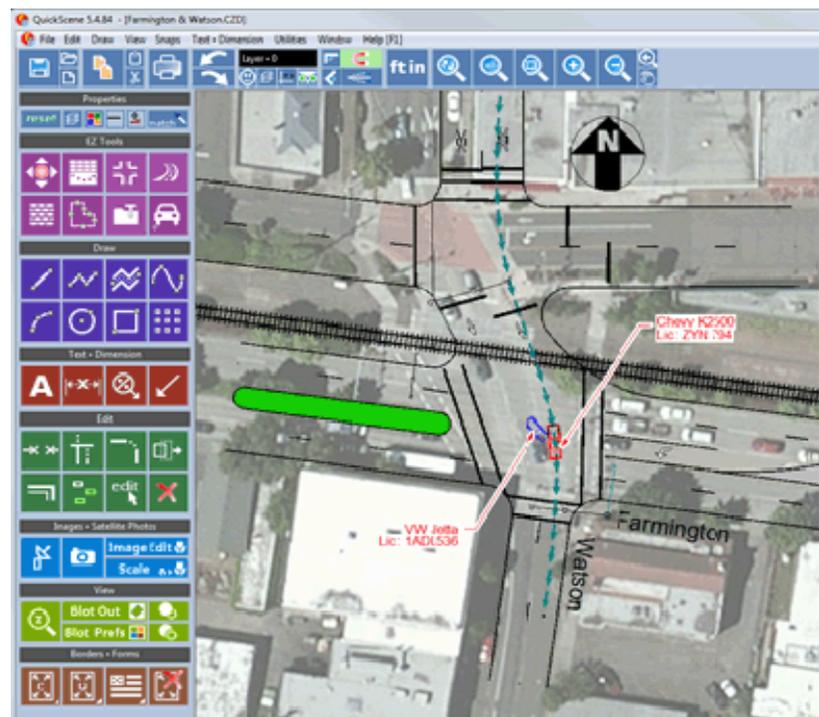
To search for a Bing or Google image, click the "Import Satellite Photos" on the left-hand tool toolbox.

A new window is displayed with a text box in the lower-left corner. Type an address or the name of a location, such as a hospital or school name in this text box. Within seconds the satellite image is displayed. Use the slider bar on the left side to zoom in and out to get exactly the image you want. Click the Place button and then click in the diagram where you want to place the image.



Once the image is placed, you can use any of the drawing and editing tools in the program to draw on top of the image and turn it into a pre-fire plan diagram. You can use bold lines to show streets, place text, and dimensions. Quick Scene also includes thousands of pre-drawn symbols that you can drop into place to show vehicles, signs, utility poles, and more. This is an extremely fast way to create a detailed crash scene diagram!

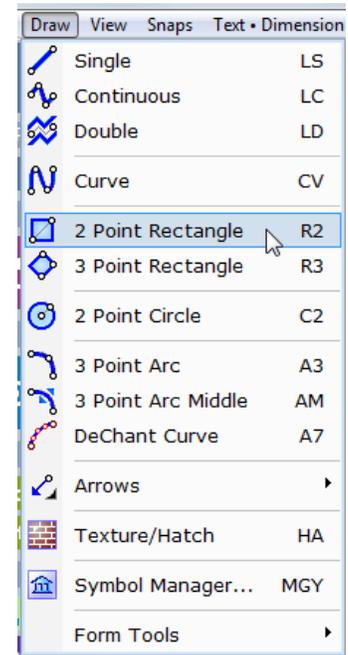
Tip: Once the image is placed go into Image Edit and Fade the image to make it lighter so all of the other objects such as symbols, text, outline and more will be easier to read.



Drawing Tools

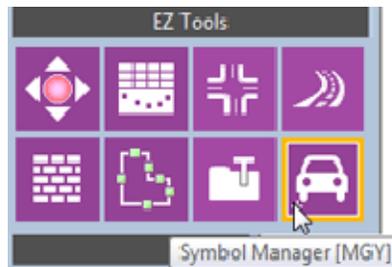
Everything in your diagram will be constructed of basic objects like lines, arcs, curves, circles, text, and so on. Lucky for you, you do not have to actually draw every individual object in your diagrams because most objects you will want to show are part of an aerial photograph or are provided as pre-drawn symbols. Even with so many symbols provided for you, it is still important that you learn to use the basic drawing commands. You may want to add rectangles to outline buildings and parking lots, place arrows (leaders) to call attention to details, or draw lines and curves to show streets.

The left-hand toolbox includes a variety of commands for drawing basic objects all grouped together under the Draw section heading. You can also select any of the Draw commands from the Draw pull-down menu. There are multiple commands for drawing some objects, like arcs, because they can be drawn in different ways depending on what kind of measurements you have. Descriptions of how to use some of the basic drawing commands will be given in the tutorial, later in this manual.



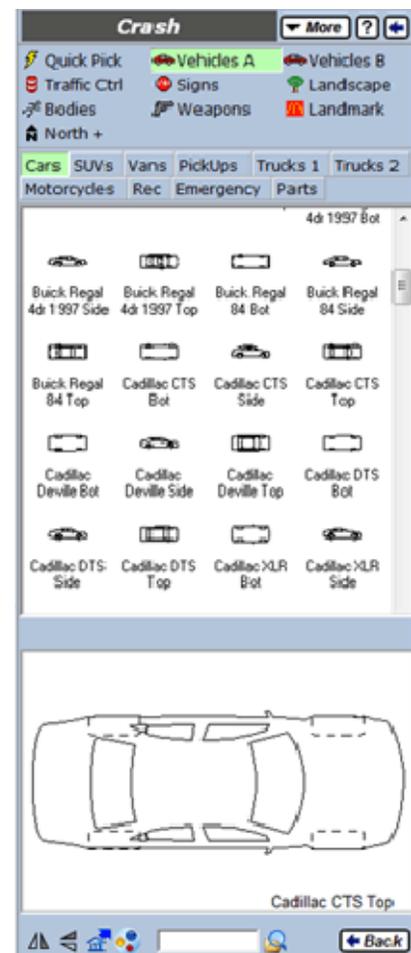
Placing Symbols

Many of the objects that you place in your diagrams are already pre-drawn for you and included in the program as “symbols.” The symbols are divided up into groups that are shown by icons in the Symbol Manager. Open the Symbol Manager by clicking the icon in the EZ Tools section of the left-hand toolbox.



The top of the Symbol Manager toolbox shows which symbol group is currently displayed. In the figure here, it’s the “Vehicles A” group. If you click the “More” button beside the word Quick Scene, you can select from the other symbol groups including, Crime, and My Symbols, which are symbols that you create.

Many symbol groups have multiple sub-groups that you select by clicking the tabs above the symbol preview window. For example, in the Vehicles A group, you can then select from the sub-groups: Cars, SUVs, Vans, and so on, as shown here. When you click on a symbol to select it, a larger preview of that symbol is shown at the bottom of the Symbol Manager.

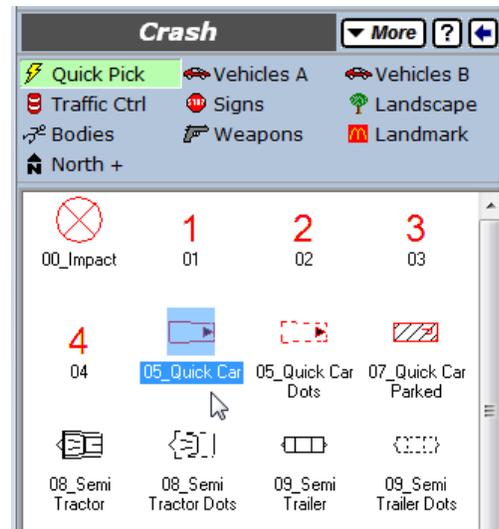
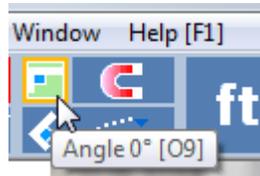


Quick Scene

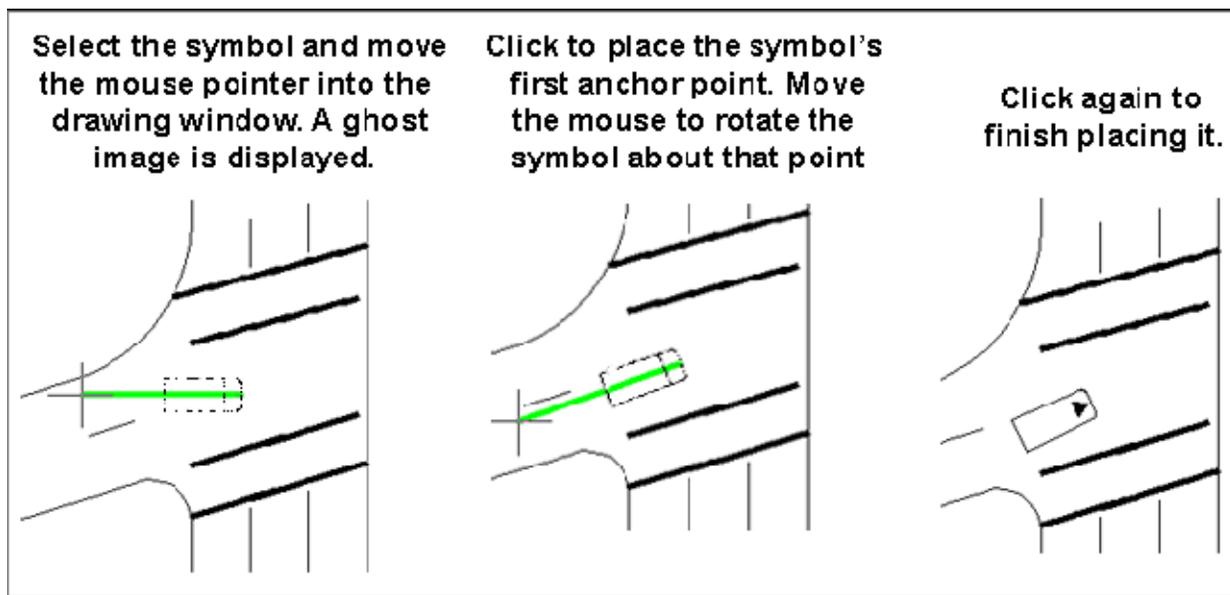
The CAD Zone, Inc. – 4790 SW Watson Ave, Beaverton, OR 97005
800-641-9077 www.cadzone.com

Here is how to add a “Quick Car” symbol to a diagram:

1. Open Symbol Manager and select Quick Pick symbol category. (This is in the Crash group, if Crash is not the current symbol group, click “More” and select it.)
2. Click on the desired symbol in the preview window to select it, the Quick Car symbol, in this case.
3. Move the mouse pointer into the diagram and you will see a preview of the symbol, attached to the pointer.

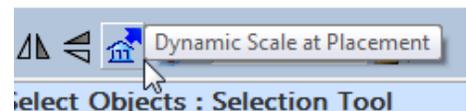


4. If you want the symbol to be exactly horizontal or vertical, you can turn ON the Angle Draw 0° feature, located on the upper-toolbar. This makes it easy to place symbols so they are exactly horizontal or vertical.



All symbols are drawn at a specific size. For example, the Cadillac CTS is drawn to be the actual length of that vehicle. If you are placing a vehicle symbol on a very large satellite image it may appear small. For some symbols, you may want to change their size. You can do this with the Dynamic Scale feature on the Symbol Manager

1. Click the Dynamic Scale at Placement icon on the bottom of the Symbol Manager toolbox.
2. Click once in the diagram to place the symbol's anchor point.
3. Move your mouse to the right and you will see an outline of the symbol that gets larger or smaller as you move the mouse away from the anchor point. If you do not set Dynamic Scale to on, you will not be able to change the symbol's size.
4. Click again to finish placing the symbol when it has the desired size.



Textures and Hatch Patterns

It is easy to fill an area of your diagram with a pattern or a solid color. You can select from more than 100 textures and hatches, including grass, water, sand, concrete and so on. The Texture-Hatch toolbox is one of the EZ Tools on the left-hand toolbox.

There are four command icons at the top of the Texture-Hatch toolbox that are different methods for placing textures and hatches. You can fill inside existing objects, like rectangles, circles, polygons, by selecting them and using the Hatch Selected command. You can click inside a completely closed area and fill it with the Seed Hatch. You can fill an area of the screen with the Boundary Hatch command by clicking or snapping to boundary points. Hatch Selected, Boundary Hatch, Seed Hatch, and Window Hatch all work the same way, regardless of whether you have chosen to place a Texture, a Hatch or a Solid Fill.

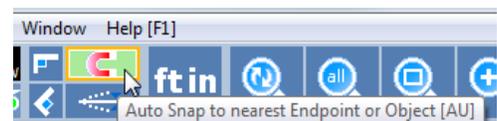
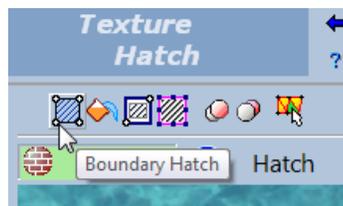
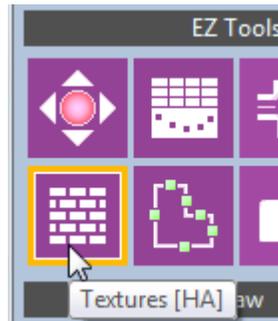
Here is how you can fill a swimming pool with a water texture:

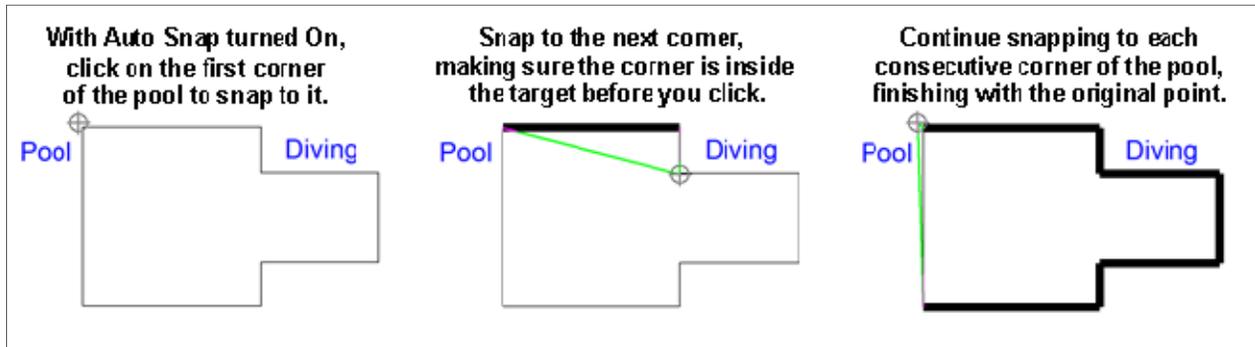
1. Click on the Textures icon in the EZ Tools section of the left-hand toolbox.
2. By default, the list of Textures is automatically displayed. Click on the “Hatch” tab to display the list of “cross hatches,” or to fill an area with a solid color.
3. Scroll through the list of textures until you see Water_3 and click on it.
4. Make sure that “Auto Snap” is turned on, which is shown when the magnet icon at the top of the screen has a green background. If it does not have a green background, click the magnet icon to turn Auto Snap ON.

Tip: With Auto Snap turned on, the mouse pointer is turned in to a circular target. If you position this target so an object or the endpoint of a line is inside it and click your mouse, you will snap exactly to that object.

5. Click on the “Boundary Hatch” icon at the top of the Texture toolbox.

6. Position your mouse pointer so one corner of the pool is inside the Auto Snap target and click to snap exactly to that point.

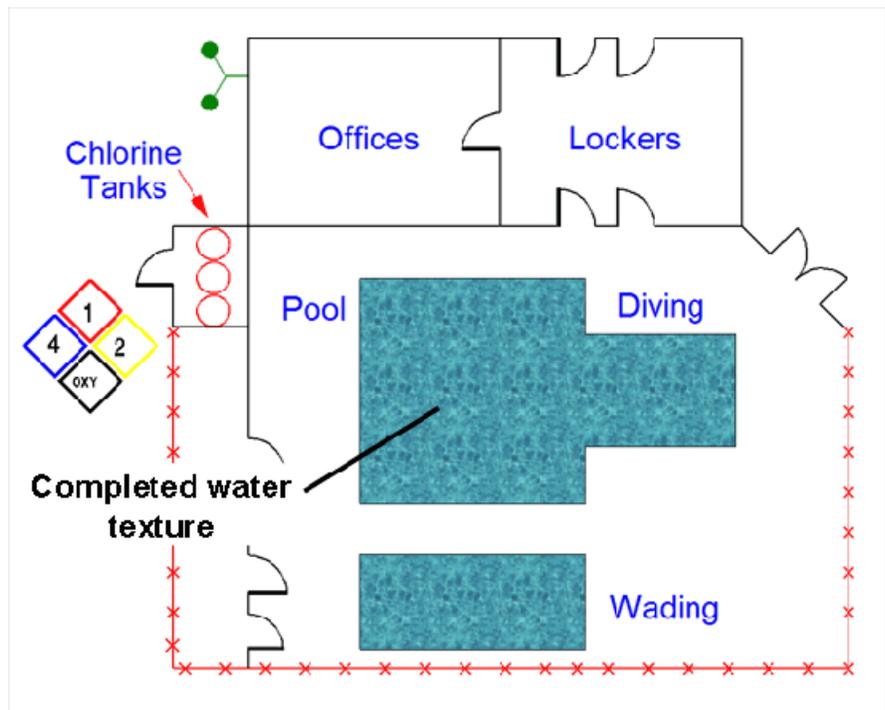




7. Move clockwise to the next corner of the pool and snap to it.

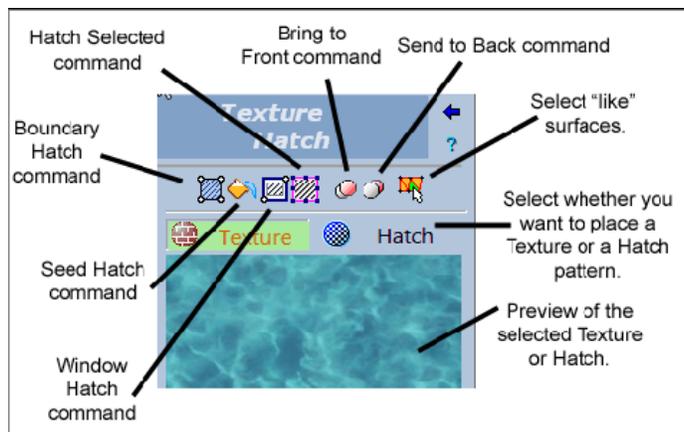
8. Continue moving around the boundary of the pool, snapping to each corner. Finish by snapping on the initial corner point.

9. Press the Enter key on your keyboard to complete the boundary and place the texture.



Tip: If a texture or hatch pattern appears too small or too large, you can change its scale. Click on an existing Hatch or Texture in the diagram, right click on it and select Edit. Enter a larger scale to make the pattern display larger or a smaller scale to make it smaller.

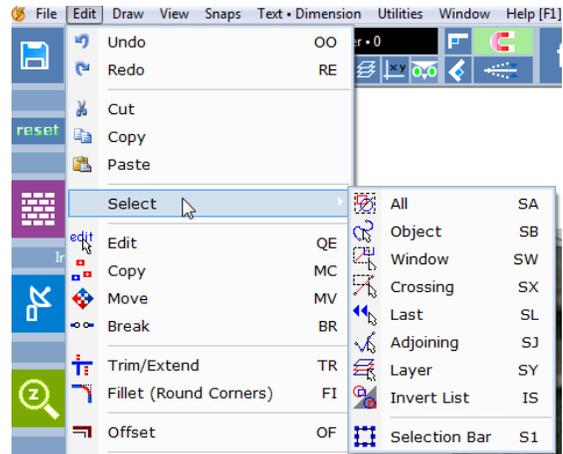
There are other methods you can use to place textures and hatch patterns, so you can choose the one that works best for your diagram. Besides the Boundary Hatch command, there is Seed Hatch, Window Hatch, Hatch Selected, and Select Like Surfaces.



Selecting Objects for Editing

As you draw and place symbols you will want to make changes to your diagram. Before you can perform an editing command, like Move or Copy, you must select the objects in your diagram that you want to change. It's easy to select a single object, you simply left-mouse click on it. However, you will frequently want to modify a number of objects at once, whether to change their size, move all of them to a new location, or change their properties.

Being familiar with the various selection methods makes drawing and editing much faster because you can quickly select just the objects you want to modify. You can see all the selection commands by choosing "Select" from the Edit Pull-down menu.



Tip: When objects are selected, they are displayed in pink and surrounded by blue, square handles.

Tip: To un-select objects, just click your mouse in a blank area of the drawing window.

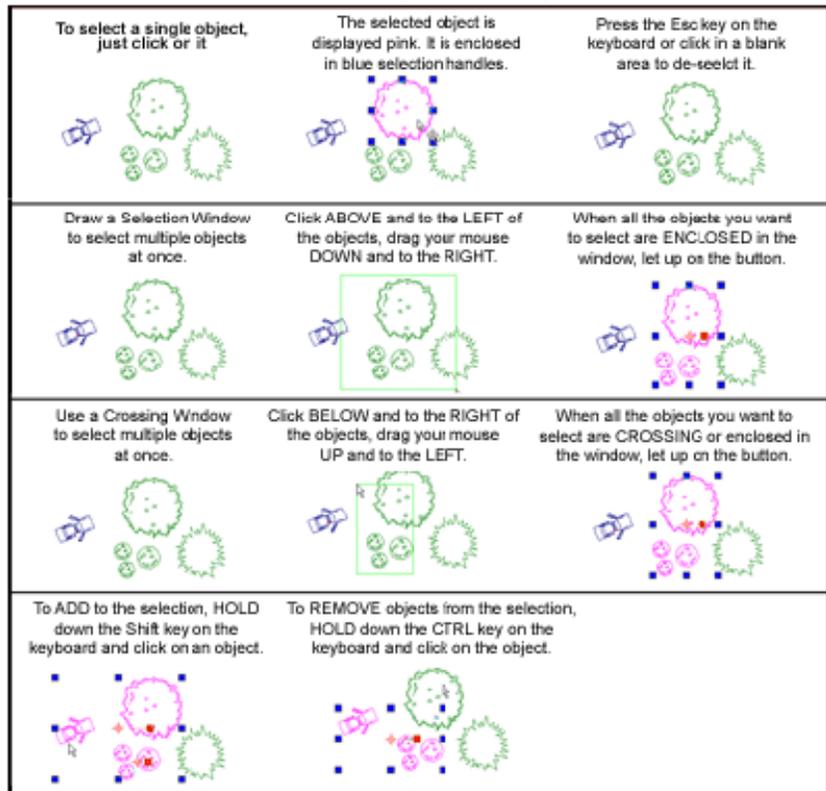
Using The Mouse To Edit

When objects are selected, a red target symbol and a red square (rotation handle) are displayed near the center of the selected objects. You can use your mouse to manipulate these special handles as shortcut methods to move, rotate, and re-size objects:

You can quickly select a group of objects by enclosing them in a Selection Window. Place your mouse pointer above and to the left of the objects, hold down the mouse button and drag your mouse down and to the right. When all the objects you want to select are completely enclosed in the window, let up on the mouse button.

Similarly, you can select all objects that *cross through* a selection window by drawing the selection window in the opposite direction - start below and to the left and move your mouse upward, to the right of the objects to select.

There are many ways to select objects!



Tip: If you have a large diagram and you select a small object, you may see it turn pink but not be able to see the selection and rotation handles. Simply use the Zoom Window command to zoom in around the object until the handles are displayed.

To move the selected objects -Place your mouse pointer inside the blue selection handles and hold down the mouse button to drag them to a new location. (If you want to snap objects to a precise point, use the Move command by typing MV on your keyboard.)

To rotate the selected objects -Place your mouse pointer on the red, square rotation handle near the center of all the selected objects and drag your mouse in a circular motion. (If you want to rotate objects an exact angle, use the Rotate command so you can enter the precise angle.)

To scale, or resize, the selected objects – Place your mouse pointer on any of the blue, square selection handles and *hold down* the mouse button to drag them to a smaller or larger size. If you want to resize objects proportionally, not changing their ratio of width to height, place your mouse pointer on a selection handle that is on one of the corners and drag it to the new size.

Editing Commands

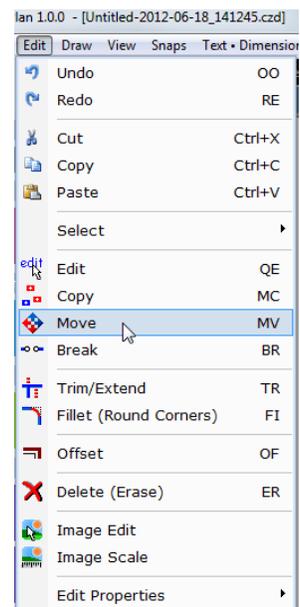
Once an object or objects are selected, they can be modified with the various Edit commands. Edit commands can be performed either by selecting one of the Edit commands from the Edit pull-down menu, by selecting a command icon from the left-hand toolbox, or for some commands, by using your mouse.

There are commands to Cut, Copy, Paste, Move, Break an opening, Trim or Extend Fillet, and so on. For many editing operations, there is more than one way to perform it, so you can choose the one that gives you exactly the results you want. For example, if you want to make a copy of some objects you can use the standard Copy to the Windows Clipboard or the Multiple Copy command which allows you to make multiple copies of selected objects to an exact location.

Tip: Whenever performing an Edit command, be sure to look at the Message Bar at the top of the screen. This is where you will get instructions on what to do next!

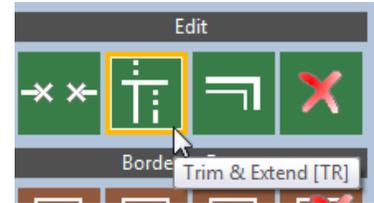
Many of the Edit commands require you to choose a reference point, or handle, and a new location for that handle. For example, when you start the Move command, the Message Bar at the top of the screen will prompt you to “Pick Reference Point.” You can click on any point, or snap to grab an exact point like the end of a line. Think of this as the handle by which you will pick up the object. Next you are prompted to “Pick Offset Point.” This point is the new location for the handle. If you wish to move the objects to some exact point, be sure to use Snap commands to accurately grab each of the reference points!

Next, we’ll give specific instructions on how to perform two of the more detailed Edit commands, including Trim/Extend and Break.



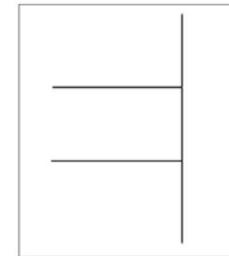
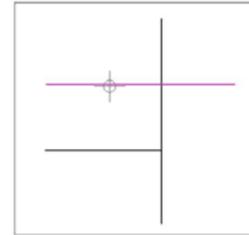
Trim and Extend

Use the Trim/Extend command when you want to trim or extend an object so it ends exactly at another object. You can use this command to trim or extend lines, continuous lines, arcs, and curves. For example, when creating an intersection you can trim or extend a line that represents one side of a street so it ends exactly at another line.



In this example, we will trim the top horizontal line so it ends exactly at the vertical line. To trim or extend an object to another object:

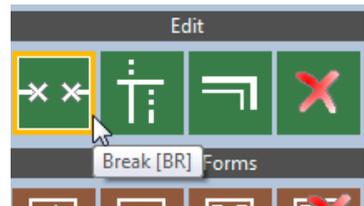
1. Click on the Trim & Extend icon on the left-hand toolbox, or select the Trim/Extend command from the Edit pull-down menu
2. Click first on the object to be trimmed, near, but not on the end that is being trimmed.
3. Next, click on the object to which the first object will be trimmed, the vertical line, in this example.



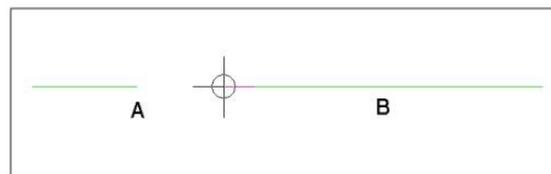
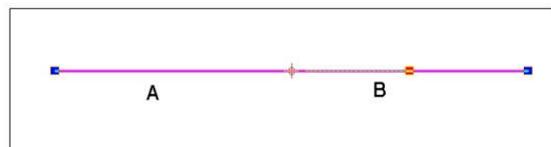
The first object will be trimmed or extended so it ends exactly at the second object that you selected.

Break

Use the Break command when you want to break a gap, or hole, in an object. For example, you may want to insert an opening in a wall for a door or window.



1. Select the Break command from the left-hand toolbar or from the Edit pull-down menu.
2. Select the line or object that you want to break. You can click on it or use any of the selection methods.
3. Click or snap on the object where you want the break to begin. This point need not be exactly on the object; the break will start at the point closest to the point you place.
4. Move your mouse and a dynamic preview of the break appears, changing as you move the mouse.

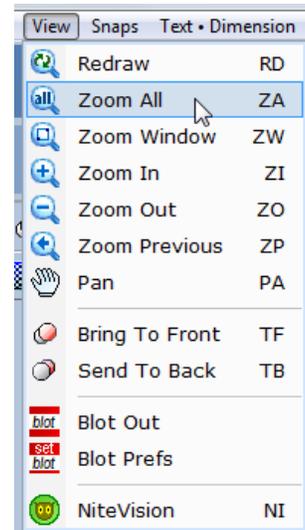


Click or snap where you want the break to end. A hole is broken in the object between the two points you selected.

Changing Views

As your diagrams become larger and more complex you will frequently want to change how the diagram is displayed on the screen. That's where the View, or Zoom, commands come in. You can show the entire diagram on the screen (using the Zoom All Command), but then it may be difficult to see the smaller details. You will learn to zoom in to draw small details and zoom out to make more visible space for placing a large item, like a building.

Tip: You can think of the Zoom commands like using a zoom lens on a camera. Using any of the View commands does not change the actual size of any objects in the diagram, it only changes how they are displayed on the screen. If an object was drawn to be 20' long and you perform a Zoom Window around it, the object will appear larger on the screen, but it will still be exactly 20' long.



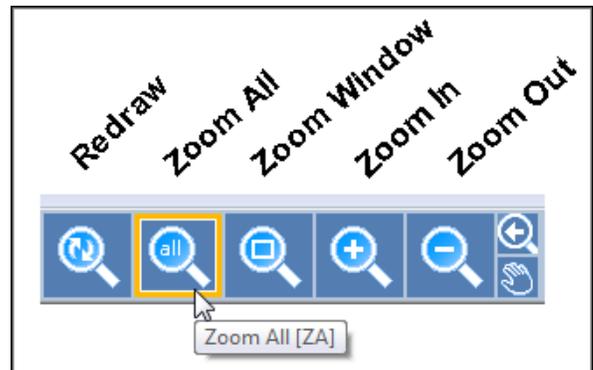
All of the View Commands can be selected from the View pull-down menu. The most commonly used View Commands can also be selected from the Speedbar, the toolbar that runs across the top of the drawing window. These include:

Redraw – Use this command to refresh the screen. If you do some editing and deleting and it looks as if objects have been partially erased, don't panic, just do a Redraw!

Zoom All – Click this button to make the entire diagram fit onto the screen.

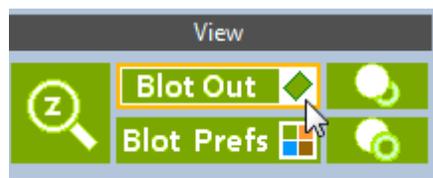
Zoom Window – This command lets you use your mouse to draw a window around some details in your drawing. The view of that window is then expanded to cover the screen.

Zoom In and **Zoom Out** - Use these commands to change the view of the diagram to be incrementally larger or smaller with each click.

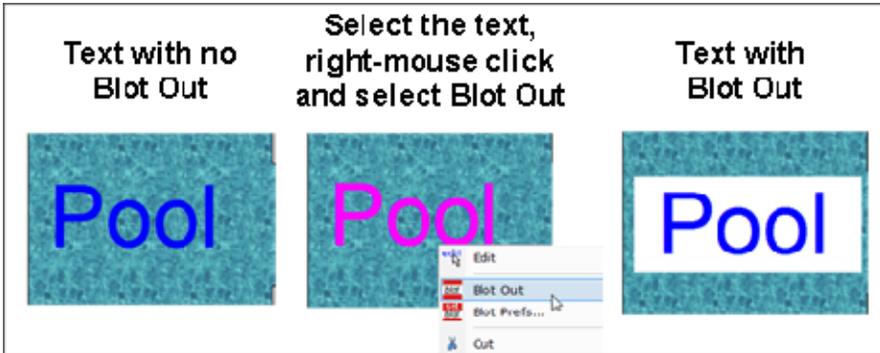


Blot Out and Blot Preferences

Blot Out is a feature that makes it easy to highlight text, symbols, arrows, and other objects by "blotting out" the objects behind. Blot Out is especially helpful to highlight text drawn on top of an aerial image or a texture.

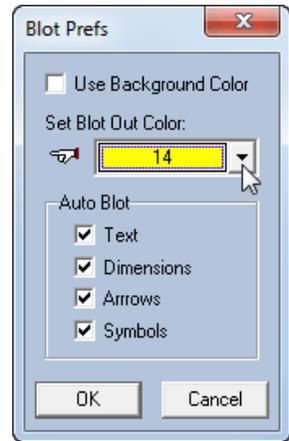


To apply Blot Out to a selected object, click the Blot Out icon in the View section of the left-hand toolbox. You can also position the mouse pointer on the selected object, *click the right-mouse button*, and then select Blot Out from the menu that appears. Clicking the right-mouse button brings up a menu of commonly-used commands, including Blot Out and Blot Preferences.

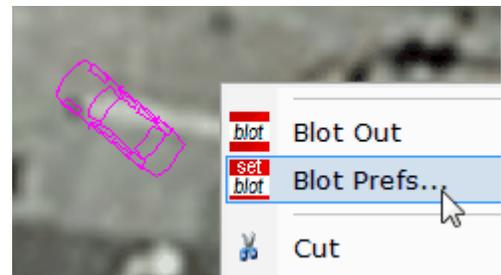


The “Blot Preferences” command lets you change the settings used with Blot Out for new objects to be drawn. You can select whether to automatically apply “Blot Out” to all future text, dimensions, symbols, and arrows. You can also select whether to always use the diagram background color for blots or select a specific blot color from a pull-down list.

Tip: By default, “Blot Out” is automatically applied to text, dimensions, arrows, and symbols. This means when you first start using Quick Scene, whenever you place one of these items, the image behind it will be blotted out. Select Blot Preferences and uncheck any of these entities if you do not want to apply a blot to that entity.



Tip: Changing the Blot Preferences will only affect *new objects* you draw. It does not change how a blot was applied to an entity already placed in the diagram. To change the Blot preferences on an existing entity, click on it to select it and then click your *right-mouse button* to bring up a menu of commands. Select “Blot Out” to remove the blot completely or select “Blot Prefs” to change the blot color.



Creating a Quick Crash Scene

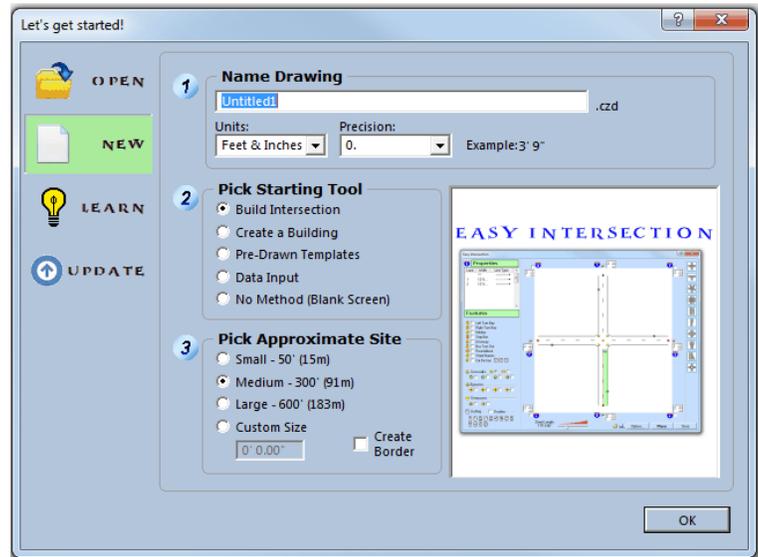
With Quick Scene, even new users can create a diagram in less than 10 minutes! In this tutorial we'll show how to use Quick Scene's unique features like Templates and Easy Intersection to draw a crash scene faster than you thought possible. The completed diagram is shown at the end of this tutorial.

When you first open Quick Scene the Let's Get Started screen appears. From this screen you can Create a New Diagram using several different tools, Open an Existing diagram, or go to the Learning Center.

The Learning Center contains links to help topics, tutorials, and movies that explain how to use the various features in the program.

We will start this tutorial by creating a new diagram and drawing a specific intersection with the Easy Intersection toolbox. This special toolbox lets you quickly add details to your intersection like number of lanes, cross-walks, turn lanes, bus turn outs, and so on.

Later in the tutorial, we will see how to select common intersections from the many pre-drawn templates included in Quick Scene.

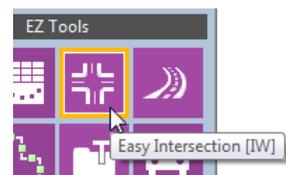


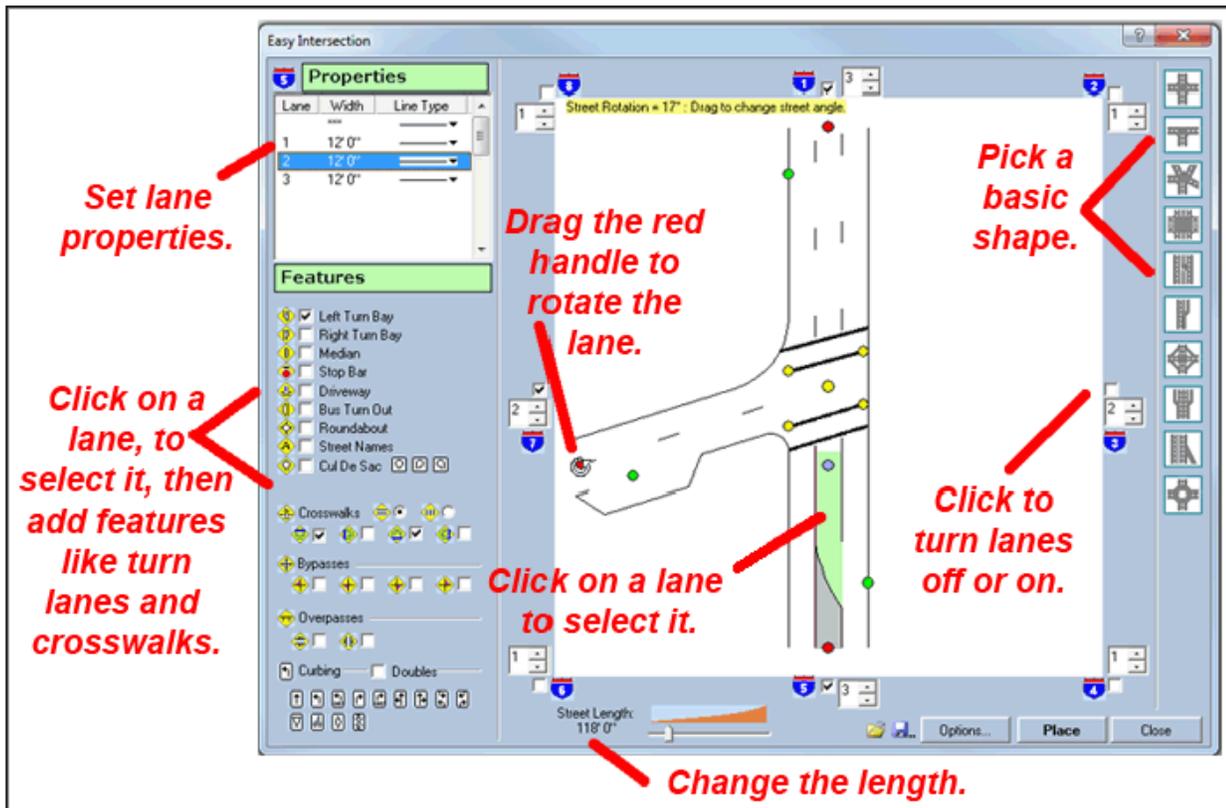
1. Click the “New” button to start a new diagram.
2. Click in the “Name Drawing” text box and type in a name, like: Crash Sample
3. You can change the units for your diagram, if desired. This tutorial uses units of Feet & Inches.
4. For the “Starting Tool”, select “Build Intersection.”
5. For the “Approximate Site” size, select: Medium 300’.
6. Click the “OK” button to start the diagram with these settings.

Creating an Intersection

The Easy Intersection toolbox is now displayed. Easy Intersection allows you to quickly create an intersection by choosing the location, angle, number of lanes, and other details of each road segment.

Tip: You can also select Easy Intersection from EZ Tools on the left-hand side of the screen. The EZ Tools group contains many commands that help automate tasks like drawing an intersection, placing a building outline, filling an area with a pattern or texture, and placing symbols.

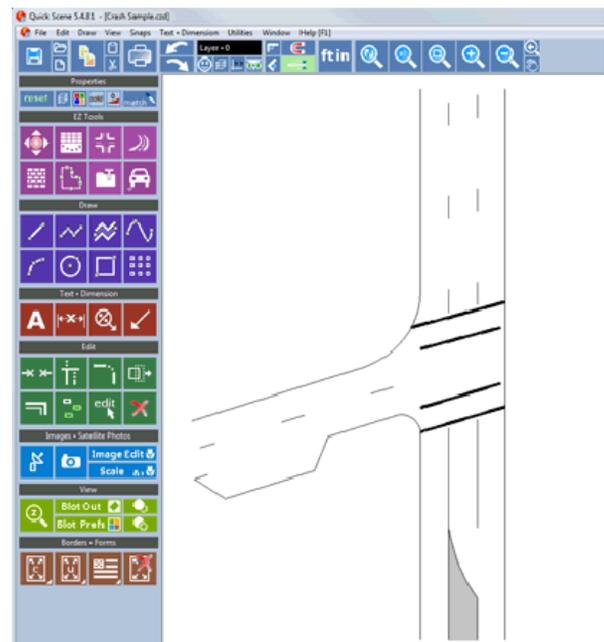




Each road segment has a check box and a number of lanes with up/down arrows. You can adjust the number of lanes in just that segment, or click in the box to “uncheck” it to turn that segment off completely. As you make changes, you’ll see the intersection being built in the preview window.

You can also adjust the angle of any of the road segments. Move your mouse pointer over the red rotation handle of a segment and notice it changes to a round arrow icon. Press and hold down the mouse button and drag that road segment to adjust its angle.

Use the Options button, in the lower-right corner of the toolbox, to set several options that affect all the road segments in the intersection, such as the Lane Width and the maximum length of the road segments. This dialog box also lets you set the Fillet Radius used to round the corners of the intersection and the line type to be used for Center Lanes.



To create the intersection, make these changes in the Easy Intersection toolbox:

1. Decrease the length of the road segments by moving the “Street Length” slider to the left.
2. Click in the box by lane 3 (horizontal, to the right) to uncheck it and turn it off.
3. Use the up-arrows to increase lanes 1 and 5 to have three lanes.
5. Grab the red handle on lane 7 and drag it to a new angle.
6. Click in lane 7 and add a bus turn out (under Features, on the left side of the toolbox).
7. Click in the center lane of lane 5 and add a left turn bay (under Features, on the left side of the toolbox).
8. Add crosswalks to lanes 1 and 5.
9. When you are satisfied with the intersection, click on the Place button to place the completed intersection on the drawing screen.

Save the Diagram

It's a good idea to save your diagram frequently, to ensure you never lose any work. Quick Scene automatically creates a back up copy of your diagram while you work, so you can open it if you can't find a file or if you forget to save.

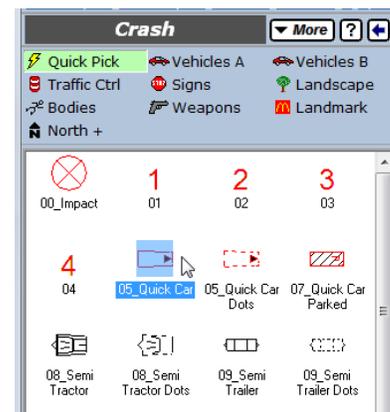
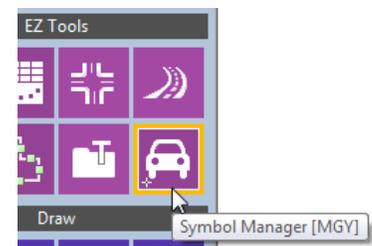
1. Click the Save icon on the top toolbar to save the diagram to the hard disk of your computer.



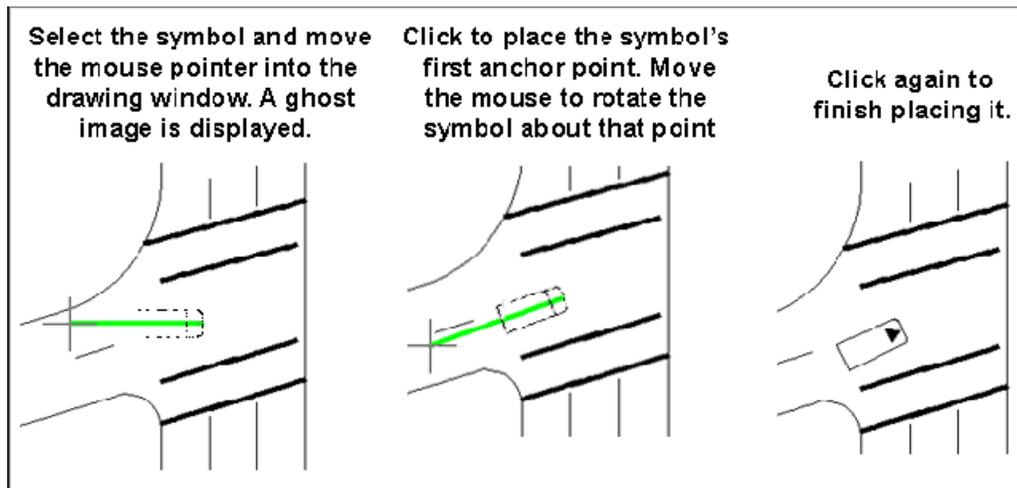
Placing Symbols

Next, let's add some symbols to show the position of the vehicles involved. Quick Scene includes hundreds of predrawn symbols with a special Symbol Manager toolbox that helps you find the symbols you need and place them at the desired size, rotation, and color. All the symbols are arranged in categories, such as Vehicles Signs, Traffic Control, Signs, Weapons, Landscape, and so on. In addition, many of the categories, such as Vehicles, have subcategories to further organize them.

1. Select the Symbol Manger icon from the left Toolbox.
2. Select the Quick Pick symbol category.
3. Click on the Quick Car symbol to select it.
4. Position your mouse pointer where you want the front of the first vehicle and click. If you make a mistake, just press the Esc key on the keyboard and you can place the symbol again.
5. Move your mouse and notice that you can rotate the symbol to any angle. Click again when it has the desired angle.
6. Click again to finish placing the symbol when it has the desired rotation.



Tip: The Symbol toolbox stays on the screen so you can quickly place all the symbols you need. When you are finished placing symbols, click the “Back” button at the bottom of the Symbol Manager to return to the main toolbox.



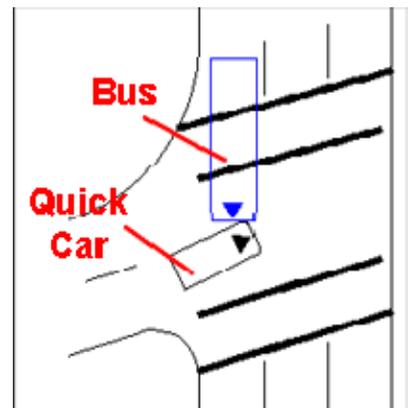
There are options at the bottom of the Symbol Manager that allow you to mirror a symbol, change its size and change its color. Next, let’s place a bus symbol and change its color to blue.

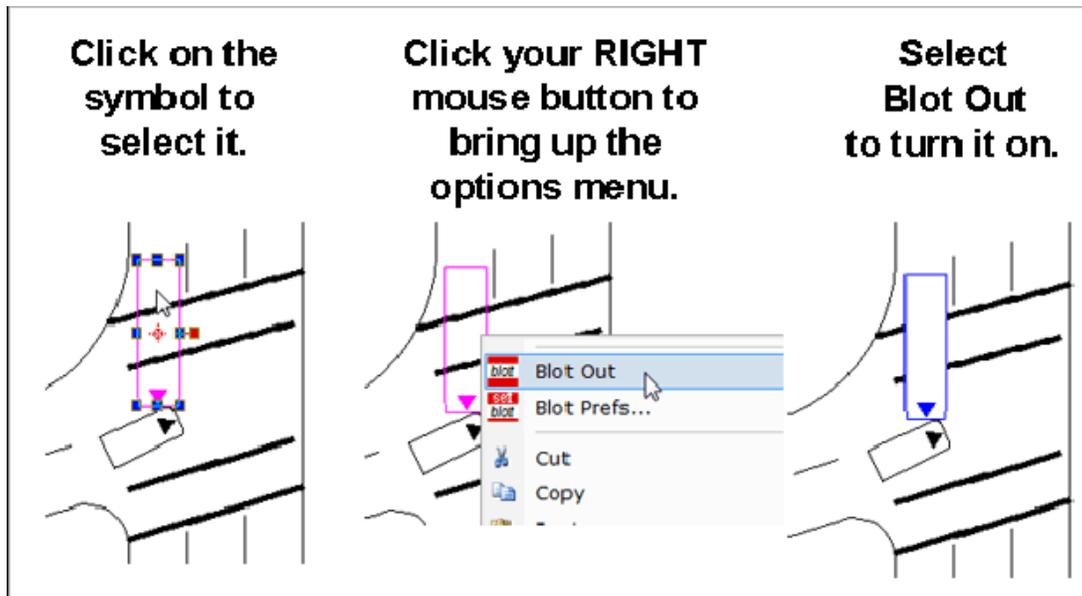
7. Click on the 10_Bus symbol to select it.
8. Click the “Set Symbol Color” icon and select a color of blue for the bus.
9. Place the bus in the diagram, using the method explained above.



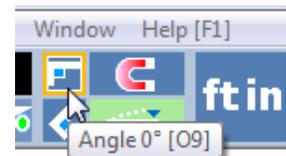
If you don’t like the lines of the crosswalk running through the bus, you can use the “Blot Out” feature to cover them up.

10. Put your mouse pointer inside the bus symbol and click the LEFT mouse button to select the symbol. The bus turns pink and has blue “handle points” to show it is selected.
11. Next, click your RIGHT mouse button to bring up a menu of options you can apply to the selected symbol.
12. Click on “Blot Out” to turn it on for this symbol.



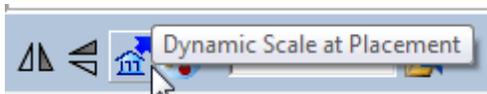


Tip: If you want to place a symbol or other object so it is exactly horizontal or vertical, click on the “Angle 0°” icon on the top-toolbar (just under the pull-down menus). This feature restricts the mouse so it can only move horizontally or vertically. Click it again to turn it off when you no longer want that restriction.

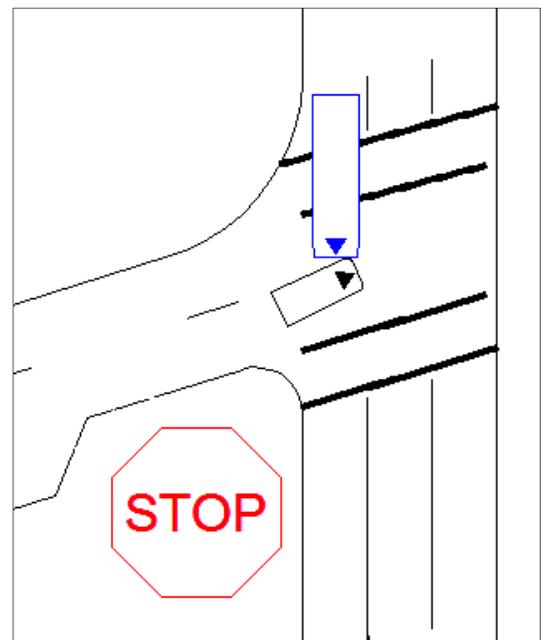


Next, we'll place a stop sign, again from the Quick Pick folder.

13. Select the Stop Sign symbol from the Symbol Manger.
14. Since we changed the previous symbol's color, this setting may still be applied. Click on the Symbol Color option (on the bottom of the toolbox) and the color should change back to the default color of red.
15. Click the Dynamic Scale button (on the bottom of the Symbol Manager toolbox) to turn this option ON.



11. Now click once in the diagram to anchor the symbol. As you move your mouse you can make the symbol larger or smaller, as well as rotate it about the anchor point. When you are satisfied with how the symbol looks, click again to finish placing it.



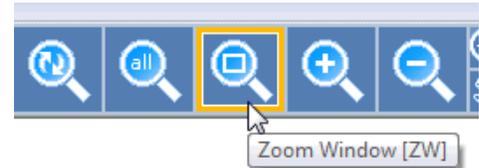
Tip: If you don't like where an object has been placed, like the stop sign, simply click on it to select it, then hold down the mouse button and drag the object to a new location.

If you want to label the car and bus symbols, you could use the Text command, but an even faster way is to use the numbers that are included as pre-drawn symbols.

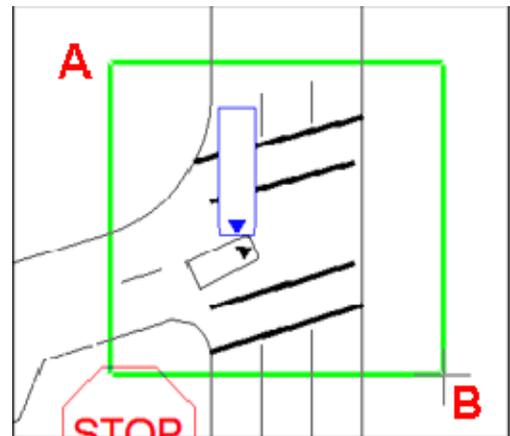
Change the View and Number the Vehicles

First, let's zoom in on the area around the vehicles so we can have better view to place the labels. Icons for the view commands are located on the top-toolbar, just under the pull-down menus.

1. Select Zoom Window icon from the top-toolbar.
2. Click the mouse pointer above, and to the left of the vehicles, near Point A in the following figure.
3. Move the mouse pointer down and to the right of the vehicles and click again near Point B.



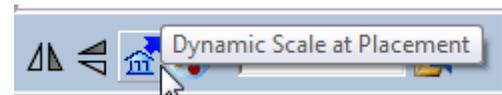
The display should now show an expanded view of the intersection, showing everything that you enclosed in the window. You will frequently use the View commands, like Zoom Window, to make it easier to place symbols and see the details of your diagrams. Use the Zoom All command to display the entire diagram.



Tip: Zoom commands are like using the zoom lens of a camera. The size of objects in the diagram is not changed, only your perspective.

Now we are ready to place number symbols:

4. Click the Dynamic Symbol Scale icon (on the bottom of the Symbol Manager) to turn it OFF.



5. Click on the "Angle 0°" command on the top-toolbar to turn that feature ON. When Angle 0° is turned on, your mouse will be restricted to only move horizontally or vertically. This makes it easy to place text that is exactly horizontal.

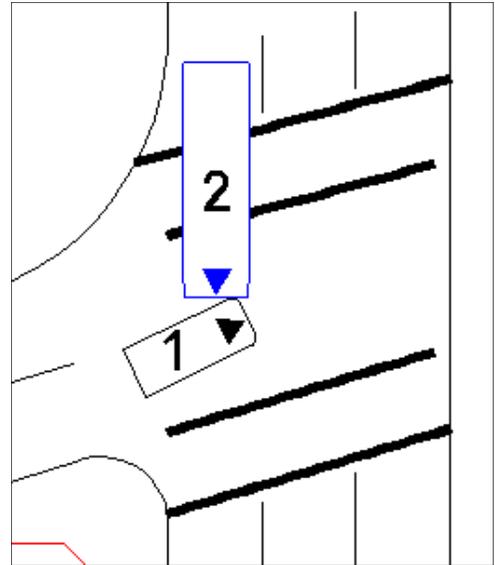
Tip: You know Angle 0° is turned on when the icon has a green background. Click the icon again to turn it off.



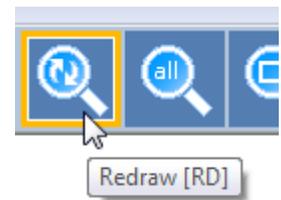
6. Select the 1 symbol from the Quick Pick folder and place it on the car.
7. Select the 2 symbol and place it on the bus.

Take some time to explore the symbol categories available on the Symbol Manager and place additional symbols in your diagram. You may want to place some more signs, landscape symbols, and a North Arrow. Experiment with colors and the Dynamic Symbol Scale feature to make the symbols look exactly the way you want them.

8. Click the Back button on the bottom of the Symbol Manager to return to the main toolbar.



Tip: If your screen doesn't look quite right or appears to have stray marks on it, just click the Redraw button at the top of the screen to correct it. You will frequently want to use Redraw to refresh the view when you move or rotate objects.



This is a good time to save your diagram! Get in the habit of saving frequently.

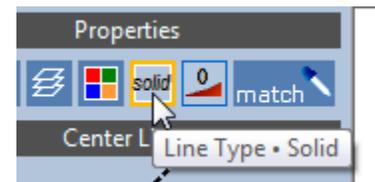
9. Click the Save icon on the top toolbar to save the diagram to the hard disk of your computer.

Draw the Skid Marks

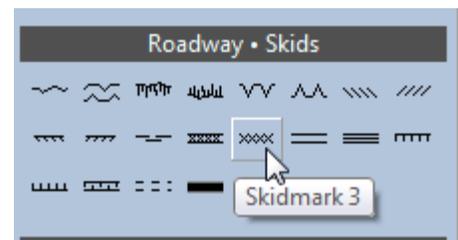
Quick Scene has tools for drawing lines, continuous lines, arcs, curves, circles, and rectangles. You will use these tools to draw anything unique to your scene that can't be shown with a symbol. You can also apply different properties to any of these basic objects, such as color, line width, and line type. Line types can be solid, centerline, or dashed, and they can be used to show more complex shapes like fences, guard rails, and railroad tracks.

In this tutorial, we will use the Line command to add skid marks to the diagram with a specific skid linetype. We will start by selecting the line properties.

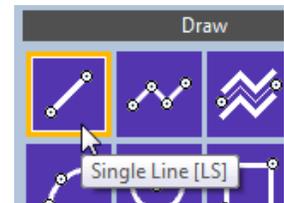
1. From the Properties section of the left-hand toolbar, click on the Line Type button. It may say "Solid" on it, since that is the default line type.
2. Click on the Skidmark 3 line type to select it.
3. Click the Back button to return to the main toolbar.



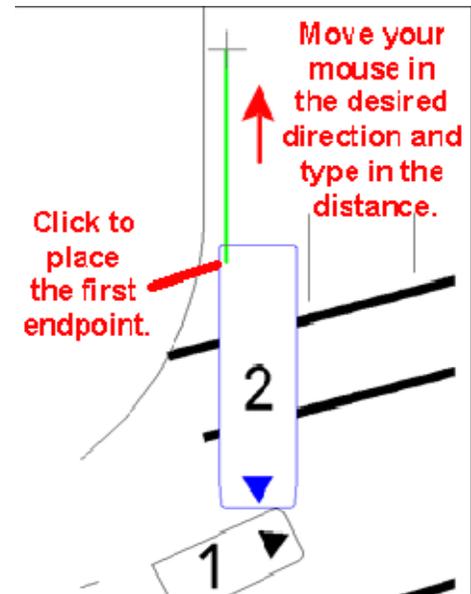
Any *new* objects you draw will be drawn with this line type, until you select a different line type.



- Click the the “Angle 0°” command on the top-toolbar to turn that feature OFF.
- Select the Single Line command from the Draw toolbox on the left.

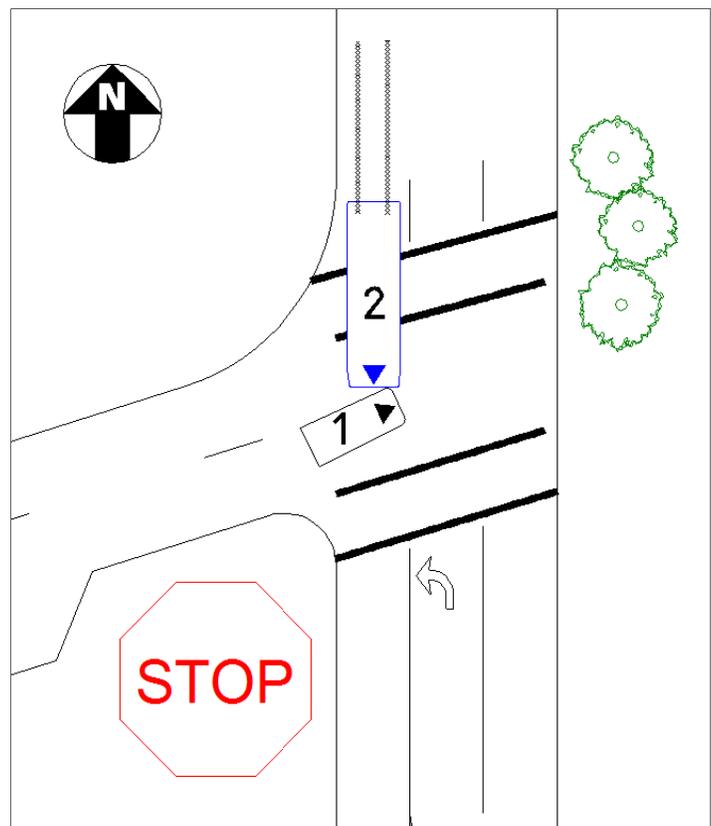
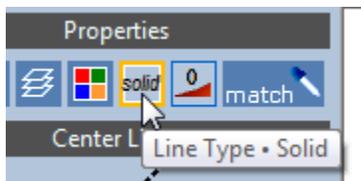


A line is drawn by clicking any two points in the diagram. You can also draw a line to an exact length by using the “Direction - Distance” method. You click to place the first endpoint of the line, move your mouse in the direction of the line and, instead of clicking to place the second endpoint, type in a distance. We will use this method to draw the first skid mark for the bus.



- Click at the rear of the bus to place the first end point of the skid mark.
- Move the mouse parallel with the edge of the street to show the direction of the skid. Do not click!
- Type 28' and press the Enter key. This draws the skid mark to be exactly 28' long.
- Repeat steps 5 through 7 to draw a second skid mark for the other wheels of the bus. Alternatively you could use the Copy command to make a copy of the first Skid and place it in line with the other wheels.

- Select Properties from the left-hand toolbox and change the line type back to Solid when you are finished drawing skidmarks.

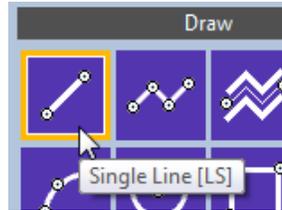


Here is how our drawing looks so far:

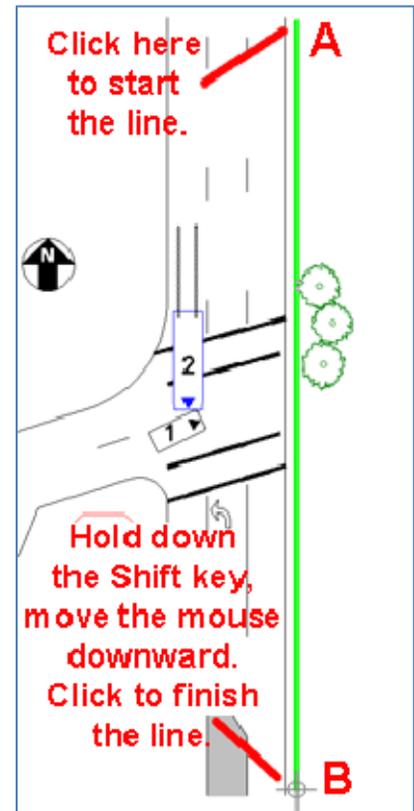
Applying Other Line Types

You can apply a Line Type to any line, arc, curve, rectangle, or circle that has already been placed in the diagram. For example, you can change line types of the centerlines in the intersection or apply a fence or guard rail Line Type to an existing line.

Let's draw a line beside the three-lane street and change it to a guard rail.



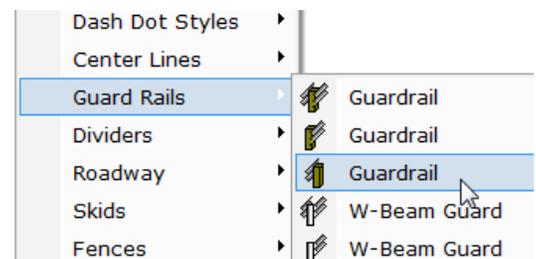
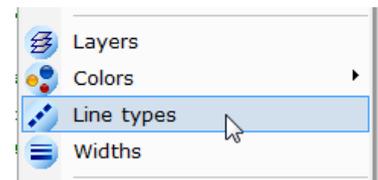
1. Select the Single Line command from the Draw toolbox on the left
2. Click to the right of the upper endpoint of the three-lane street, point A in the figure.
3. Hold down the Shift key on your keyboard. This temporarily restricts the mouse so it can only move exactly horizontal or vertical. (You could also use the Angle 0 command to do the same thing.)
4. Move the mouse downward and you can see a ghost image of the line stretching out from the original point you clicked.
5. Click again and let up on the Shift key to finish the line.
6. Once the line is complete, click on it to select it. The line changes to pink to show it is selected. It will also have blue "handles" that you can drag to change its length.



Tip: You can select an individual object by clicking on it. You can select multiple objects by placing a window around them. If you drag the selection window from the upper left downward to the lower right, all the objects that are *completely enclosed* in the window will be selected. If you drag the selection window from the lower right upward to the upper left, all the objects that *are enclosed or cross through* the window will be selected.

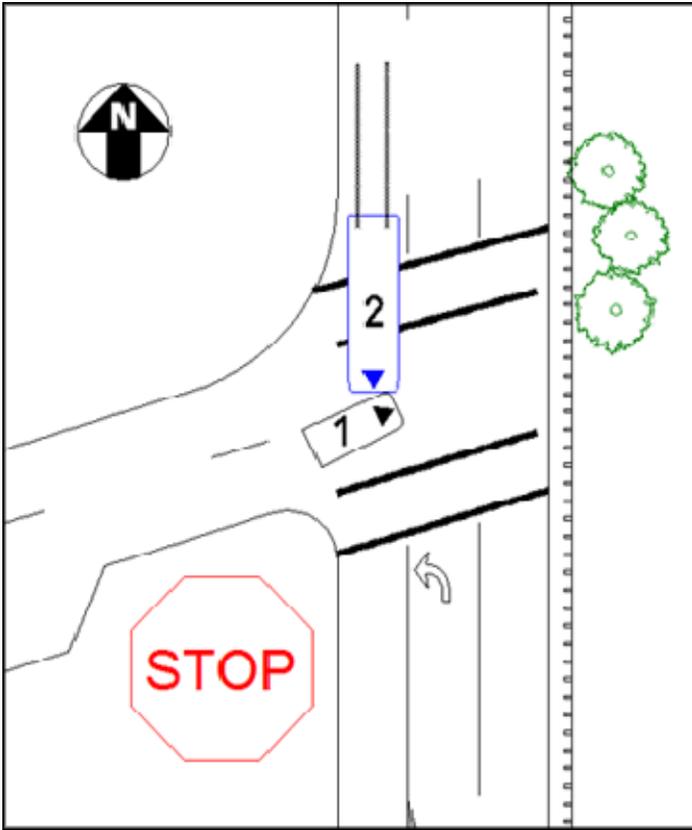
The next step is to apply the desired line type to the selected line. You can select a line type from the Properties section of the left-hand toolbar (as used above for the skid marks) or you can use the "right-click menu."

7. With the line selected, click your right-mouse button. This brings up a menu of options that can be applied to the line.
8. Select Line Types from the menu.
9. Put your mouse pointer on Guard Rails to see all the possible Line types.
10. Click on one of the Guard Rail line types to apply it to the line.



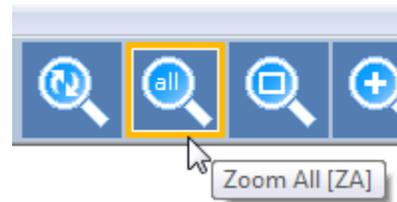
Quick Scene

The CAD Zone, Inc. – 4790 SW Watson Ave, Beaverton, OR 97005
800-641-9077 www.cadzone.com



To display your entire drawing on the screen, type ZA (for Zoom All).

You can also select the Zoom All command from the top toolbar.

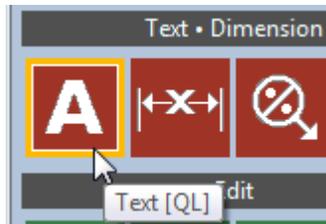


Here is how the drawing looks with the guard rail

Place Text Labels

Next we'll use the Text feature to label the streets and place a basic dimension.

1. Select the Text feature from the Text-Dimension portion of the left-hand toolbox.



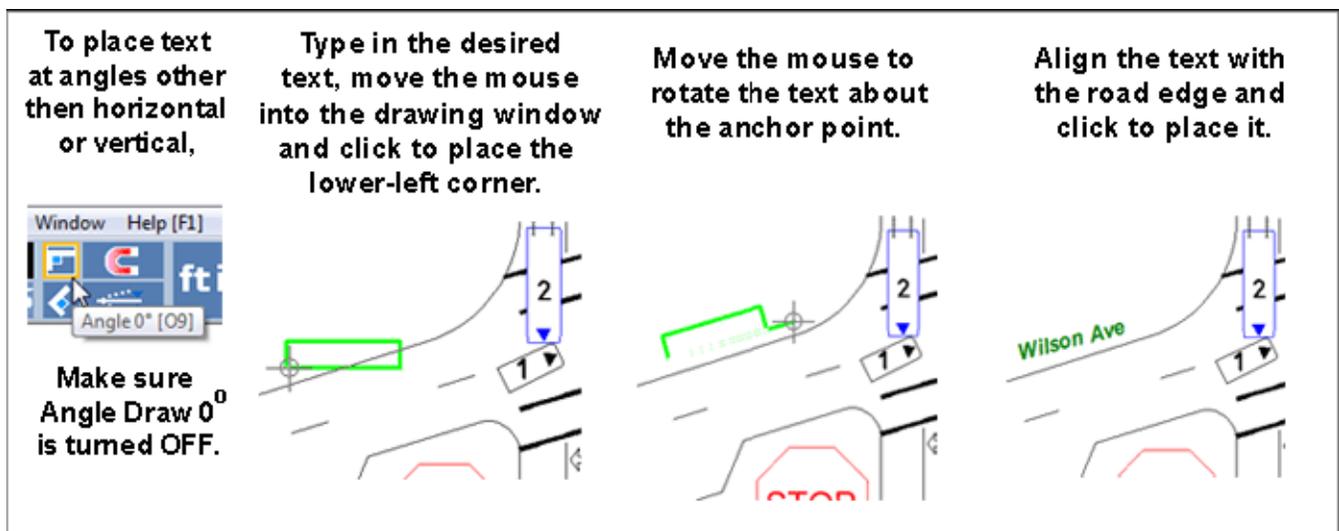
A new toolbox is displayed on the left where you enter the desired text and choose all the settings that determine how the text looks.

2. Click once inside the "Enter Text" box and type in the desired text: Wilson Ave (do not press the Enter key).
3. Move your mouse pointer back into the drawing window and notice an outline box that represents the size and rotation of the text.
4. Change the text height by clicking on the large "A" or small "A" text buttons. Alternatively, you can type a value in the box for the text height. For this example, set the text height to 5'.



5. Try the other Text options, for example, change the text color to green and change the font, or make it bold or italics.
6. Move the mouse pointer back onto the drawing screen and notice a box attached to the mouse pointer that represents the text.
7. Position the mouse pointer above the two-lane street and click. This anchors the lower-left corner of the text at that point.
8. Move your mouse and notice the text rotates around this anchor point.
9. Move your mouse to the right so the text box is parallel to the street edge and click again to finish placing it.

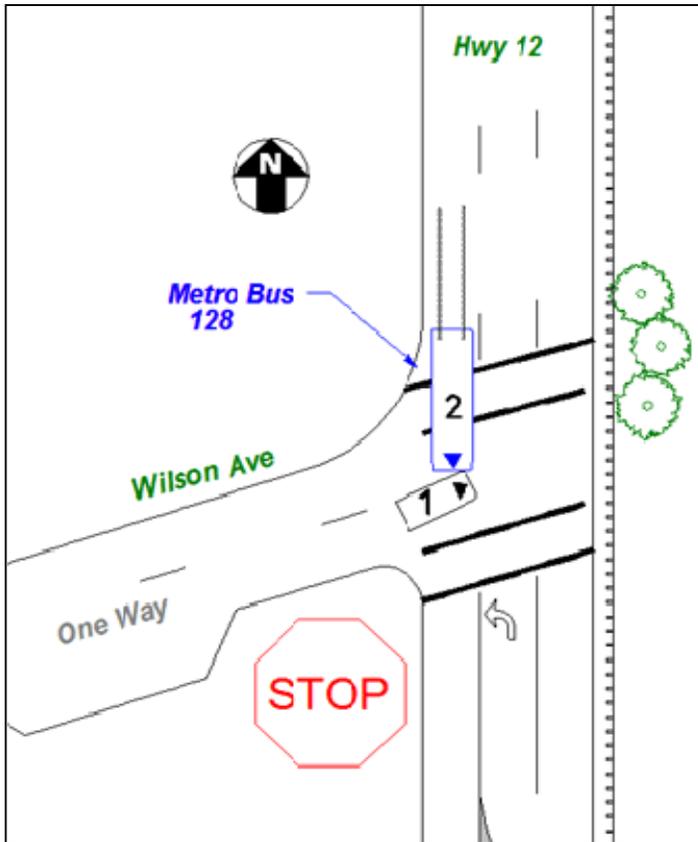
Tip: If you notice that the text can only be placed exactly horizontally or vertically, it means the Angle 0° mode is turned on. Click on the Angle 0° button, on the top toolbar, to turn it off and try rotating the text box again.



The Text dialog box stays open so you can continue placing other labels. Repeat steps 2 through 9 to place additional text in the diagram, such as the name of the other street and details about the vehicles. You can also click on any of the “Pre-defined Labels” on the Text dialog box as a quick way to place that text, such as One Way, and Stop Sign. Use the Add Label button to add your own text labels to the list of Pre-defined Labels.

10. To add the “Metro Bus 128” label, click the “Show Arrow” option and add an arrow with the label. The first point you click places the tip of the arrow.
11. Click the “Back” button on the Text dialog box when you want to stop placing text.





Your diagram should now look like the one in this figure, including the new text we just added.

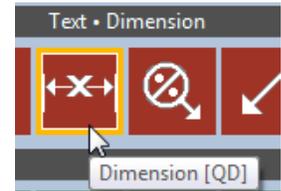
Tip: If you delete a text label or a dimension, it may look like a large area of the diagram has been erased. Just use Redraw to refresh the diagram.

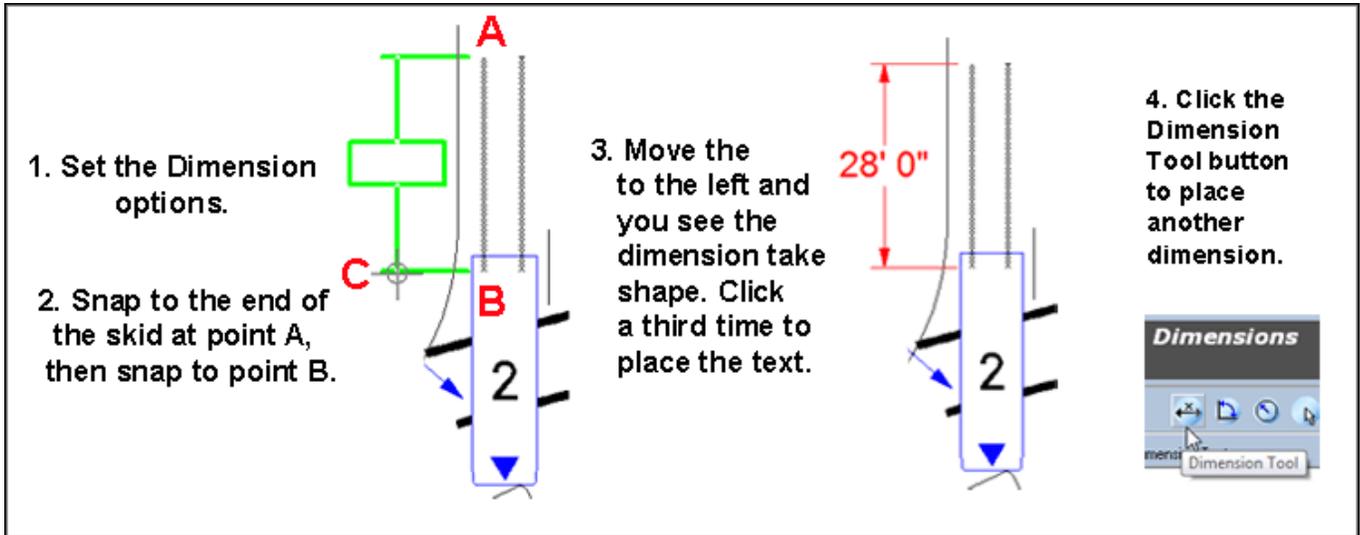


Place Dimensions

Quick Scene has tools for placing linear, angular, and radial dimensions in your diagrams. You access all of the dimension tools and settings by selecting the Dimension icon on the left-hand toolbox. We will add a dimension to show the length of the bus skid marks.

1. Click the Dimension icon on the left-hand toolbox to bring up the Dimensions dialog box. This dialog box has all the settings you can apply to make dimensions look the way you want them.
2. Change the text height to 4', the color to red, and the direction to "Aligned."
3. Use Zoom Window to zoom in closer to the bus.
4. Click on the Auto Snap icon on the top toolbar (the magnet) to turn this feature ON. When Auto Snap is on, your mouse will snap exactly to an endpoint of a nearby line.
5. Click on the top endpoint of the line we drew to show the skid mark. Since Auto Snap is turned ON, the endpoint is selected exactly.
6. Move the mouse downward and click on the other end of the skid mark.
7. Move your mouse to the left and you'll see the dimension take shape, with a box that outlines the text.
8. When you are satisfied with the position of the text, click a final time to place the dimension.

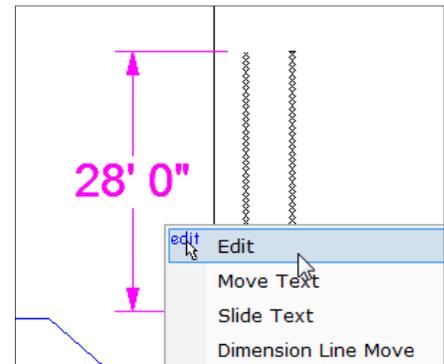




When you place a dimension, Quick Scene calculates the exact measurement between the two points. Since we used the Direction-Distance method to draw the line for the skid mark, the dimension measures it as 28'. It's also possible to override the value calculated for a dimension. This may be helpful if you draw a sketch without using any particular measurements.

You can edit a dimension to change the dimension text, as follows

1. Click on the dimension to select it.
2. Click your RIGHT mouse button to bring up a menu of options and choose Edit. This displays the Dimension dialog box.
3. Click in the "Set Dimension Text" box and type in the value you want.
4. Click "Apply" to complete the change.



There are other options on the "right-click" menu that you can use to change how your dimensions look in the diagram. For example, if you place a dimension and the text appears too crowded, you can move it to a new position. Click on the dimension to select it and click your *right* mouse button to bring up the options. Use the Move Text feature to move the text away from the arrows, or select Slide Text to slide it along the dimension line.

5. Click the "Back" button to close the Dimension dialog box and return to the main toolbox.
6. Select Zoom All from the top toolbar, or type ZA, to display your entire diagram on the screen.

Printing Your Diagram

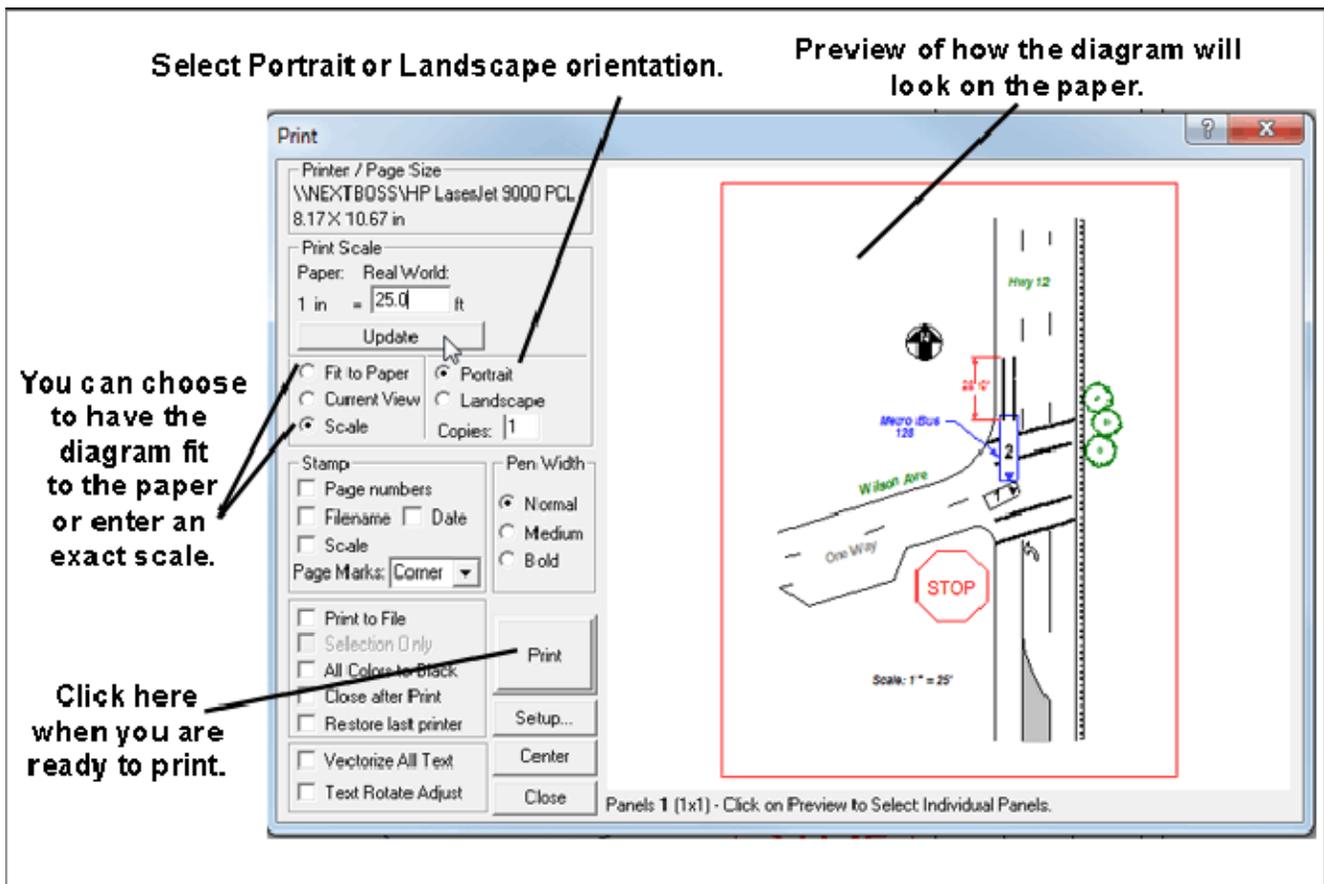
To send your diagram to a printer, use the Print command found on the File menu or select the Print icon from the top toolbar. With this command, you can set many options that control how the diagram will be printed.

1. Select the Print command from the top toolbar, or by choosing it from the File pull-down menu.



The default Print settings use a portrait paper orientation and automatically scale the diagram to fit on the paper. You can always enter a specific print scale if you want to print the diagram at an exact size so you can take measurements off the paper print of the diagram.

1. Use a Portrait paper orientation so this diagram fits better on the paper. This setting will be different depending on the shape of each diagram.
2. If desired, adjust the print scale by entering a value on the Print toolbox. In this example, we checked the “Scale” option, entered a value of 1” = 25’, then clicked “Update” to update the preview window.
3. When the diagram appears the way you want it in the preview window, click on the Print button.



Normally, when you draw in Quick Scene, you draw everything to actual measurements. There is no need to “scale” anything to get it to fit in Quick Scene. When you draw an intersection with Easy Intersection and place vehicle symbols, they will measure to the size those objects have in the real world. It is only when you want to print a diagram does it have to be scaled down to fit onto a sheet of paper.

By default, the Print dialog box is set up to print the diagram with the “Fit to Paper” option. This means the program calculates the best scale to use based on the size of paper you have selected. In this figure, we chose the “Scale” option and entered an exact scale of 1” = 25’. By entering an exact scale, it makes it easier to take measurements from the printed diagram.

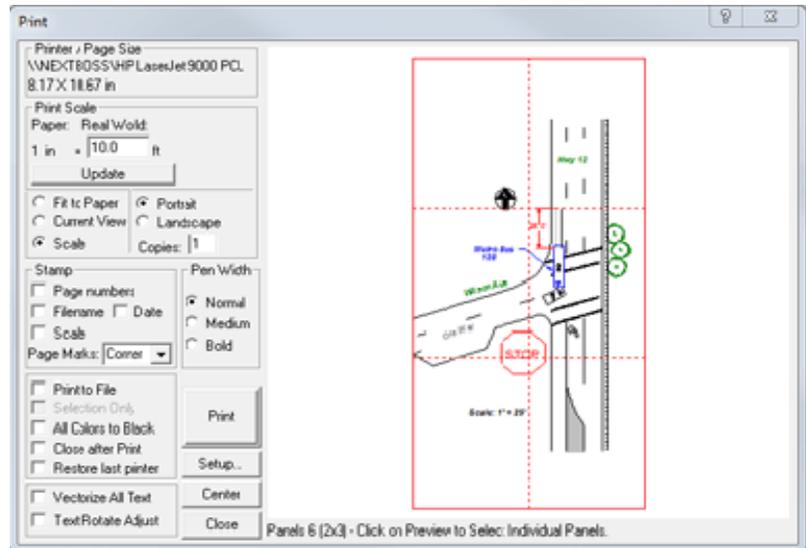
Using a Specific Scale

If you want to use a specific scale that is a smaller value than the one calculated for “Fit to Paper,” the diagram will no longer fit on one page. In this case, the drawing is “tiled” by splitting it across multiple sheets. Each sheet of paper in the preview window is shown by dashed, red lines. You can use your mouse in the preview window to drag the drawing so it fits differently on the pages.

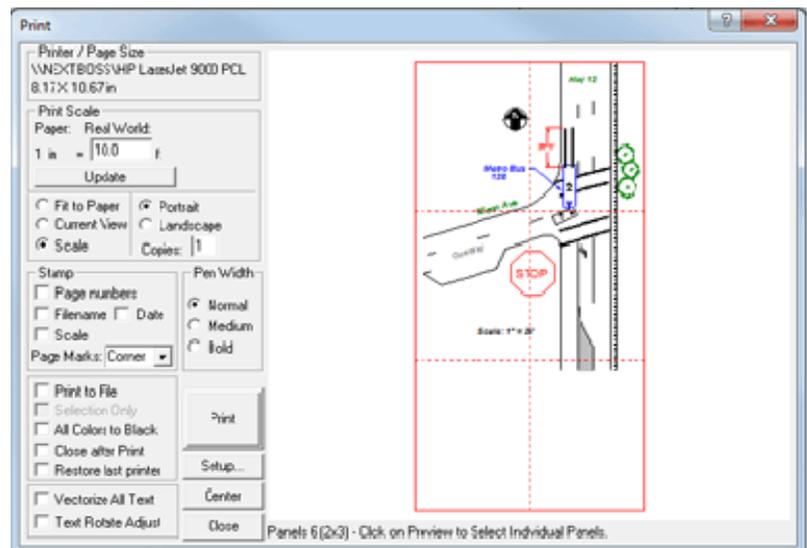
Let’s see how Print Tiling works with our tutorial drawing.

1. Open the Print dialog box.
2. Make sure the Scale option is selected.
3. Enter a Real World scale value of 10’ so the scale is 1” = 10’.
4. Click “Update.”

The preview window shows 6 boxes, outlined in red. These represent the pages across which the diagram will be tiled.



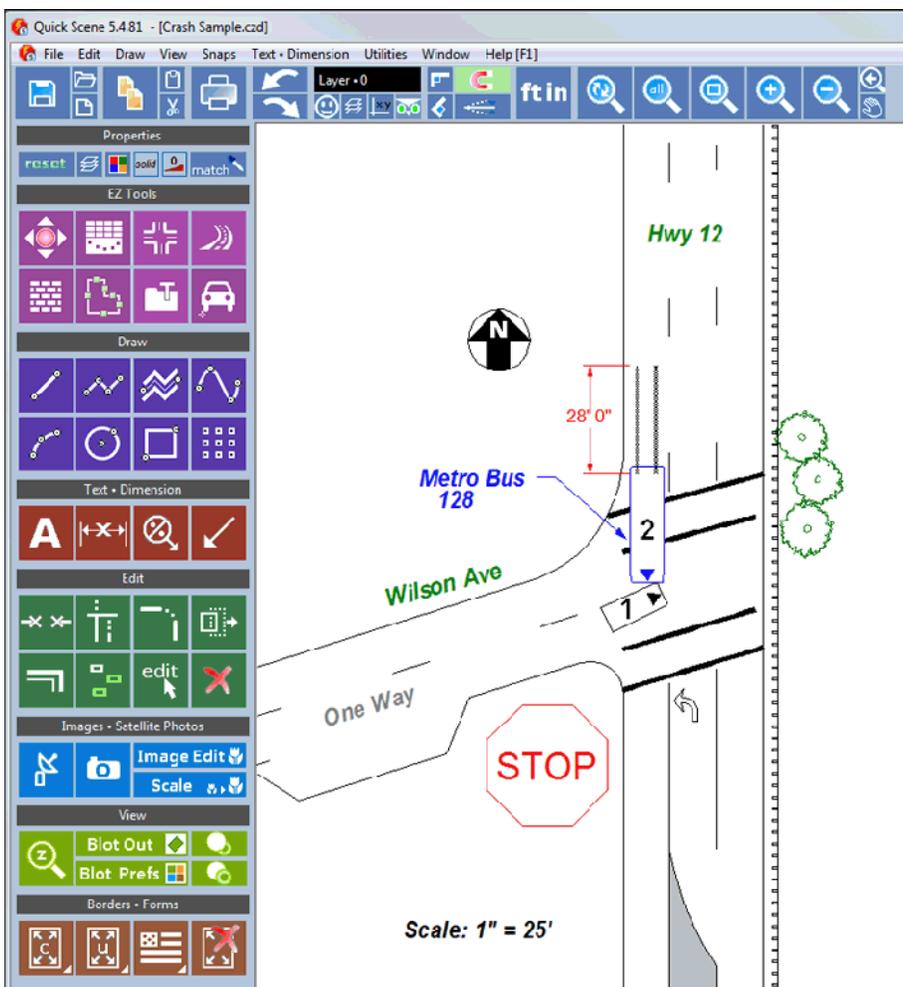
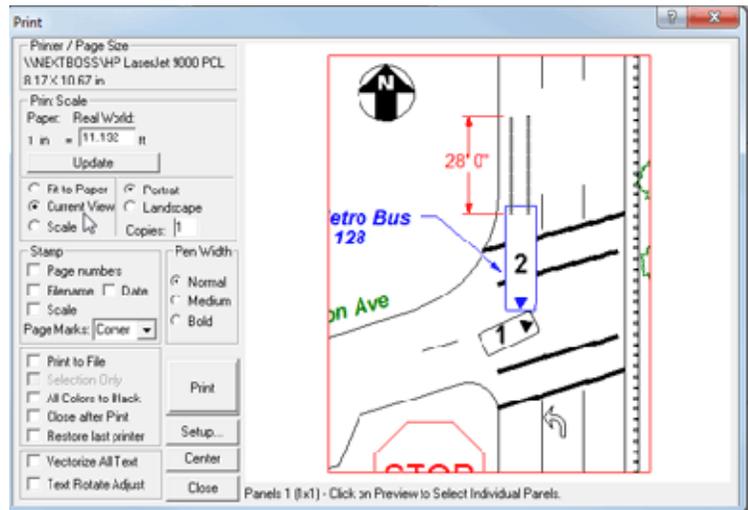
5. Place your mouse pointer on the diagram in the preview window and hold down the mouse button.
6. In the figure shown, we used the mouse to drag the diagram so the scene is centered in the top four tiles. You can place the diagram on any of the pages to optimize how it prints.
7. Click Print to print the diagram on the pages shown.



Printing a Specific View

You can also choose to print a specific view of a diagram, such as a zoomed in view of some details. Use the View commands to get the view you want on the screen first and then open the Print dialog box.

1. Use the Zoom Window command to zoom in on the lower-left corner of the building.
2. Click the Print button to bring up the Print dialog box.
3. Click the option to print "Current View."
4. Click the Print button to print just that view.



In this example we demonstrated how to construct a simple sketch of a crash scene, including drawing an intersection, placing symbols, drawing skid marks, placing text, and placing dimensions. Now you can apply these techniques to create your own diagrams, making them as simple or as detailed as you wish.

Congratulations! You have just completed your first diagram with Quick Scene!

Quick Scene

The CAD Zone, Inc. – 4790 SW Watson Ave, Beaverton, OR 97005
800-641-9077 www.cadzone.com