Introduction
This general guidance document is written for using the Internet Explorer browser. Functional differences exist in some of the other browsers and these are summarized in the Other Browsers document linked in the MAPGUIDE HELPS portion of the Tasks Pane.

NOTE: If you are using Internet Explorer 8 or 9 as your browser, please read the Compatibility View document just above the MAPGUIDE HELPS portion of the Tasks Pane.

By using the various tools in this map you can zoom in and out, find specific features, select features that meet certain criteria, display information about selected features, print the current view of the map, and more.

Several of the tools require that pop-ups be allowed. You can allow pop-ups for the COGCC website by clicking the Tools dropdown list: Tools > Pop-up Blocker > Pop-up Blocker Settings

In the Pop-up Blocker Settings window Add http://cogcc.state.co.us/ as an allowed site for pop-ups.
1. The Layers Pane (left panel) displays the layers and layer groups in the map. The layer groups can be expanded to display the individual layers, or they can be collapsed. To expand a layer group, click the + sign to the left of folder and to collapse the group, click the – sign.

2. The Map Pane (center panel) displays the map at various user chosen scales with features displayed dependent upon the layers selected from the Layers Pane. As the map is zoomed in to larger scales, more layers become available for viewing.

3. The Task Pane (right panel) displays a message with a Compatibility View link and in the MAPGUIDE HELP section there are links to Disclaimer, Map Layer Info, Map Tools, Other Browsers, FAQs, and GIS Contacts documents.

4. The upper tool/function bar includes various commands and tools to query data, navigate, print, measure and add features to the map. To adjust the cursor function click the various buttons on the toolbar. The selected function of the cursor will remain until another button function is selected. See more detailed instructions starting after #5 below.

5. The lower informational bar
   - tracks the UTM coordinates of the cursor,
   - lists the number of features selected (see Selection Results below),
   - shows the map scale (see Zoom below to adjust the scale) and
   - lists the dimensions of the map in feet or miles.
Double Click

Several of the map features will display pop-up information windows by left double clicking the feature. Using the select mode arrow cursor this function can be used on:

- The red Wells dots or purple or light-green BHL dots to bring up the well scout card.
- The light blue Spacing layer to bring up the Spacing Orders summary for the selected section.
- The green Pits symbol to bring up the Pit Information card.
- The green O&G Locations symbol to bring up the COGIS-Location Information card.
- 2D and 3D Seismic Permits to bring up the link to the Seismic Index Search window.
- The light blue DWR_Wells (water wells) symbols to bring up the Division of Water Resources link to the water well permit application.
- A Soil Survey area will link to the NRCS soil summary website.

Arrow Tip Information

Pausing the arrow cursor over some layer features will yield a map-tip window which contains information about the feature. It may take pausing for several seconds for the map-tip window to appear. The window will display for most layer features within the map.

Busy Indicator

When a command is initiated, such as a Pan or ZoomTo, the Busy Indicator appears just above the upper right portion on the map panel. It will oscillate for a few seconds until the command has been completed and then it will disappear.

Alternate Locations for Commands

Several of the commands available as buttons in the upper tool bar are also available choices from a menu when you right click over the map.
Right Click Menu

- Buffer
- Select Within
- Select
- Clear Selection
- Load Bookmark(s)
- Save Bookmark
- Measure
- View Options
- Help
- About

Address Search

Left click the **Address Search** button to display the **Address Search** dialog box:

![Address Search Dialog Box]

Enter the street number and name, city and/or Zip Code and then click the **Address Search** button. The map will then zoom to the location of the address which will be marked by a red X. You may want to turn on the Major Roads and Local Roads and/or aerial photos to verify the location of the address. If the address location does not appear to be correct, click the **Address Search** button again and try using the address along with just the city or zip code.

**Zoom**
Clicking the **Zoom** button brings up the **Zoom GoTo** dialog box.

The **Category** dropdown list of options allows you to zoom to:
- Township/Range
- Well API number
- Cities
- **FIELDS_COGCC**
- Location Number

Select a **Category** from the dropdown list.

Use the format example given in parentheses for certain categories.
For example in the **Location** box enter the information in the required format as shown below.
Click the **ZoomTo** button

In this example, the map frame will then display the selected township: 8N 64W.

The scale of the map can be adjusted by using various Zoom buttons (see below)

**Zoom Buttons**

*or* by adjusting the scale in the lower right portion of the map frame. Just type in the right-hand portion of the scale ratio. In this example you would type in **70000** and then press **Enter** on the keyboard.
Zoom to Rectangle

Select the **Zoom to Rectangle** tool and then left click and draw a box around the area you want to zoom to. The map will zoom to the area of the box that was drawn.

Zoom in

Select the **Zoom In** tool and then click on an area of the map. The map will zoom in at a fixed zoom with the click point being the center of the map.

Zoom Out

Select the **Zoom Out** tool and then click on an area of the map. The map will zoom out at a fixed zoom with the click point being the center of the map.

Previous View

Select the **Previous View** tool and the map will return to the previous map frame.

Initial Map View

Select the **Initial Map View** tool to return to the opening view of the entire state. This does not refresh the map.

Pan Mode

Select the **Pan Mode** tool and then on the map left click and hold the cursor to drag the map to drag in any direction.

Refresh Map
Selecting this tool refreshes the map relative to any updates in the database. The area of the map remains the same.

Select Mode

Clicking on the arrow icon changes the cursor to the select mode. A single left click on a feature (well, water well, etc.) will turn the feature dark blue indicating that it has been selected. Left click and drag a rectangle around multiple features to select all of the multiple features. The selection will be indicated by the color change to dark blue. Selecting multiple features can also be performed by using the Buffer and Select Within tools as described in those header sections below.

To view the list of the selected wells or water wells see the Selection Results section below.

The Selection Tool operates only at a scale of greater than 1:150000 when the wells are represented by bright red dots. That is to say, you must be zoomed in closer than 1:150000. Wells are not selectable at scales zoomed out beyond 1:150000 when you see the wells as dark red dots.

Clear Selection

To remove all selections from the map use the Clear Selection button.

Measure

Use the Measure tool to measure the distance between two points.
- Left click the Measure tool - a Measure Distance panel will appear to the right of the map panel. Segment and Total distances will display in feet and miles.
- Using the crosshair of the cursor, left click the starting point.
- Left click your ending point for the distance from the first point.
- Clicking additional points will display the current segment measurement as well as the total sequence distance.
- Click the Stop button when you have measured the last segment.
- Click the Clear button if you want to clear out the measured totals and start a new measurement.
Buffer

Use the buffer command to create a boundary at set distance around a selected feature. Then you can select other features within the buffer and view a report. Creating a buffer initiates a temporary layer for selection and viewing only. Once the map session is closed, the buffer(s) disappears.

To create a buffer
1. Select the feature or features to be buffered; the selected features will change to dark blue.
2. Left click the **Buffer** tool in the toolbar.
3. The **Create a Buffer** task will appear in the Task Pane on the right side of the viewer window.
4. Under **Distance Around Features**, specify the radius of the buffer.
5. Select the layers to include in the buffer.
6. Specify a name for the buffer.
7. If you have already created a buffer in this session, use the same name to overwrite the first buffer or a new name to create a separate buffer.
8. Optionally, select Merge Buffer Areas.
   If you selected multiple features to buffer, selecting Merge Buffer Areas will combine the buffers for all the features into one buffer. If you do not select this option, each feature will have a separate buffer.
9. Use the options under Fill Style and Border Style to specify how you want the buffer to appear. To display a transparent (no fill color) set the Transparency to 0%.
10. As of this writing, only wells and water wells are the only selectable layers that will yield reports.
11. Click **Done** to create the buffer.
12. Resulting buffer will be placed on the map and is listed as a new layer at the top of the layers list.
13. To hide buffer layers, turn them off by un-checking the Buffer layer box.

**Select Within**

After a buffer has been created, certain features can be selected within that buffer. Most layer features can be selected, but results will be displayed only for wells and/or water wells. A layer must be activated in the layers list in order to be selectable. For example in order to select water wells the **DWR-Wells**
layer must be activated.

To select features within a buffer:
1. Select the created buffer on the map with the arrow cursor; it will turn dark blue.
2. Click the Select Within tool on the toolbar.
3. The Select Within task will appear in the Task Pane on the right side of the viewer window.
4. Under Restrict Results To Selected Layers, click one or more layers containing the features you want to select; use CTRL + Left Click to add more than one layer.
5. Click Done.

This will select all of the designated features within the buffer. The buffer will not be dark blue anymore, but the selected features within the buffer will turn dark blue.

The total number of features selected will be displayed in the features selected area in the middle of the lower informational bar.
To view the **Selection Results** see the section below.

**Selection Results**

Only **wells** and **water wells** are viewable in the **Selection Results** report. Once wells or water wells have turned dark blue indicating that they are selected features, a list of those wells can be generated by clicking the **Selection Results** button. This will generate a window which lists all of the wells in a **Selected Items Report**. To see additional information for the wells click on the blue **API#/Well Name** link for oil/gas wells or the blue **Receipt/Permit number** link for water wells.

**Intersect**

The **Intersect** function is a shortcut to see if any of a fixed number of map layers of interest intersect and area of interest. Activate the **Intersect** button with the cursor and then left click and drag a rectangle around the area of interest. The Intersect tool results are shown in the **Identify Layers** pop-up window (see below). An
intersected layer will be shown in red and indicates that the area of interest intersects that layer. The actual extent of that layer can then be examined by activating that layer on the map.

**Add Point**

The Add Point button allows you to post a marker (X) at a given location on the map. When you left click the Add Point button, the Point Capture pop-up window appears.

From this window adding a point to the map can be performed either by:
1. Adding latitude and longitude in decimal degrees format (e.g. 40.324293) to the boxes and then clicking the Add Point button.
2. Clicking the Add Point by Click button and then clicking on the map where you want the point to appear.

A red X will then appear on the map. ❌

The red X will also display as the Points layer at the top of the Layers list.
Redline

The Redline function allows adding colored points, lines, polygons and text to the map. Redlines can be preserved during the day that they are created by enabling your browser’s session cookies. All public redlines are deleted each night from the COGCC Server and must be re-created the next day.

Left click the Redline tool. The above mentioned “session cookies” message will appear. Click OK.

Now the Manage Redline Groups task will appear in the Task Panel to the right of the map.

To start a new Redline Group click the New button in the Task panel. This loads the New Redline Group - Redline Group Settings window in the Task panel. This allows you to set preferences for colors, thickness, shapes, color transparency as well as font characteristics.
First enter a **Redline Group** name.

For each shape category (point, line and polygon) select your various shape, size, color pattern, fill, thickness and degree of transparency choices.

Note: For a transparent (no color fill) polygon, set Transparency at 100%.

Select the font characteristics for labels and text boxes.

Click **OK**.
The **Manage Redline Groups** pane now displays **Available Redline Groups**.

Select your newly named group name and click **Open**.

The selected group name is now in the **Open Redline Groups** section. If there are multiple group names in the Open Redline Groups box, select the one you want to use.

Click **Edit**.
Under the **Add Redline** header in the **Edit Redline Group** panel select the redline type that you want to create.

For example if you want to add a line, select **PolyLine**.

Click on the map for the starting point.

Continue clicking on the map for as many line segments you want to be displayed.

To finish the line: CTRL + Left Click. This then initiates the Script Prompt for labeling the feature. **Note:** you may need to set the Pop-up Blocker Settings to allow the COGCC website as an allowed site for pop-ups.

If you wish to label the line, enter the label here. Otherwise leave the space blank and click **OK**.
The labeled line then appears with the color/pattern that was defined for polyline and text in the **Redline Group**.

Points, rectangles, circles, polygons and texts can be created in the same manner.

To change text in a label or in a solo text, first highlight the Redline feature to be changed in the **Modify Redlines** section of the Task Pane.
Then type in the correction in the top **Modify Redlines** box and....

...click the **Update Text** button.

The corrected text will then appear on the map.
Note:
Once a Redline Group has been created, the color thickness, pattern, etc. cannot be modified. To change these characteristics a new Redline Group will need to be created to design the formatting desired.

When finished with the redlines, click the Close button at the bottom of the task pane.

Copy

The copy command puts the webpage map image on the clipboard. You can print from the clipboard view which will yield an image of approximately 4” x 7”.

Webpage
Other printing options:

1. To obtain a larger print size, **Copy** (right-click > copy) and paste the clipboard image into another document - for example MS Word or Power Point. In the new document the pasted image can be resized to fit your needs before printing. Printing from this document will result in a full page print if desired.

2. Another alternative is to use the **Print Screen** command (PRTSCN button for a single monitor or ALT + PRTSCN for the active window if using two monitors). Paste this into another document and then resize and crop to fit your needs.

3. If you are using Windows 7, the **Snipping Tool** can be used to capture whatever image you want from the map and then paste it into another document for printing. This pasted image can also be adjusted to size.

**Lat/Long**

The **Lat/Long** function will display the latitude and longitude to six decimal degrees. Put the cursor in the arrow select mode, click the **Lat/Long** button and then left click a point on the map. A pop-up window will display the latitude and longitude of the point from the map.

```
Message from webpage

The following coordinates are in the NAD83 datum:
Latitude: 40.145059
Longitude: -107.922419

OK
```
Click the **Print** button to generate a PDF of the map frame view. Initially the **Generate Map PDF** pop-up window appears. From this window you can customize the print to fit your needs. It allows you to:

- generate a title for the map,
- chose the paper size
- chose the orientation
- chose a legend size or chose not to display a legend
- chose the scale of your map print.

When you have made these choices, click the generate PDF button. Generating the PDF can take up to a minute or more depending on the paper size chosen and the speed of your computer processor. When it has finished you will see this window:

Follow the directions to determine how you want to view or save the image. From the image you can print or see a print preview to adjust the positioning and size of the map on the paper.
APPENDIX

Examples of Redline Input Parameters at Various Scales

The following examples (pages 24-31) represent what various input of MapGuide 2010 Redlines size and colors and colors look like when input at various scales. They are meant to be used as a starting point for you to judge what best suits your purpose. You may want to go smaller or larger with point size, line size or font size to best display your features.

Here are some points to consider as you become familiar with the new Redline tool:

- The Labels Style will determine the size of the Redline labels as well as any solo text you might create.
- If you want to add a text label with a different size, you will need to set up a separate Redline Group for that size text.
- If the label associated with the point that was created is too close to that point, adding spaces before the text during the Script Prompt will not move the text further to the right in the label. You will have to create the point without a text label and then add a separate text placed where you want it to begin.
- Rectangle, polygon and circle will all draw with the same style that was set up for Polygon Style.
- If the map is too crowded, that is if there is too much interference from multiple map features (wells, lines, labels, etc.) the feature Redline text will not plot.
<table>
<thead>
<tr>
<th>Scale</th>
<th>SECTION 1:12000</th>
</tr>
</thead>
</table>

**Point Style**
- **Type**: circle
- **Units**: points
- **Size**: 5
- **Color**: red

**Line Style**
- **Pattern**: solid
- **Units**: inches
- **Thickness**: 0
- **Color**: blue

**Polygon Style**
- **Pattern**: solid
- **Transparency**: 60
- **Foreground Color**: lime
- **Background Color**: transparent
- **Border Pattern**: dash
- **Units**: cm
- **Thickness**: 0
- **Color**: black

**Label Style**
- **Units**: points
- **Font Size**: 10
- **Label Color**: black
- **Background Color**: white
- **Background Style**: ghosted
<table>
<thead>
<tr>
<th><strong>Scale</strong></th>
<th>1:6000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Point Style</strong></td>
<td></td>
</tr>
<tr>
<td>Type</td>
<td>circle</td>
</tr>
<tr>
<td>Units</td>
<td>points</td>
</tr>
<tr>
<td>Size</td>
<td>5</td>
</tr>
<tr>
<td>Color</td>
<td>red</td>
</tr>
<tr>
<td><strong>Line Style</strong></td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>solid</td>
</tr>
<tr>
<td>Units</td>
<td>inches</td>
</tr>
<tr>
<td>Thickness</td>
<td>0</td>
</tr>
<tr>
<td>Color</td>
<td>dk green</td>
</tr>
<tr>
<td><strong>Polygon Style</strong></td>
<td></td>
</tr>
<tr>
<td>Pattern</td>
<td>line 45</td>
</tr>
<tr>
<td>Transparency</td>
<td>0</td>
</tr>
<tr>
<td>Foregnd Color</td>
<td>blue</td>
</tr>
<tr>
<td>Backgnd Color</td>
<td>yellow</td>
</tr>
<tr>
<td>Border Pattern</td>
<td>solid</td>
</tr>
<tr>
<td>Units</td>
<td>cm</td>
</tr>
<tr>
<td>Thickness</td>
<td>0</td>
</tr>
<tr>
<td>color</td>
<td>tan</td>
</tr>
<tr>
<td><strong>Label Style</strong></td>
<td></td>
</tr>
<tr>
<td>Units</td>
<td>points</td>
</tr>
<tr>
<td>Font Size</td>
<td>15 Bold</td>
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<td>Label Color</td>
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<td>Backgnd Color</td>
<td>lime</td>
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<td>Backgnd Style</td>
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</table>
### Scale

<table>
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### Point Style

<table>
<thead>
<tr>
<th>Type</th>
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<tbody>
<tr>
<td>Units</td>
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<tr>
<td>Size</td>
<td>5</td>
</tr>
<tr>
<td>Color</td>
<td>red</td>
</tr>
</tbody>
</table>

### Line Style

<table>
<thead>
<tr>
<th>Pattern</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Units</td>
<td>inches</td>
</tr>
<tr>
<td>Thickness</td>
<td>0</td>
</tr>
<tr>
<td>Color</td>
<td>dk green</td>
</tr>
</tbody>
</table>

### Polygon Style

<table>
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<tr>
<th>Pattern</th>
<th>line 45</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Forgrnd Color</td>
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</tr>
<tr>
<td>Backgnd Color</td>
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</table>

### Border

<table>
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</thead>
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<td>Units</td>
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<tr>
<td>Thickness</td>
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</tr>
<tr>
<td>color</td>
<td>tan</td>
</tr>
</tbody>
</table>

### Label Style

<table>
<thead>
<tr>
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<th>points</th>
</tr>
</thead>
<tbody>
<tr>
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<td>10</td>
</tr>
<tr>
<td>Label Color</td>
<td>red</td>
</tr>
<tr>
<td>Backgnd Color</td>
<td>white</td>
</tr>
<tr>
<td>Backgnd Style</td>
<td>transparent</td>
</tr>
</tbody>
</table>
QQ Scale 1:3000 (above example) when backed out to Section scale 1:12000 looks like this:
**Township**

**Scale**
1:72000

**Point Style**
- **Type:** circle
- **Units:** points
- **Size:** 5
- **Color:** red

**Line Style**
- **Pattern:** solid
- **Units:** inches
- **Thickness:** 0
- **Color:** red

**Polygon Style**
- **Pattern:** solid
- **Transparency:** 90
- **Foreground Color:** yellow
- **Background Color:** transparent

**Border Style**
- **Pattern:** solid
- **Units:** cm
- **Thickness:** 0
- **Color:** black

**Label Style**
- **Units:** points
- **Font Size:** 10
- **Label Color:** black
- **Background Color:** white
- **Background Style:** ghosted
# Scale

<table>
<thead>
<tr>
<th>Point Style</th>
<th>Line Style</th>
<th>Polygon Style</th>
<th>Label Style</th>
</tr>
</thead>
<tbody>
<tr>
<td>Type</td>
<td>Pattern</td>
<td>Pattern</td>
<td>Units</td>
</tr>
<tr>
<td>Units</td>
<td>Units</td>
<td>Transparency</td>
<td>Font Size</td>
</tr>
<tr>
<td>Size</td>
<td>Thickness</td>
<td>90</td>
<td>10</td>
</tr>
<tr>
<td>Color</td>
<td>Color</td>
<td>Foreground</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>Color</td>
<td>white</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Border Pattern</td>
<td>ghosted</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Units</td>
<td>points</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Font Size</td>
<td>10</td>
</tr>
<tr>
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<td></td>
<td></td>
<td>Border Pattern</td>
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<td></td>
<td>Units</td>
<td>cm</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Border Pattern</td>
<td>solid</td>
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<td>Units</td>
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<td></td>
<td></td>
<td>Thickness</td>
<td>0</td>
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<tr>
<td></td>
<td></td>
<td>Color</td>
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<tr>
<td>1:2917827</td>
<td>solid</td>
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<td>white</td>
</tr>
<tr>
<td>Color</td>
<td>inches</td>
<td>transparent</td>
<td>ghosted</td>
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## Summary:

<table>
<thead>
<tr>
<th>Map View</th>
<th>Section</th>
<th>Q Sec</th>
<th>Q Sec #2</th>
<th>QQ Sec</th>
<th>Township</th>
<th>Colorado</th>
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</thead>
<tbody>
<tr>
<td>Scale</td>
<td>1:12000</td>
<td>1:6000</td>
<td>1:6000</td>
<td>1:3000</td>
<td>1:72000</td>
<td>1:2917827</td>
</tr>
</tbody>
</table>

### Point Style
- **Type**: circle, circle, circle, circle, circle, square
- **Units**: points, points, points, points, points
- **Size**: 5, 5, 5, 5, 5
- **Color**: red, red, red, red, red

### Line Style
- **Pattern**: solid, solid, solid, solid, solid, solid
- **Units**: inches, inches, inches, inches, inches
- **Thickness**: 0, 0, 0, 0, 0
- **Color**: blue, dk green, dk green, blue, red

### Polygon Style
- **Pattern**: solid, line 45, line 45, solid, solid, solid
- **Transparency**: 60, 0, 80, 90, 90, 90
- **Foreground Color**: lime, blue, blue, lt blue, yellow, lime
- **Background Color**: transparent, yellow, yellow, transparent, transparent, transparent
- **Border Pattern**: dash, solid, solid, dashdot, solid, solid
- **Units**: cm, cm, cm, cm, cm
- **Thickness**: 0, 0, 0, 0, 0
- **Color**: black, tan, tan, black, black

### Label Style
- **Units**: points, points, points, points, points, points
- **Font Size**: 10, 15 Bold, 10, 10, 10, 10
- **Label Color**: black, red, red, black, black, black
- **Background Color**: white, lime, white, white, white, white
- **Background Style**: ghosted, opaque, transparent, ghosted, ghosted, ghosted