

User Guide and Help

Framework CT® Viewer

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User Guide and Help

Framework CT® Viewer

INTRODUCTION

Framework CT Viewer is an application that allows the Users to share and view 3D or multi-dimensional charts. The charts can be generated and exported in TeamVision's .fct format using any of the Framework CT products:

- Framework CT Excelerator®
- Framework CT Professional®
- Framework CT Professional Plus®
- Framework CT Enterprise®

These chart files (having an .fct extension) can be opened using the FREE distributable application called Framework CT Viewer. This User Guide is intended to help users understand the operating principles behind this simple yet highly useful product.

BASIC LAYOUT

The following figure shows the main window layout for Framework CT Viewer®.

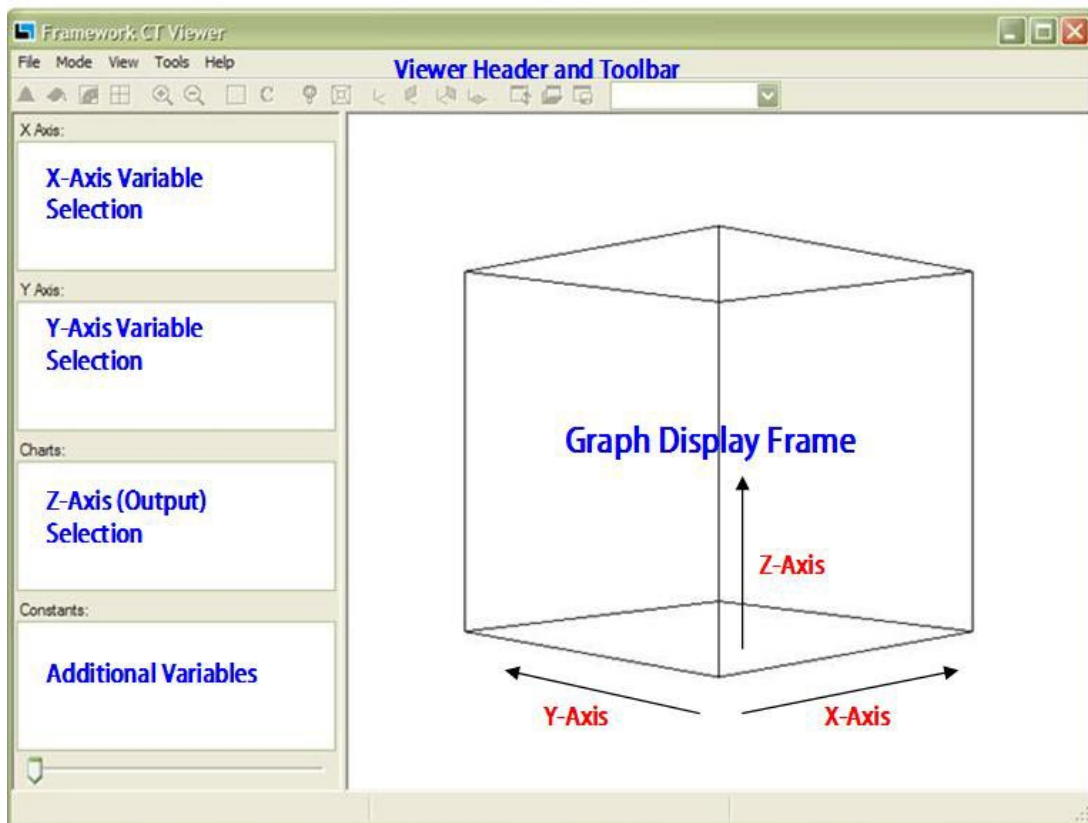


Figure 1: Framework CT Viewer Main Window

Framework CT Viewer has a main “chart display” frame which shows the selected view of the chart. On the left column there are four sub-frames which give the user a choice of selecting various input variables and output results:

1. X-Axis (Input) Variable selection frame - this lets the user select the X-axis variable from the list of all input variables by clicking the appropriate radio button.
2. Y-Axis (Input) Variable selection frame – this lets the user select the Y-axis Variable from the list of all input variables by clicking the appropriate radio button.
3. Chart (Z-Axis/Output) selection frame - this lets the user select the Z-Variable(s) from the list of all output results by clicking the appropriate check boxes (multiple selection is allowed for simultaneous display of multiple output charts).
4. Constants (Input Assumptions) selection frame - this lets the user select the additional input variables or assumptions from the list of remaining variables apart from the ones selected for the X and Y-Axis variables.

Example

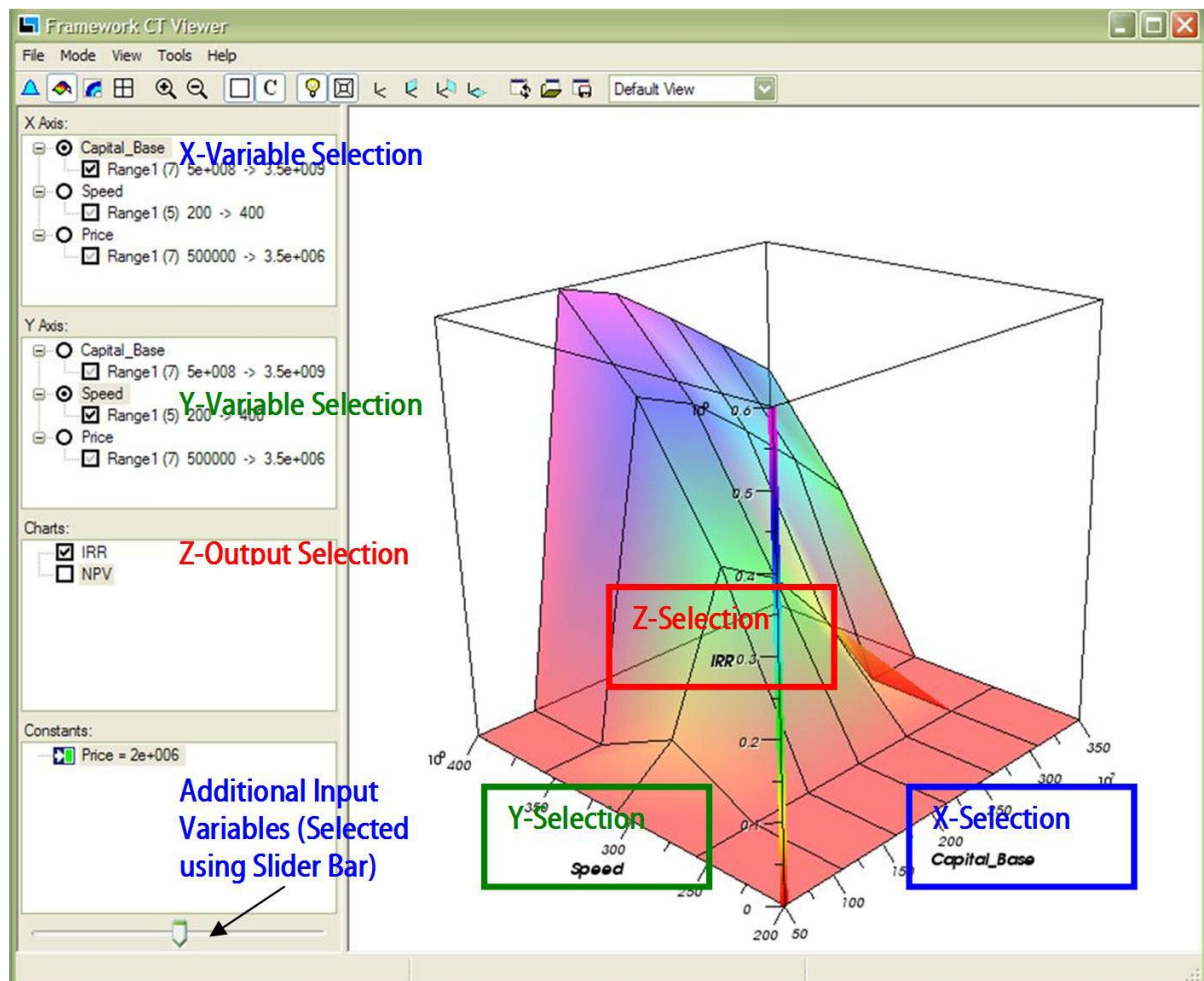


Figure 2: Example of a 4-D chart (X-Y variables displayed respectively as Capital Base and Speed; Z-output result as Internal Rate of Return (IRR); and the additional 4th Variable (Price) displayed and manipulated in the bottom left sub-frame.





TOOLBAR SHORTCUTS

Here are the options available on the toolbar:



* Note that the selected options (buttons) appear with the lighter background.




CHART MODE Selection

-  Selects 2-D or conventional line chart
-  Selects 3-D or surface chart
-  Selects carpet or contour plot
-  Selects 3-D & slice charts (multi-chart view mode)

ZOOM Options

-  Zoom in
-  Zoom out

OTHER CHART Properties Selection

-  Turn the chart wire frame ON or OFF
-  Turn the perspective mode on the chart ON or OFF
-  Turn the chart shader illumination ON or OFF



Turn the chart title caption ON or OFF

Preset CHART VIEW Selection



Orients the chart in the default view



Orients the chart in X-Axis view (side view)



Orients the chart in Y-Axis view (front view)



Orients the chart in Z-Axis view (top view)

SCENE Options

In Framework CT Viewer, for the ease of understanding and presentation, the user can save chart orientations and views and name them for later recall. These named chart settings are called “scenes”. The following buttons on the toolbar allow scene operations.



Reloads the scene named in the drop-down selection box to the right of the button.



Opens the list of the scenes previously stored and allows the user to select one of them.



Saves a new scene with a different name.

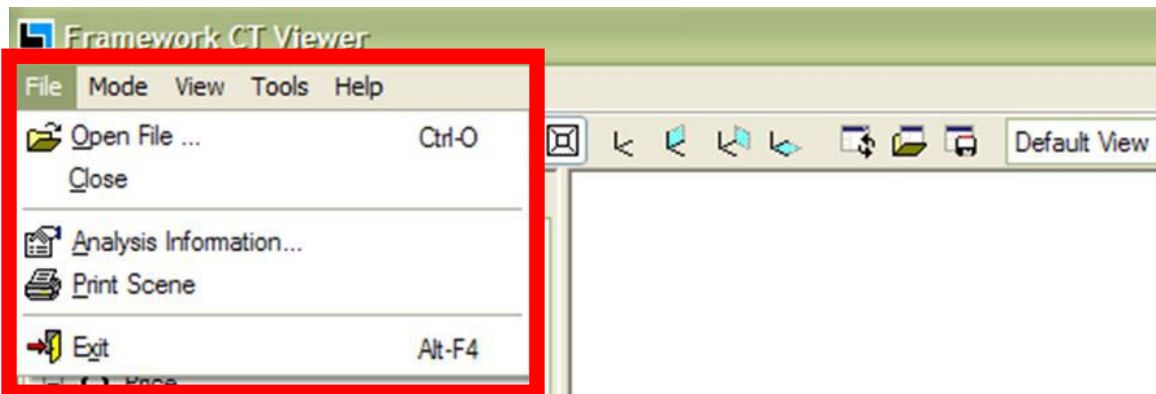


Allows the user to recall a previously saved scene and displays its name.

MENUS

The following section explains the menu options available in Framework CT Viewer.

FILE Menu



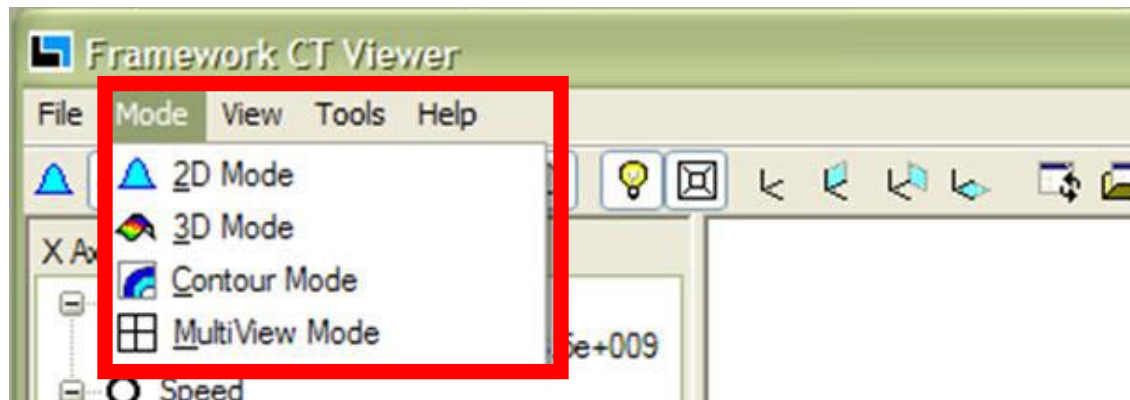
Analysis Information

Analysis Information allows the user to enter notes about the generated chart file. These notes are also displayed each time the file is opened.

Printing the Chart

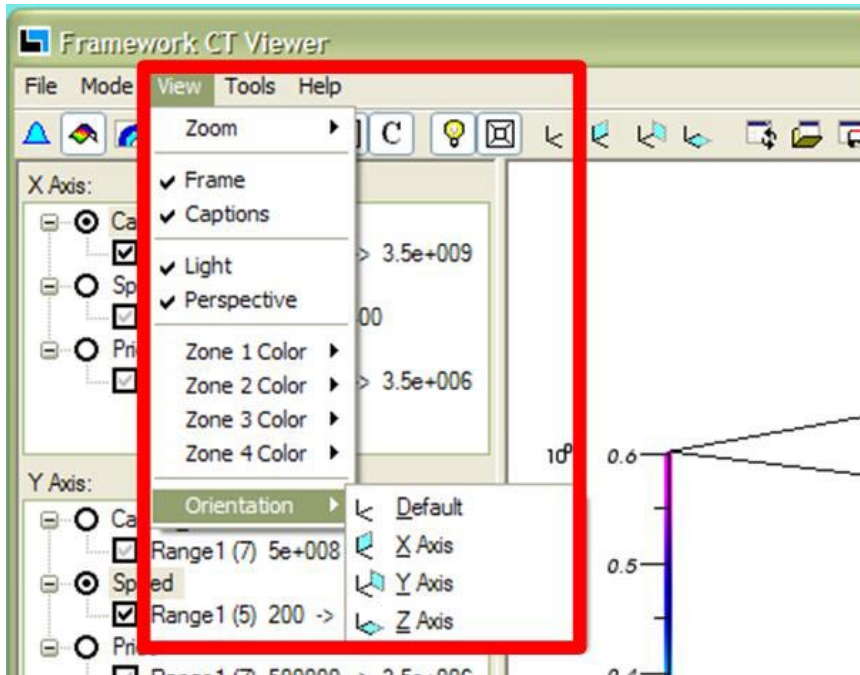
This menu opens the print dialog to let the user print the current view of the chart.

MODE Menu



The mode menu lets the user select the desired chart type. It functions exactly the same as the toolbar buttons.

VIEW Menu



Zone Colors

The view menu allows the user to manipulate chart settings. In addition to the corresponding toolbar buttons, the view menu offers zone color settings. Framework CT Viewer implements four named zones (or color scales). Each zone can be set to any one of four color schemes. This is particularly important while viewing multiple charts at once, especially if they require different axis scales.

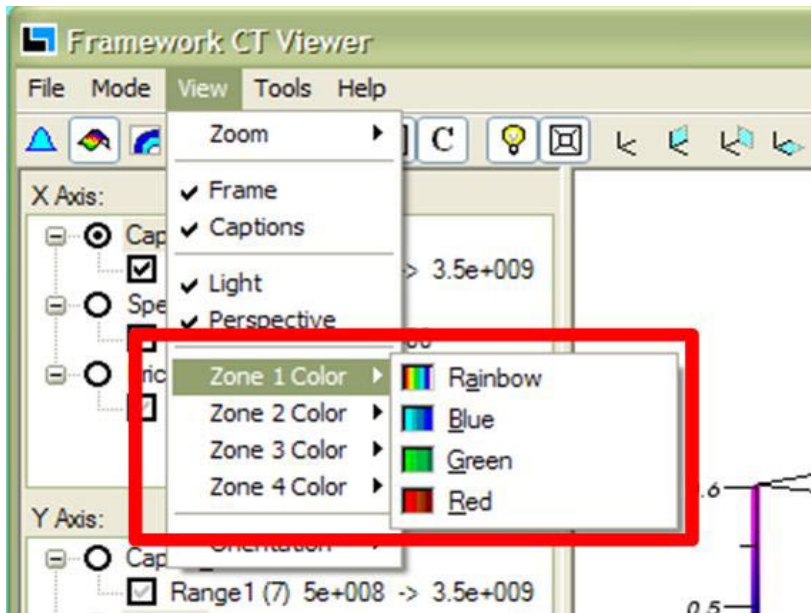
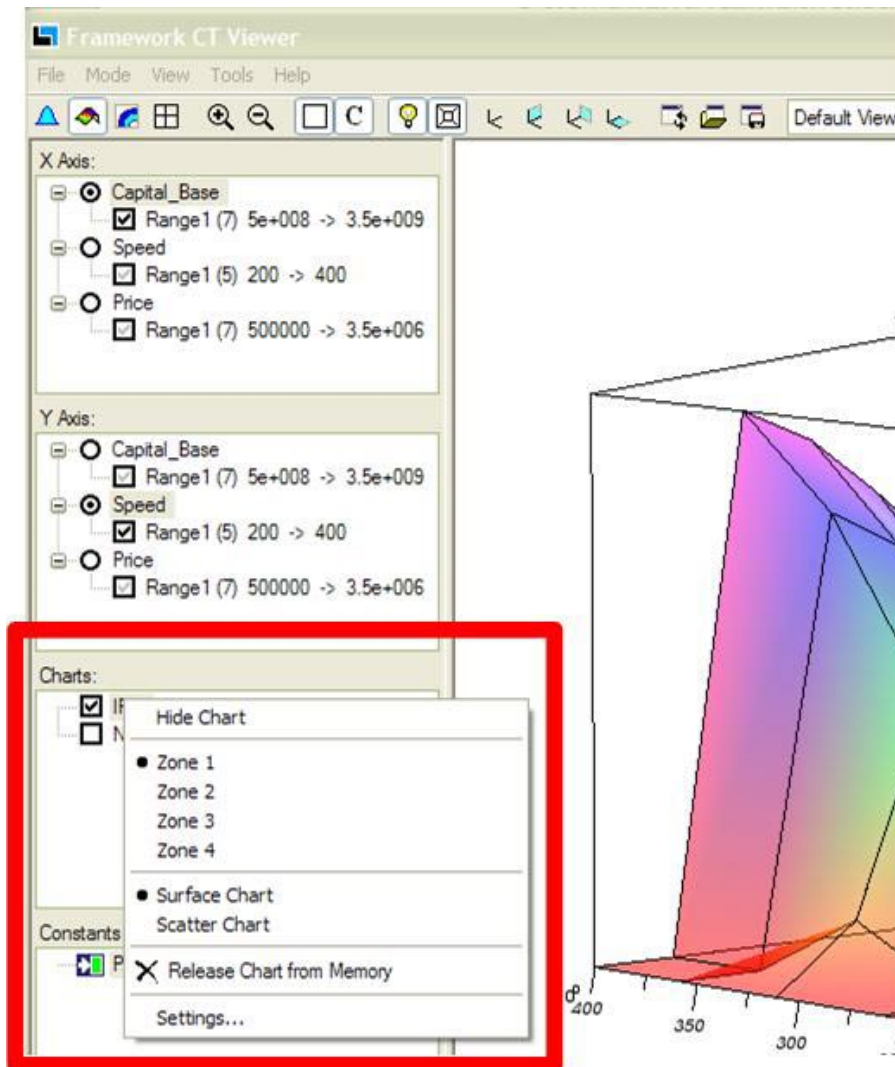


CHART OPTIONS

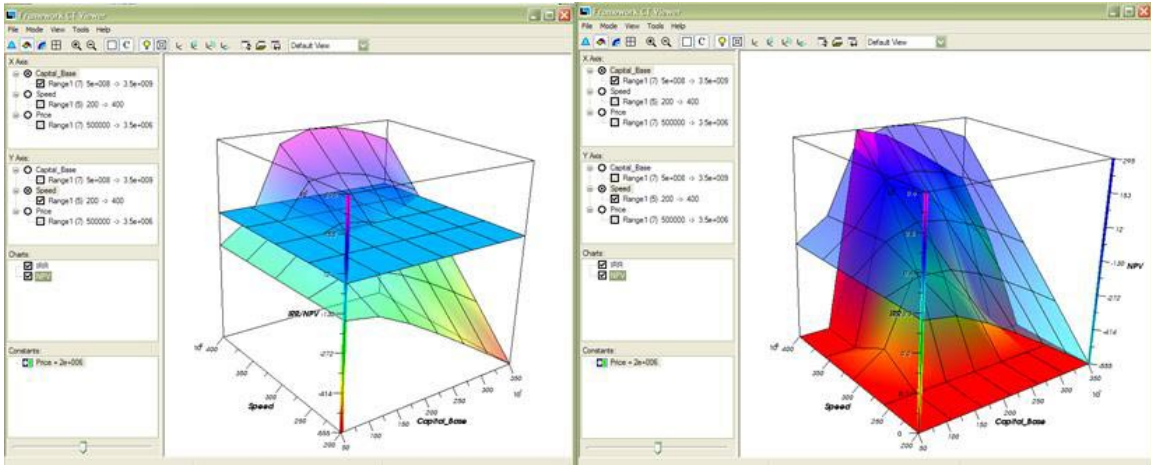


Right-clicking on the selected chart variable displays available options for the corresponding chart. Here, the user can select the desired color zone. Each zone has a set color and individual scale. This is particularly important while visualizing multiple charts with different numerical/value ranges.

Contrasting Multiple Charts

If two or more charts with different ranges are set on one scale, the chart with widest range becomes predominant in the view while others will appear to be more flat giving no visual detail for them at all. Setting individual zones for each chart solves this problem. Because each individual zone has its own range, all charts show variation in their respective color gradient and scale. This reveals more depth in each chart independent of the other charts.

Example

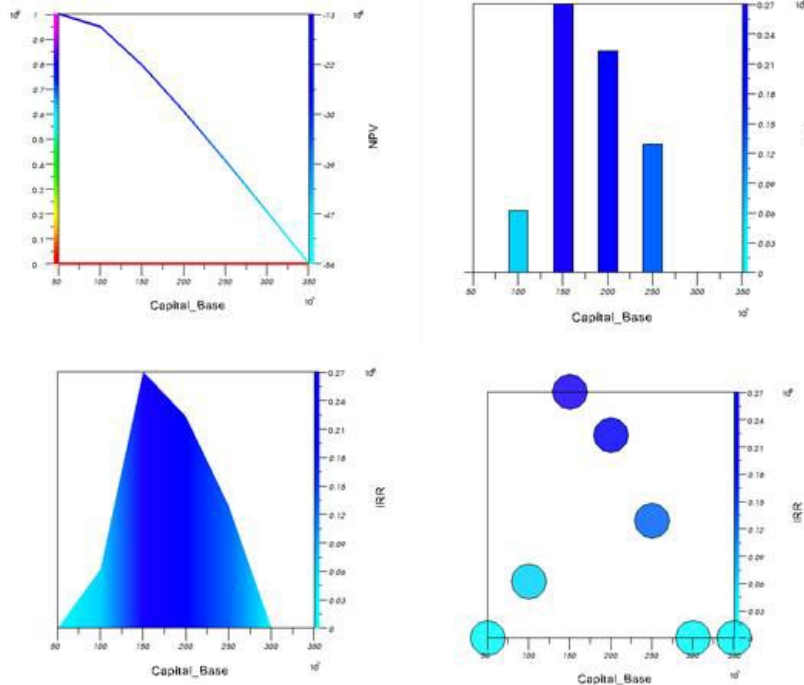


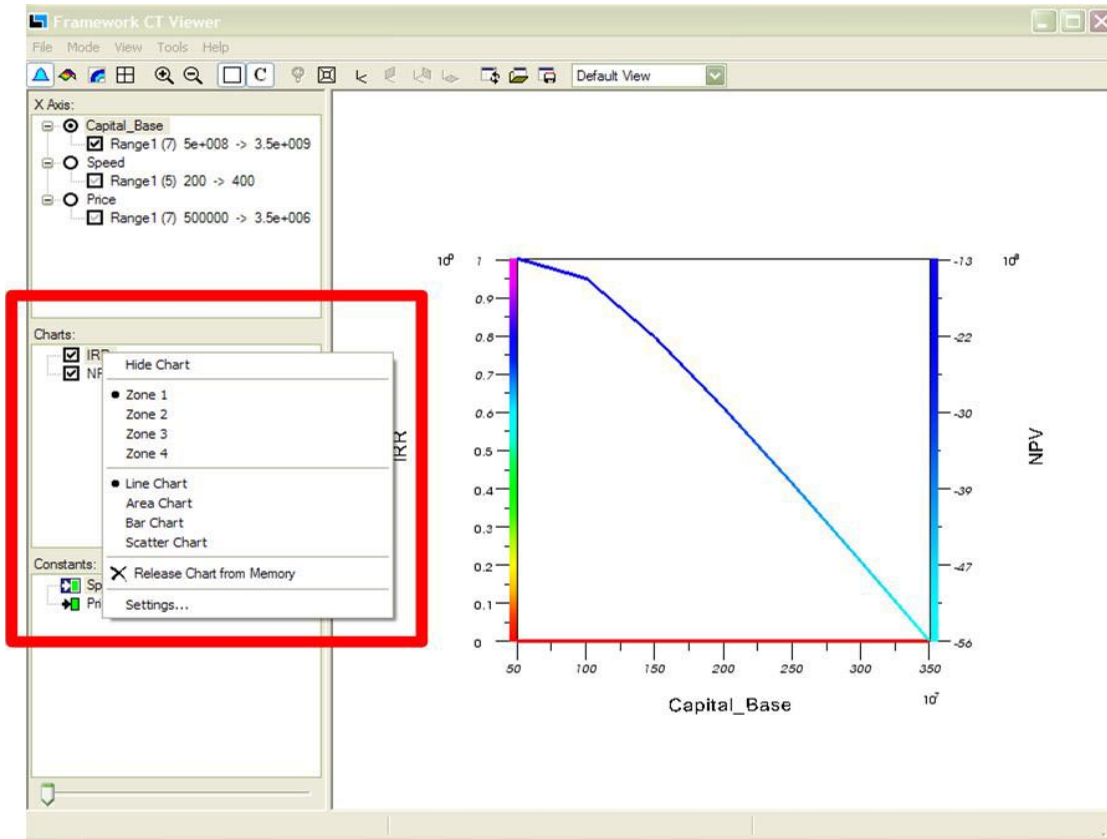
The left chart shows IRR (value range 0.00 to 0.60) and NPV (value range \$5 billion to - \$5 billion) plotted on the same scale (in the same zone). Because the IRR chart has a smaller range than NPV, it shows only as a flat plane due to the vast difference in the ranges for each chart. In contrast, the chart on the right shows two charts on their individual scales (i.e., in different zones) correctly revealing the details of each chart.

ADVANCED CHART OPTIONS

Selecting PLOT/CHART TYPE

Users can select “Scatter” or “Surface” plot for 3-D charts by right-clicking the chart (Z-Variable) name in the list. Similarly, for 2-D Charts users can select from four options (line, bar, area and scatter) as shown in following figure:





This figure shows Line, Area, Bar and Scatter chart options for 2-D charts. This is accessible by right-clicking on chart name in the charts list (Z-Variable).

ADVANCED CHART SETTINGS

Certain advanced chart settings are available for better visualization. These settings would allow the user to select specifics about chart attributes such as:

- Color Zones
- Chart Range
 - o Dynamic (variable high – low bounds of the display data)
 - o Fixed (constant high – low bounds of the display data)
- Visual Transparency
- Lines and Line Colors

These options are invoked by right-clicking on the chart name in the charts list (Z-Variable) and then selecting *Settings...* as shown in the following figure:

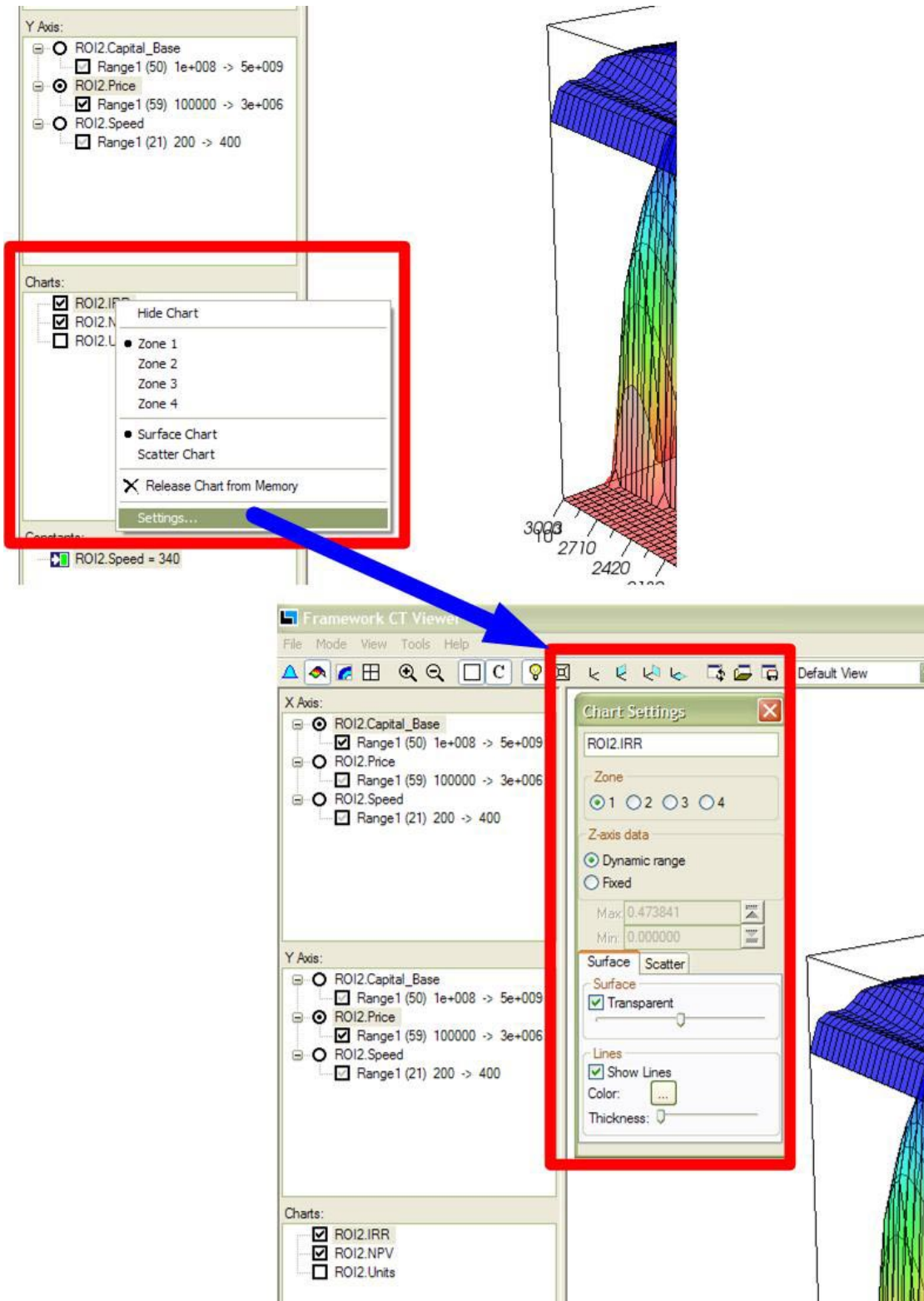
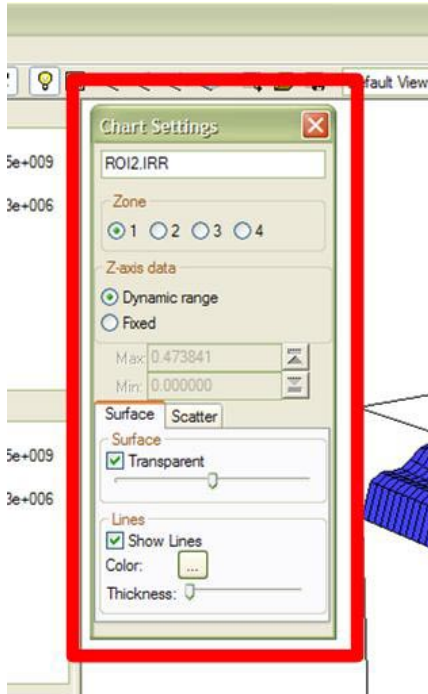


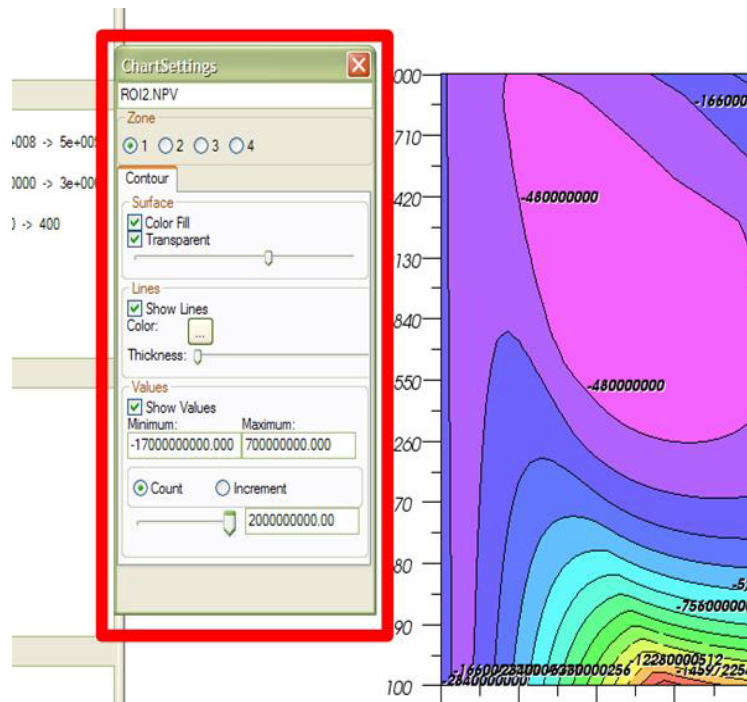
Figure: Setting Advanced Chart Options

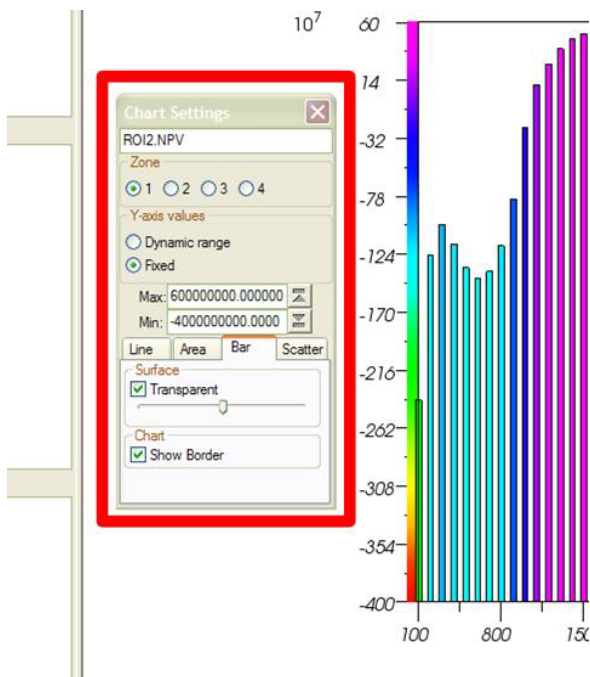
These advanced chart options differ depending on which type of chart is being viewed. Here are the main chart types and related advanced options.



3-D (Surface or Scatter) Chart Advanced Settings

Carpenter (Contour) Plot Advanced Chart Settings





2-D Chart (Line, Area, Bar or Scatter) Advanced Settings

MEMORY MANAGEMENT

When displaying a large number of data points and multiple charts, the memory requirements can quickly become overwhelming. The main concern here is the system response time during chart manipulation or advanced visualization.

To help address this, Framework CT Viewer can release the memory used by individual charts. This option is available by right-clicking a chart name in the charts list (Z-Variable) and choosing *Release Chart from Memory...* This will allow the application to clear the memory used by that chart and reload the data only as necessary.

MORE INFORMATION

This concludes the short User Guide to help get started with this new exciting product. For any additional questions, please contact a TeamVision Corporation representative via email at sales@teamvisioninc.com or by phone at 253-661-9765 x 301. You may also visit our website at www.teamvisioninc.com for more information and regular updates.