

Leica TruView

Version 1.0

Leica TruView

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System Requirements

- Microsoft Windows XP (SP1 or higher),
- Windows 2000 (SP3 or higher with up to date security patches)
- Microsoft Internet Explorer Version 6.0 or higher
- 500 MHz Processor or faster
- 256 MB RAM or higher;
- OpenGL accelerated graphics card
- Currently you must use the Microsoft Internet Explorer Web browser 6.0 or later.
Other browsers such as FireFox or Netscape might be supported in the future.
- ActiveX must be activated in the browser.

Installation

To obtain the TruView Plugin...

1. Visit the Leica website at <http://www.leica-geosystems.com/hds/en/63727.asp>.
2. Register and download the plugin.

To install or load the TruView Plugin...

1. Double-click on *TruViewSetup.exe* or run it from the command line.
2. Follow the instructions on the screen.

Note: Internet Explorer 6.0 or later must be available for this plugin.

Note: Be sure to restart your computer if asked to do so at the end of the installation.

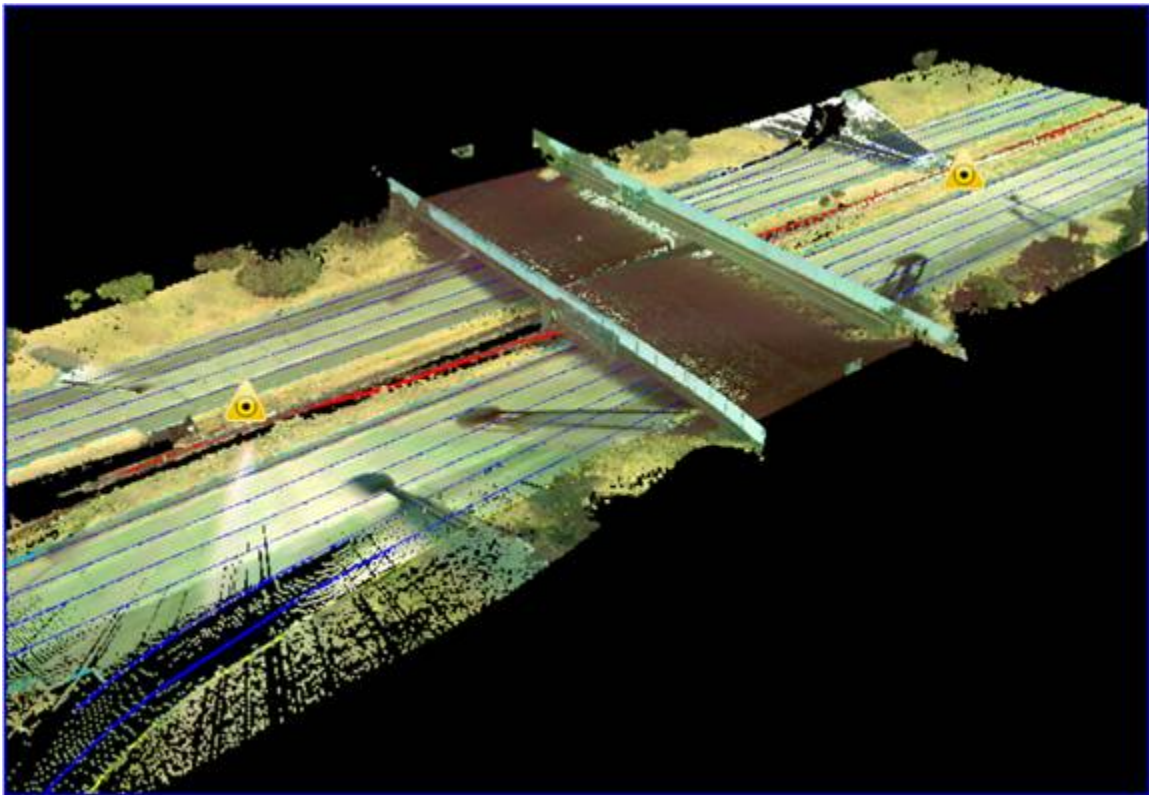
Otherwise TruView will not work properly.

To allow TruView to work if the IE security system is blocking access...


1. There is a yellow bar under the tool bars of Internet Explorer. Click it to allow ActiveX components to run. Then TruView will run.

TruView Site Map

Each TruView scene is a panoramic (360 degree) image of point cloud data with the viewpoint being located at the same location as the scanner that captured the point clouds. Your viewpoint in TruView is from the exact scanner location that you chose. You can pan around the scene and zoom in and out, but cannot fly around the scene as in some 3D systems. Your viewpoint is always located at a scanner location. Often, a single project uses many scanner locations. In such cases, you can move from one scanner location to another to have various viewpoints within the project. Each viewpoint has a separate Scanworld.




Site map - Two Scanner Locations (Viewpoints)

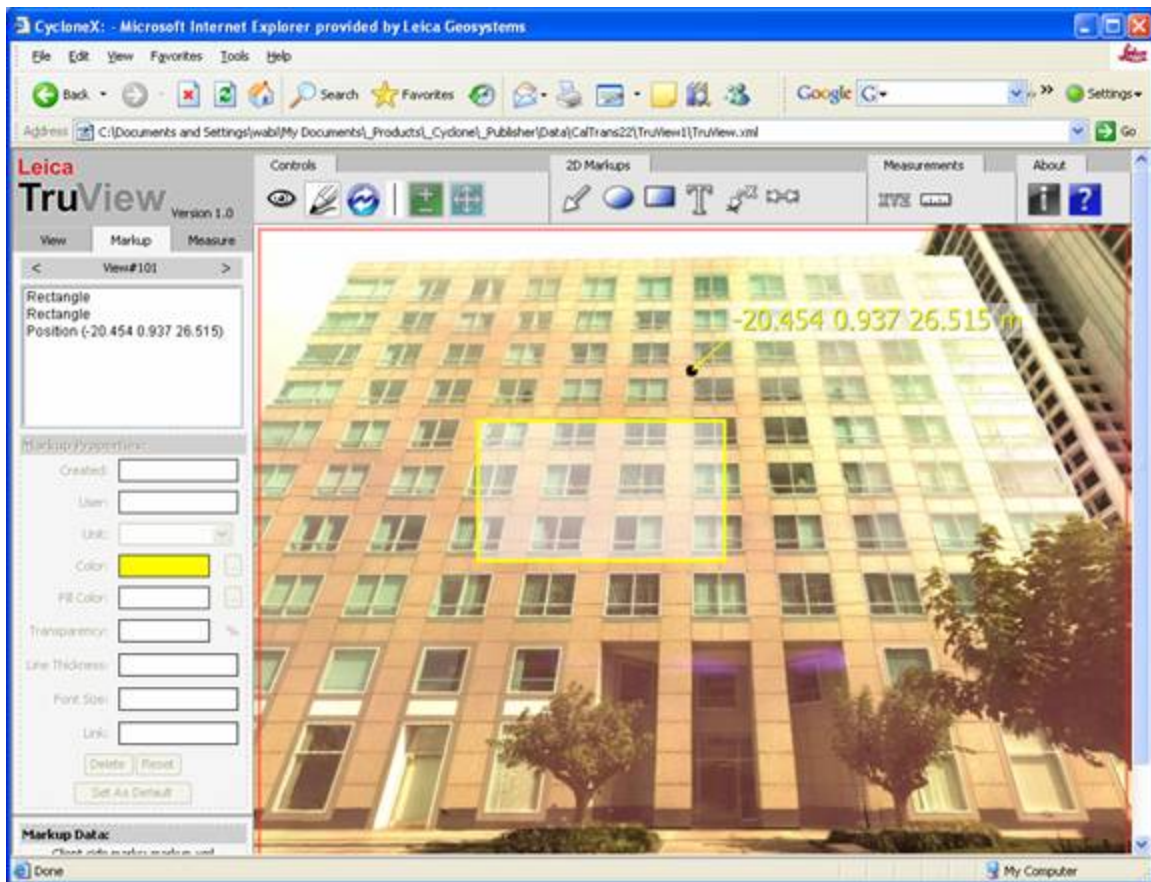
The site map contains image icons  located at the center point of each available TruView scene. (The site map above has two scanner locations.) Click on a triangle icon and TruView launches inside Internet Explorer.

*NOTE: If Internet Explorer (IE) is not your **default** browser, then you must open IE first.*

Entering a TruView Scene

1. To enter a TruView scene, either visit a web page which is a site map, or go to an HTML document on your local drive, which has a TruView site map generated by the Cyclone PUBLISHER. The filename of the site map on your local computer is *SiteMap.htm*.
2. Open the web page or html document.
3. The site map contains image icons  located at the center point of each available TruView scene. Click on a triangle icon and TruView launches inside Internet Explorer. *NOTE: If Internet Explorer (IE) is not your default browser, then you must open IE first.*
4. You can begin panning, zooming, marking up and using all the other features of TruView.

Following is an example of a TruView window:



TruView Window – Example of Markup mode

Basic Concepts

Leica TruView is very simple to use. After you understand the basic concepts you will find it is easy to view, markup and measure point cloud data. The main thing to understand about Leica TruView is that it has three basic working modes: Measure, Markup and View.

Measure Mode

In Measure mode, the Measure tab  and Measure Control



are highlighted. TruView always opens in the Measure mode.

This mode lets you move your viewpoint in, out and around the scene so you can find and look at your exact area of interest. It also lets you measure between two points or get the coordinate information for a single point. However, this mode does *not* place those values as permanent markups. They disappear if you change modes. It only reports them to the properties table at the left of the screen. If you want to place a dimension markup, use Markup Mode.

Markup Mode

In Markup mode, the Markup tab  and Markup Control



are highlighted.

This mode lets you place markups like rectangles or text. When you are in markup mode the view is frozen like a screen capture or snapshot. Markups are placed as a group together on a saved (frozen) view. You can have many saved views, each with its own group of markups and its own name.


View Mode

In View mode, the View tab  and View Control  are highlighted.

View mode allows you to jump from view to view. When you go to each saved view you can see the markups for that view. If any of these markups have a hyperlink (a feature allowed in markup mode) then you can navigate to those links by clicking on the markup in this mode.

Switching Modes

There are several ways to switch between the various modes. Sometimes the modes automatically switch to a new correct mode as you perform other actions. For example, clicking on a markup tool automatically switches you to the Markup Mode.

TruView always starts with Measure Mode activated. The Measure tab is selected and the Measure icon  is highlighted.



To Enter Measure Mode

- Open TruView
Or

- Select the [Measure Tab](#)
- Or



- Select the Pan\Zoom Mode Icon
- Or



- Select either of the 3D Measurement Icons
- Or



- Double click in a Markup view

In Measure Mode you can pan and zoom as well as take measurements. The values of the length, and ΔX , ΔY and ΔZ components for a line between two selected points are displayed in the properties panel in the Markup tab. The X, Y and Z components for a selected point are displayed in the properties panel in the Markup tab. The color "red" highlights the current measurement.

Measurements are retained until you switch to Markup or View mode. When you switch modes, all the measurements are deleted. (Distances between points and coordinate points are retained in Markup mode.)

To Enter Markup Mode

- Select the [Markup Tab](#)
- Or



- Select the Markup Mode Icon
- Or



- Select any of the Markup Item Icons on the 2D Markups toolbar



A selection of markup types is available in Markup mode. Markups are placed on a 2D frozen image. This image, along with its markups, is saved as a recallable view.

To Enter View Mode

- Select the [View Tab](#)
- Or



- Select the View Mode Icon



View Mode allows you to pan and zoom through the view. You can also move to a previously saved Markup view by clicking on the view name in the tab.

Measure in Measure Mode versus Measure in Markup Mode

The definition of Measure in the Measure Mode for TruView is not the same as a Markup Dimension. In Measure Mode, measuring is not a drafting or markup function. It is simply measuring the distance between two points or extracting the coordinate location of a single point. The measurement values are shown in the Measure Properties Panel. However, in Markup Mode measuring is a "permanent" Markup function.

Controls and Tools

Using Zoom/Pan Controls

In Measure mode you can Pan and Zoom.

Panning

Panning is the process of moving the direction you are looking. It is similar to turning your head. You can look up, down, left or right. There is more than one way to pan in TruView.

Pan Using the Mouse

By picking any point in the TruView display widow with the left mouse button and holding it down you can pan in any direction by dragging the mouse in that direction.

A red arrow stretches from the location you picked on the screen to the current location of the mouse. The farther you drag from the point you picked, the faster the scene pans. The red arrow shows the direction and how fast (arrow length) you are panning.



Panning Arrow

Pan Using the Icon

You can use the Pan Icon on the Controls Toolbar to pan the TruView scene.



You can pick anywhere on the icon to pan in the desired direction. If you pick once, the scene pans one small step. If you pick and hold, the scene begins to pan continuously until you release. For instance, picking in the upper right corner pans your view diagonally up to the right; picking on the right side of the icon pans to the right and so forth.

Zooming

Zooming is the process of moving towards or away from the direction you are looking. It is similar to moving your head closer to or further from a picture. There is more than one way to zoom in TruView.

Zoom Using the Mouse

With a wheel mouse, pick any point in the TruView display window by depressing and holding the wheel and move the mouse down the screen to zoom in and up the screen to zoom out.

Zoom Using the Icon

You can use the Zoom Icon on the Controls Toolbar to zoom the TruView scene.



You can pick the icon to zoom in or out. If you pick once, the scene zooms one small step. If you pick and hold, the scene begins to zoom continuously until you release. Picking in the upper portion of the icon (+) zooms in and picking in the lower half (-) zooms out.

Using 2D Markup Tools

A selection of markup types are available in markup mode.



2D Markups - Tools

Markups are placed on a 2D frozen image. This image is saved as a recallable view.

Continuous Command Looping

After you enter and complete a markup command, it remains active so you can place several of the same types of markups in a row without having to reselect the icon. You can terminate the command by right clicking and selecting “deselect” from the menu, or by selecting a different command icon.

The various markup types are:

- Arrow Line.
 - Pick a point where you want the arrow head and drag the line to the length and position you want
- Circle and Rectangle
 - Pick a point and drag in any direction to the size and shape you want
- Text
 - Pick a point for the upper left point of the string and type in the text
- Coordinate
 - Pick a point for which you want the coordinate value then pick a point where to place the coordinate text. A rubber banding leader line is attached from the pick point to the location of the text placement
- Distance

- You are prompted to select a first and second point. You then place the distance text label at the desired location with a rubber banding line attached.

Note: If the scanner data has image data included for areas that were not scanned, such as the sky, then there are not any points you can measure to in those areas. Therefore, the system automatically darkens the non-measurable points so you can see the points that are measurable. This could be the entire sky or even stripes of data right in the main areas you wish to dimension. This depends on the density of the scanning and the scanning methods used to collect the data.

Editing Markups

You can edit any markup by first selecting it in the view area. “Handles” appear when a markup is loaded. You can also select the markup in the list of markups on the Markup Tab.

- Arrow Lines, Rectangles and Circles can have their location and size changed. You can also adjust the properties.
- Text can be moved, the properties can be changed, and you can edit the text string by right clicking on the text item in the view area and selecting Edit Markup from the right click menu. The cursor is placed at the end of the string, and you can only delete characters, add characters, and backspace.
- Dimension labels (Coordinate and Distance) can have only the location of the text label moved. You can also change the properties.

Deleting Markups

Select the markup in the display area or in the markup tab list and press the delete key, or select the markup in the display area and right click and select delete from the pop up menu.

Adding Hyperlinks to Markups

Select any markup while in markup mode and enter any valid link value in the Link: field of the markup tab. This can be a web URL such as www.hds.leica-geosystems.com or a file location on disk such as c:\temp\temp.txt.

The link value does not appear in the scene. To activate the link, you must go to the View Mode and double click on the object with the link.

Markup Properties

When any markup is selected you can set the properties for this entity on the markup tab. Different markup types have different markup properties that apply. For instance, an Arrow Line does not have any valid Font Size property.

The available properties are:

Unit: The unit of measure for dimension labels

Color: Main color for line work

Fill Color: Background fill color for Circle, Rectangle, Text and Dimension Label text.

Transparency: A percentage where: zero = opaque and 100 = totally transparent (invisible)

Line Thickness: A relative factor controlling thickness of main line work of all markups except text.

Font Size: For all markups with string characters

Link: any valid hyperlink location

Markup Metadata

When markups are created they retain some Metadata. You can see this data displayed in the markup tab. The Metadata retains the date the item was created and the Windows login user name that created the markup.

Setting Defaults for Markups

At anytime you can select the “Set As Default” button in the markup tab to save the current properties settings as the default properties to use for all new markups. This setting is saved for all TruView sessions on the current computer.

To share these settings with other users see [Sharing Settings and Markups](#).

Measurements Tools

Two measurement types are available in markup mode.



Measurements - Tools

XYZ icon - Click this icon and then click the point for which you want coordinates.

Ruler icon - Click this icon and then click the points between which you want the distance.

The color "red" highlights the current measure or the selected measurement.

Measurements are retained until you switch to Markup or View mode. When you switch modes, all the measurements are deleted. (Distances between points and coordinate points are retained in Markup mode.)

Tabs

Tabs

This section discusses the fields in the three different tabs:

- [View](#) - Selecting this tab puts you in View mode, which allows you to jump from view to view. When you go to each saved view you can see the markups for that view. If any of these markups have a hyperlink (a feature allowed in markup mode) then you can navigate to those links by clicking on the markup in this mode.
- [Markup](#) - Selecting this tab puts you in Markup mode, which lets you place markups like rectangles or text. When you are in markup mode the view is frozen like a screen capture or snapshot. Markups are placed as a group together on a saved (frozen) view. You can have many saved views, each with its own group of markups and its own name.
- [Measure](#) - Selecting this tab puts you in Measure mode, which lets you move your viewpoint in, out and around the scene so you can find and look at your exact area of interest. It also lets you measure between two points or get the coordinate information for a single point. However, this mode does *not* place those values as permanent markups. They disappear if you change modes. It only reports them to the properties table at the left of the screen. If you want to place a dimension markup, use Markup Mode.

View Tab

Selecting this tab puts you in View mode, which allows you to jump from view to view. When you go to each saved view you can see the markups for that view. If any of these markups have a hyperlink (a feature allowed in markup mode) then you can navigate to those links by clicking on the markup in this mode.

The screenshot shows a software interface with three tabs: View, Markup, and Measure. The View tab is selected and contains a list with one item, 'View#100'. Below the list are three sections: 'View Properties' with fields for Created (12/19/2006), User (Zate), and Name (View#100), and buttons for Delete and Update; 'Markup Data' with a label 'Client side marks: markup.xml' and buttons for Import, Export, Load From Server, Load Local, and Clear All; and 'Utility' with a Print button.

View Tab

View Display

List of available named views (e.g., View#100)
Clicking on a view displays that view.

View Properties

Created: - Date when this view was created.
User: - Name of the person who created this view.
Name: - Name of the currently selected view.
Delete button - Click to delete the selected view.
Update button - Click to rename the displayed view.

Markup Data

Client side marks: or **Server side marks:** Indicates the location of the currently loaded markup files, e.g., *markup.xml*.

Import : Click to import markups in an XML file, sent to you by someone, into your current TruView session. See [Importing Markups](#) for details.

Export : Click to create an XML file of your current markups to send to someone. See [Exporting Markups](#) for details.

Load from Server : Click to load the markup.xml stored on a server, other central location, or the Web, which contains markups that you want to load in your current view.

1. TruView displays a dialog to confirm that you want to overwrite the existing views and markups.
2. TruView clears all existing views and markups.
3. TruView searches markup.xml in the same place where you put the Scanworld's published data. If this file does not exist, then nothing will be loaded. Otherwise, it will load the saved views and markups from the file.

(The markups from the server overwrite the current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Load Local : Click to load (UID).xml from your local machine. This file is created automatically when you close TruView.(The last auto-saved markups overwrite the current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Clear All : Click to clear the scene of all markups. See [Clear All Markups](#) for details.

Note: Server refers to the TruView directory on the local PC or on the intranet or internet.

Note: Client refers to C:\Documents and Settings\((User Name))\Local Settings\Application Data\TruView\((UID)).xml

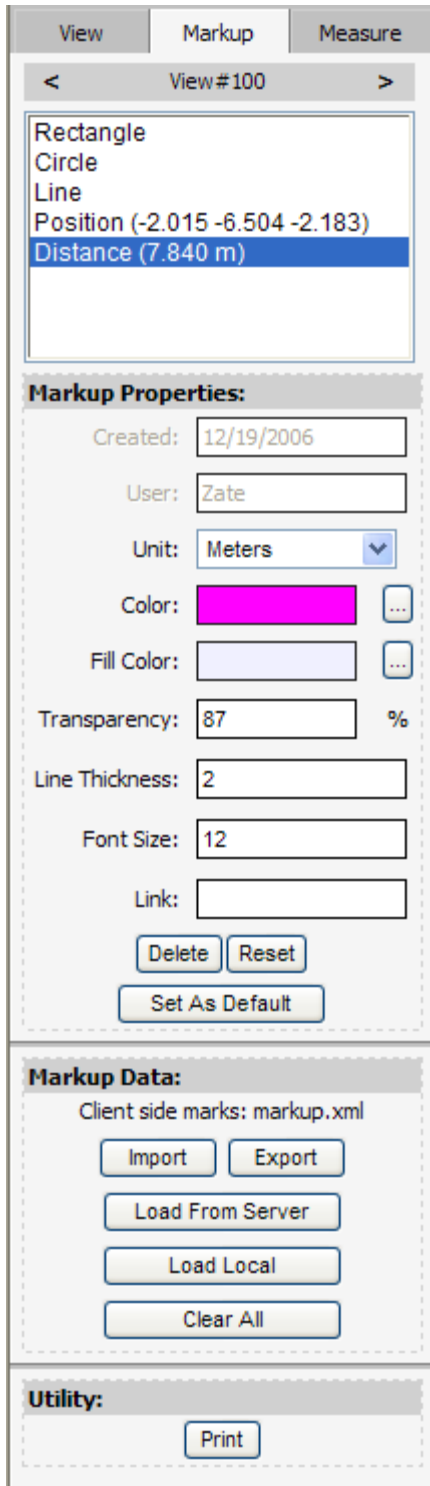
For sharing markup data, see "[Sharing Settings and Markups](#)".

Utility

Print: Click to print the current view.

Markup Tab

Selecting this tab puts you in Markup mode, which lets you place markups like rectangles or text. When you are in markup mode the view is frozen like a screen capture or snapshot. Markups are placed as a group together on a saved (frozen) view. You can have many saved views, each with its own group of markups and its own name.



Markup Display

Current named view (e.g., < View#100 >)

List of drawing objects (Line, Circle, Rectangle, Position, Distance) in the current view. Clicking on an item in the list highlights that object in the view.

Markup Properties

Created: Date when a specific markup was created. It is only displayed when a markup is selected.

User: Name of the person who created a specific markup. It is only displayed when a markup is selected.

Unit: Choice of meters, centimeters, feet and inches

Color: Color chosen for lines, shapes and text

Color palette button: Click this button to display a palette of colors. Choose a new color from this palette for lines, shapes and text.

Fill Color: Color chosen for filling shapes. The actual fill color is the transparency percentage of this color.

Fill Color palette button: Click this button to display a palette of colors. Choose a new color from this palette. The actual fill color is the transparency percentage of this color.

Transparency (%): This value determines the shade of the fill color. (A percentage where: zero = opaque and 100 = totally transparent (invisible).)

Line Thickness: The thickness of the line in points

Font Size: The size of the type in points

Link: Enter a URL to a selected markup. (You cannot jump to it from this tab. It is only activated for the View tab.)

Delete button: Click to delete a selected markup (line, text, shape, coordinate, etc.)

Reset button: Click to reset the properties of the markups to their original default values.

Set As Default button: Saves the chosen settings for future use in this mode.

Markup Data

Client side marks: or **Server side marks:** Indicates the location of the currently loaded markup files, e.g., *markup.xml*.

Import : Click to import markups in an XML file, sent to you by someone, into your current TruView session. See [Importing Markups](#) for details.

Export : Click to create an XML file of your current markups to send to someone. See [Exporting Markups](#) for details.

Load from Server : Click to load the markup.xml stored on a server, other central location, or the Web, which contains markups that you want to load in your current view.

1. TruView displays a dialog to confirm that you want to overwrite the existing views and markups.
2. TruView clears all existing views and markups.
3. TruView searches markup.xml in the same place where you put the Scanworld's published data. If this file does not exist, then nothing will be loaded. Otherwise, it will load the saved views and markups from the file.

(The markups from the server overwrite the current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Load Local : Click to load (UID).xml from your local machine. This file is created automatically when you close TruView.(The last auto-saved markups overwrite the

current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Clear All : Click to clear the scene of all markups. See [Clear All Markups](#) for details.

Note: Server refers to the TruView directory on the local PC or on the intranet or internet.

Note: Client refers to C:\Documents and Settings\{User Name}\Local Settings\Application Data\TruView\{GUID}.xml

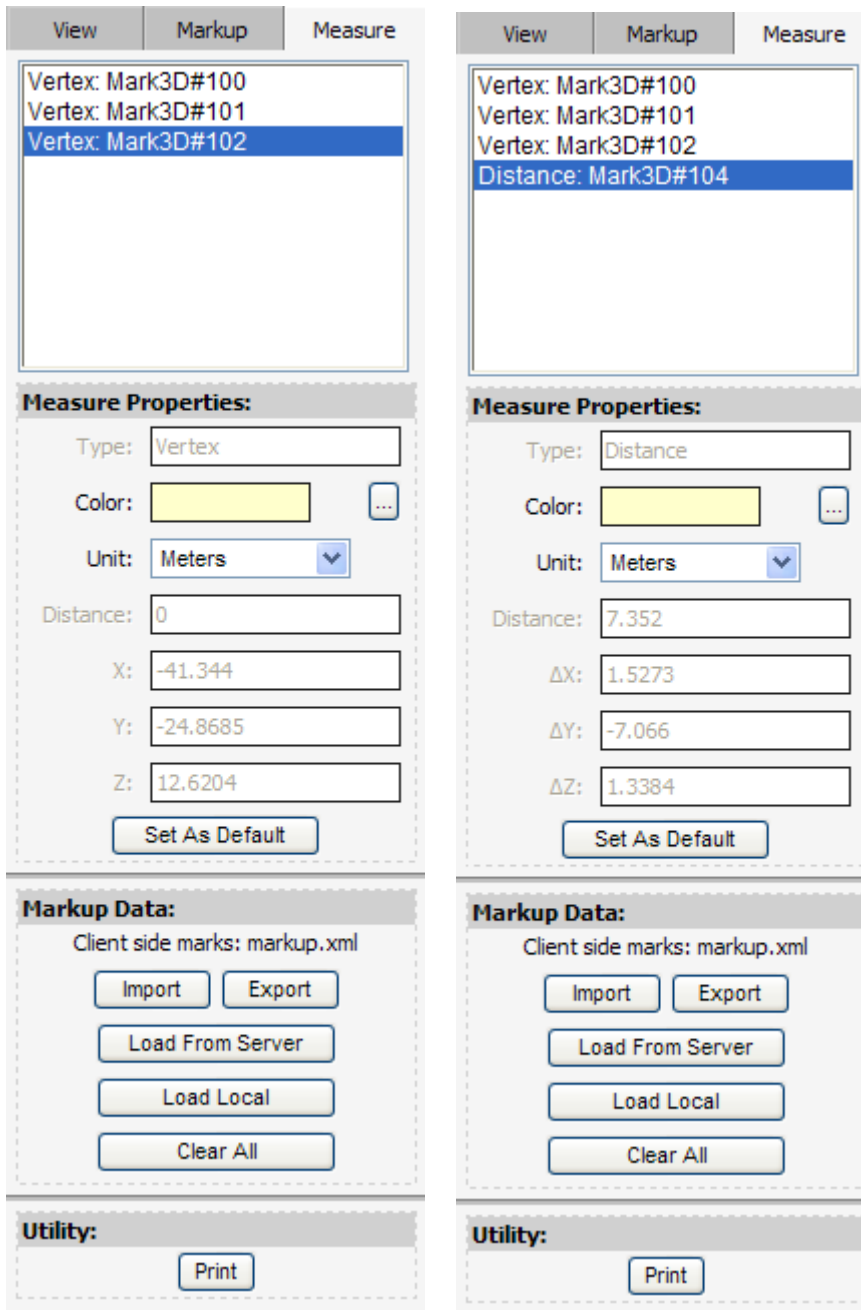
For sharing markup data, see "[Sharing Settings and Markups](#)".

Utility

Print: Click to print the current view.

Measure Tab

Selecting this tab puts you in Measure mode, which lets you move your viewpoint in, out and around the scene so you can find and look at your exact area of interest. It also lets you measure between two points or get the coordinate information for a single point. However, this mode does *not* place those values as permanent markups. They disappear if you change modes. It only reports them in the properties table at the left of the screen. If you want to place a dimension markup, use Markup Mode.



Measure Tab with Point Coordinates (Vertex) Chosen

Measure Tab with Measure between Two Points (Distance) Chosen

Measure Display

List of Vertex and Distance objects in the current view. Clicking on an item in the list highlights the object and displays its values below.

Measure Properties

Type: Distance (Distance between two selected points is displayed.): or Vertex (Coordinates of a point are displayed.)

Color: Shows the color of the objects in the current view.

Color Palette Button: Click this button to display a palette of colors. Choose a new color from this palette for lines and points in the current view.

Unit: Select one of Centimeters, Meters, Inches, Feet

Distance: Zero is displayed if a coordinate point (XYZ) is chosen.

Distance between two selected coordinate points is displayed.

Δx : Distance in the x direction between two chosen points.

Δy : Distance in the y direction between two chosen points.

Δz : Distance in the z direction between two chosen points.

x: X coordinate of the chosen point.

y: Y coordinate of the chosen point.

z: Z coordinate of the chosen point.

Set As Default button: Click this button to save the currently selected values for units and color.

Markup Data

Client side marks: or **Server side marks:** Indicates the location of the currently loaded markup files, e.g., *markup.xml*.

Import : Click to import markups in an XML file, sent to you by someone, into your current TruView session. See [Importing Markups](#) for details.

Export : Click to create an XML file of your current markups to send to someone. See [Exporting Markups](#) for details.

Load from Server : Click to load the markup.xml stored on a server, other central location, or the Web, which contains markups that you want to load in your current view.

1. TruView displays a dialog to confirm that you want to overwrite the existing views and markups.
2. TruView clears all existing views and markups.
3. TruView searches markup.xml in the same place where you put the Scanworld's published data. If this file does not exist, then nothing will be loaded. Otherwise, it will load the saved views and markups from the file.

(The markups from the server overwrite the current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Load Local : Click to load (UID).xml from your local machine. This file is created automatically when you close TruView.(The last auto-saved markups overwrite the current markups. You must export the current markups if you want to save them.) See [Exporting Markups](#) for details.

Clear All : Click to clear the scene of all markups. See [Clear All Markups](#) for details.

Note: Server refers to the TruView directory on the local PC or on the intranet or internet.

Note: Client refers to C:\Documents and Settings\((User Name))\Local Settings\Application Data\TruView\((GUID).xml

For sharing markup data, see ["Sharing Settings and Markups"](#).

Utility

Print: Click to print the current view.

Right Mouse Button Options - (Modes)

View Mode

Clicking on the Right mouse button, when in *View* mode gives you the following options:

Markup - Clicking this changes the mode to Markup.

Measure (Pan/Zoom) - Clicking this changes the mode to Measure.

Print - Clicking this prints the current TruView display.

Markup Mode

Clicking on the Right mouse button, when in *Markup* mode gives you the following options:

Rectangle - Clicking this allows you to draw a rectangle in the view.

Circle - Clicking this allows you to draw an ellipse or circle in the view.

Line - Clicking this allows you to draw a line in the view.

Distance - Clicking this allows you to measure the distance between two points in the view.

Position - Clicking this allows you to obtain the coordinates of a point that you select in the view.

Unlock - Clicking this changes a 2D view to a 3D view. When in Markup Mode, you can return to Pan\Zoom Mode by selecting Unlock.

View/Hyperlink - Clicking this changes the mode to View.

Pan/Zoom - Clicking this changes the mode to Measure.

Print - Clicking this prints the current TruView display.

Measure Mode

Clicking on the Right mouse button, when in *Measure* mode gives you the following options:

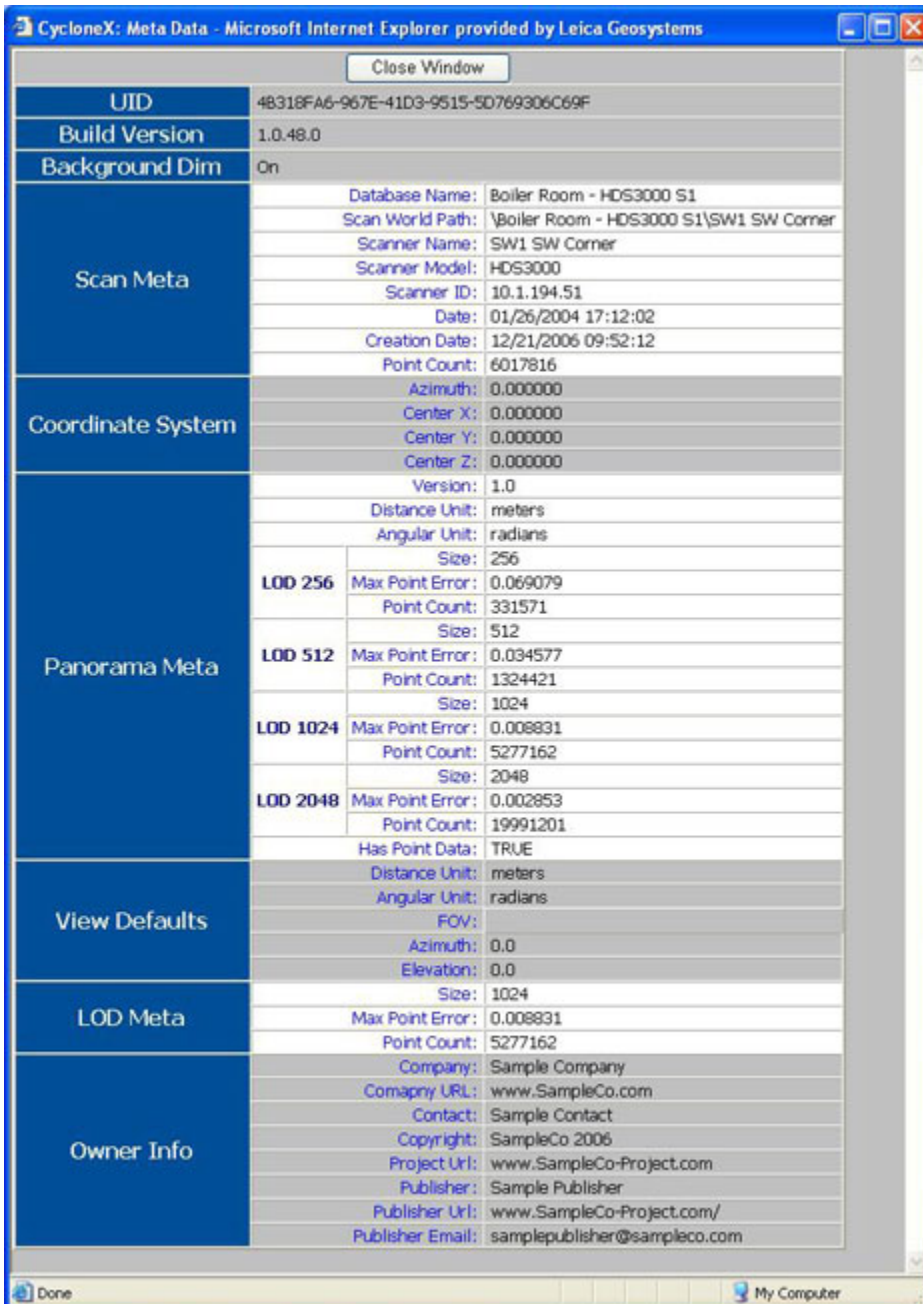
Markup - Clicking this changes the mode to Markup.

Print - Clicking this prints the current TruView display.

Metadata and Help

Metadata Button

Clicking on the Metadata button displays the Metadata screen. It contains information about the TruView scene that is open. Following is an example of a Metadata screen.



Metadata Screen – Example

UID – Unique ID for the scene. This is generated automatically and cannot be changed in TruView.

Background Dim – Dims the parts of the background for which a point cannot be picked, because it was not part of the Scanworld. This is always ON and cannot be turned off.

Scan Meta – Data about the Scanworld

Coordinate System – Coordinates of the scanner location for the Scanworld

Panorama Meta – Shows the maximum error, point count within the display, and size for the given LOD value.

View Defaults – Default values when the view is opened

LOD Meta – Default values when the screen is opened

Owner Info – Information about the publisher of the Scanworld

Clicking the right mouse button and choosing “Export to Microsoft Excel” allows you to save the metadata to an Excel spreadsheet.

Clicking the right mouse button and choosing “Print” allows you to print the metadata.

Help Button

Click on the Help button to display TruView Help and obtain information about the version of TruView that you are using.

Settings

Several settings can be used to manage the display attributes of the markups in TruView.

You can control:

- Units of measure
- Color (of all entities)
- Fill color (of rectangles and circles)
- Transparency (of fill color)
- Line thickness (of circles, rectangles and arrow lines)
- Font size (of text)

You can change these values for each entity by selecting it for editing and changing the values in the markups panel. To set the current values as the default values, simply select the “Set As Default” button in the markups panel.

Sharing Default Settings With Other Users

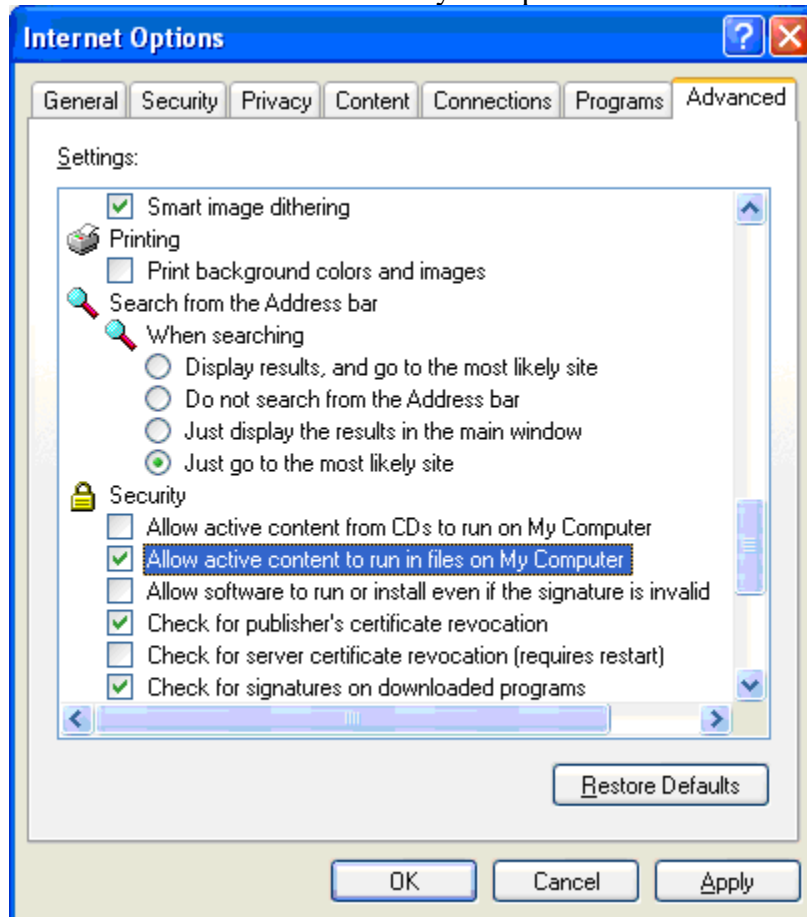
If you have a set of default settings that you want to share with other users, then you need to find the *defaults.xml* file on your system and send a copy to them. After they place it in the correct location, they will inherit your default settings. This file (*defaults.xml*) is on your system at *C:\Documents and Settings\{User Login Name}\Local Settings\Application Data\TruView*.

FAQ / Troubleshooting

Q: After clicking on the Scanworld triangle, I got the message: "Leica TruView Plug-In Not Loaded", but I had installed it. What is the problem?

A: It is possible that Windows security is not allowing you to run ActiveX. If this is the cause, then there is a yellow bar under the tool bars of Internet Explorer.

- a. Click it to allow ActiveX components to run for this session of Internet Explorer. Then TruView will run.
- b. To permanently allow ActiveX to run, configure Internet Security to run by going to **Start > Control Panel > Security Center > Internet Options > Security settings > ActiveX controls and plug-ins**, and select **Enable**.
- c. You can adjust Internet Explorer to allow TruView ActiveX content to display on your computer by selecting the **Tools > Internet Options...** menu of Explorer, open the Advanced Tab and in the Security section add a check mark to the "Allow active content to run in files on My Computer".



Note: This problem can occur only if you are accessing a Scanworld on your local computer drive.

Q: Why doesn't my TruView scene open when I click on a triangle icon in the scene?

A: This is probably because, either you are not using Internet Explorer, or you do not have ActiveX enabled. Internet Explorer 6.0 or later is required, and ActiveX must be enabled. Only Internet Explorer is supported at this time.

Q: A link was entered in Markup mode, and the link is displayed when the object is selected. Why is there is no jump to the link? (The link target is not displayed.)

A: Navigating to links is only active in View Mode. Otherwise there would be no way to select the item for editing in Markup Mode.

Q: What is the meaning of the UID code (e.g., A47F0C8D-F9A3-4C45-9EEE-1734DF60AF20)?

A: The UID (Unique ID) code is an internal unique number that TruView uses to keep the markups paired to the right data sets. Each TruView panoramic scene is assigned a unique ID and the markup files also inherit this ID so they can be associated with the correct data set the next time you open things up.

Q: What is LOD?

A: LOD is the Level of Detail being displayed. It is proportional to the maximum point error. Zooming in or out changes the LOD that is displayed.

Q: Why does the fill color rectangle not display the actual fill color?

A: The fill color box is not affected by the current transparency settings. It displays the starting color, and the actual fill color is the transparency percentage of that color.

Q: What is the default transparency?

A: The initial system default transparency is 87%. You can change the default value when you save your defaults.

Q: Why does part of the image darken when I try to select a coordinate value for a point?

A: If the scanner data has image data included for areas that were not scanned, such as the sky, then there will not be any points you can measure to. Therefore, the system automatically darkens the non-measurable points so you can see the points that are

measurable. This could be the entire sky or even stripes of data right in the main areas you wish to dimension. This depends on the density of the scanning and the scanning methods used to collect the data.

Q: In Markup View, I change the Unit setting from meters to feet, but the units in the view do not change. Why?

A: The units are used only from the time they are set until they are changed. New markups use the new Unit setting (feet), but the old markups use the old Unit setting (meters). The Unit setting is not applied globally.

Q: How do I change the units for an object?

A: Click on the object. Then choose your new units from the Unit drop-down menu. The units will be changed for the object that you selected and for any new objects that you create.

Q: If a markup object has a fill color, then clicking from Markup to View and back to Markup loses the fill color. It reverts to the previous fill color. Why?

A: If you leave the Markup View, then when you return, the default values, including the fill color, are displayed. To keep the new fill color, save the values as the default. Then, the new fill color is the new default and is displayed when you return to Markup View.

Q. My 3D Markup is not very accurate (repeatable), even though the precision is high. Why?

A. The 3D Markup can not be very accurate unless the view is really zoomed in. Zoom in as much as possible.

Q. How can I measure from a point in front of me to a point behind me?

A. Pick the first point in front, then pan to the back and choose the second point.

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