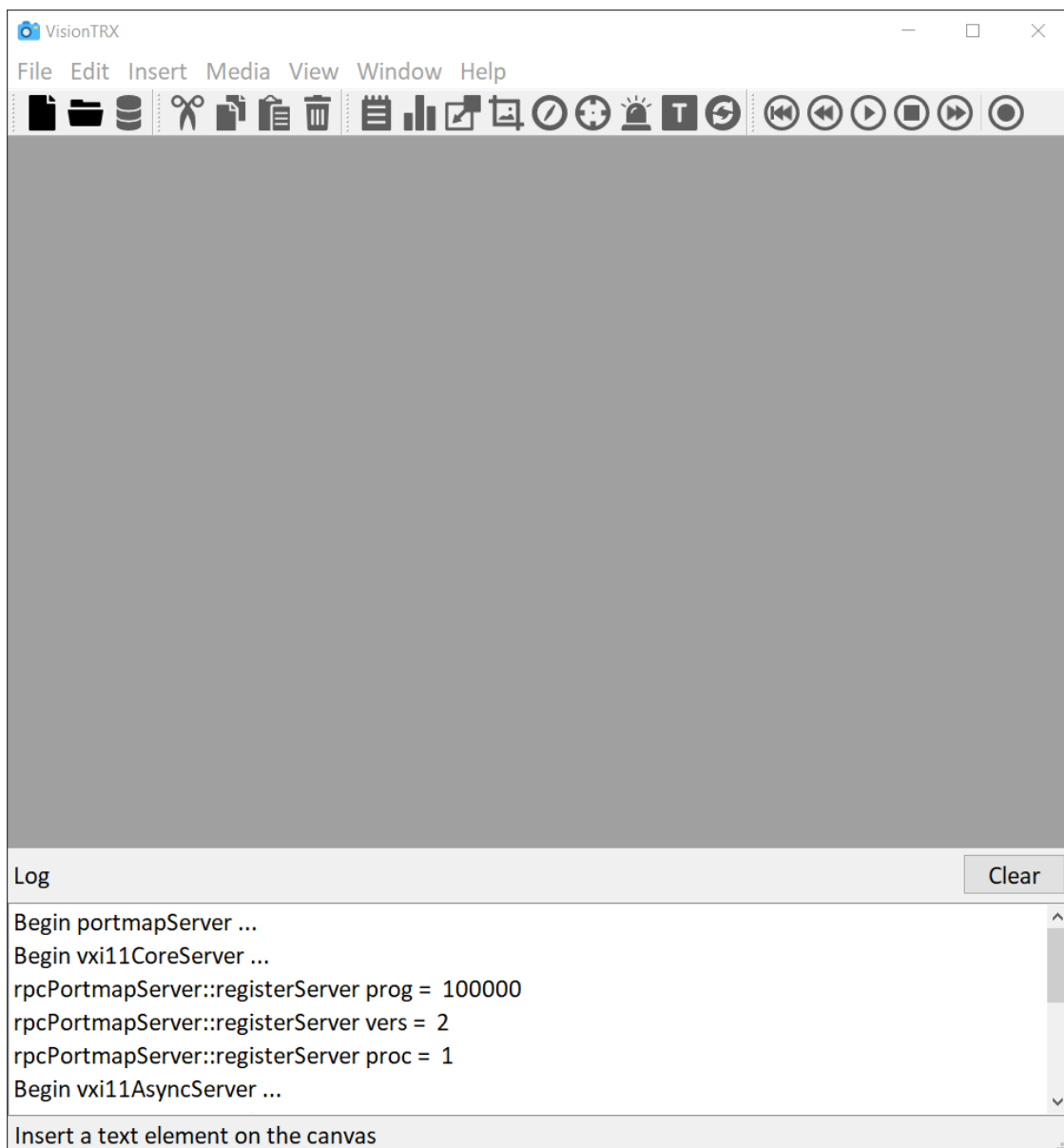



## How to Navigate VisionTRX

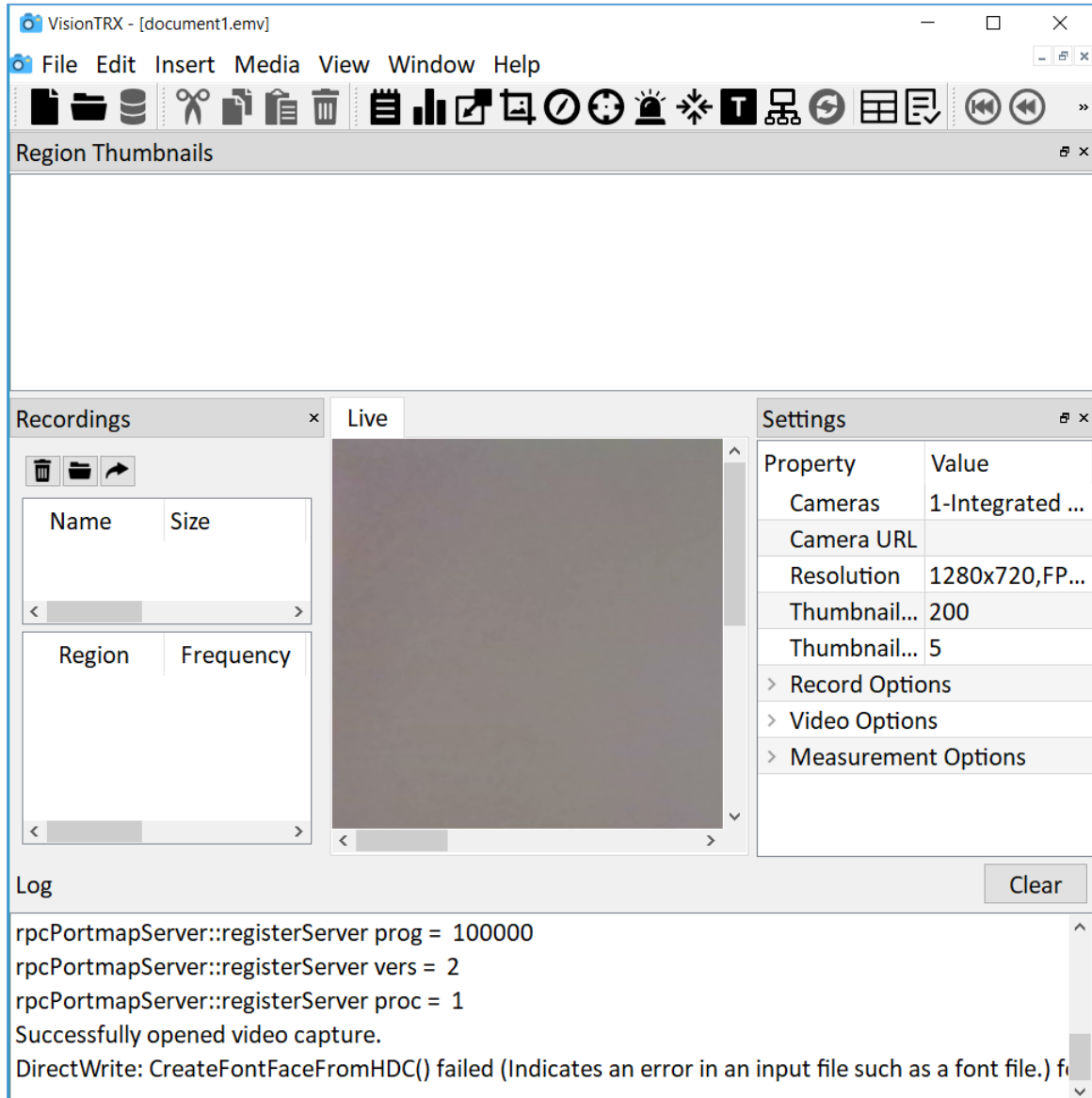
1. Hello everyone, this video will explain how to navigate VisionTRX.
2. First, plugin your VisionTRX key and open VisionTRX.




3. You will see an empty window:










4. Next, go to the toolbar menu and select the **New** icon  to create a new document. You should see the following layout:



5. The new profile will automatically connect to your default camera (EX: Integrated Webcam) as shown in the settings for the Live View on the right hand side under the **Cameras** property.
- The camera feed displays on the **live tab** in the middle section of the display and the **log window** at the bottom shows that the camera “Successfully opened a video capture” if the connection is working.
  - Other camera feed options include:







- i. Connect any compatible USB camera to your computer and select it from the **Cameras** property dropdown.
  - ii. You can connect to a network camera using the **Camera URL** property.
    1. Please use the Cameras documentation for the correct URL path.
  - iii. Load a previously recorded video by putting the file path into the **Camera URL** property.
    1. Only video files you can use are MP4 or WMV.
    2. Will have to save and reopen the profile to view the video in the live view.
6. Once your camera is selected, please save your profile under a new name by going to the **File** menu and clicking **Save As**.
- a. This will change the document name at the top of the program window and effect the future naming conventions for recordings.
  - b. Remember to save regularly with the **Save** icon  or **Ctrl + S** after changing any setting.







7. Next we will go over the media actions :

- a. First you can use the **Record**  icon to start and stop recording measurements from the regions.
  - i. The icon will turn red  when a recording is in progress.
  - ii. Recordings will appear in the **Recordings View** with the name of the profile and a Date/Time stamp.
  - iii. All recordings will **log** when they start and display the file save path, and it will log again when the recording stops.
  - iv. To view a recording, double click it and it will be shown tabbed next to the **Live View**.
- b. Use the **Stop**  and **Play**  icons to freeze or start the video feed.
- c. And lastly you can skip to the start  (**Skip Begin**),  rewind (**Skip Back**), and  fast-forward (**Skip Forward**).

8. Finally, we'll go over the region actions



- a. The **Text** icon  creates a new text box on the video background.
  - i. This is commonly used to display relevant static information such as the DUT, company name, etc.
  - ii. Or you can use the dynamic fields to display updates in real time of the date/time stamp, current amplitude or frequency, or other TILE event triggers.
- b. The **Histogram** region  compares an area on the live video to an original snapshot of the area using a correlation comparison as the measurement method.
  - i. Use this type of measurement when color changes are not important or for general motion detection.
  - ii. Note that this type of measurement is more susceptible to light variations.
- c. The **Detect Color** region  looks for changes in color specified by a detection color.
  - i. Use this type of measurement when color changes are important, such as monitoring an indicator light.
- d. The **Structural Similarity** region  compares the original image to subsequent frames using the algorithm Structural Similarity.
  - i. Use this type of measurement when the lighting changes or if the size of the image may change.
- e. The **Detect Movement** region  detects movements based on a detection color chosen by the user.
  - i. Use this type of measurement when the movement of colored objects are important, such as a speedometer needle on a dashboard.
- f. The **Align Target** region  positions the regions based on a known structure in the video.
  - i. Use this region to place regions over specific areas of interest and track movement or remove variations in position.

- ii. Position all other regions relative to this region when the test starts. A know target structure can then be used to align the video in a consistent manner for repeat testing of specific devices.
- g. The **Measure Frequency** region  measures the frequency of a flashing lights.
  - i. Use this type of measurement when the rate of a flashing light must be consistent, such as a taillight or warning LED on an instrument.
- h. The **Track Object** region  tracks a specific object in the video stream that will track objects from a snapshot image.
  - i. Use this region type to track items with specific structures that are difficult to detect with other methods, such as color detection. Movement of the item can then be tracked regardless of rotation, and lighting.
- i. The **Optical Character Recognition (OCR)** region  scans the area of interest for text and numbers, and then converts the characters to a string for comparison.
  - i. Use this type of measurement when a digit change monitor is required.
- j. The **Threshold Detect** region  will detect changes in light intensity without regard to color.
  - i. Use this region to monitor light source intensity such as an LED or light-bulb.
- k. To reset a region's settings back to default, select the region in the **Live View** Tab and then select the **Reset** icon .
- l. And lastly, if you wish open a summary of the all the regions' parameters such as position, channel number, etcetera then click the **Open Summary** icon .