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Action Required:	None, Information Only				

Understanding Digital Watermarks

A **digital watermark** is a kind of marker covertly embedded in a noise-tolerant signal such as audio or image data. It is typically used to identify ownership of the copyright of such signal. “Watermarking” is the process of hiding digital information in a carrier signal; the hidden information should, but does not need to, contain a relation to the carrier signal. Digital watermarks can also be used to verify the authenticity or integrity of the carrier signal or to show the identity of its owners.

Our watermark information is embedded in the I-frame of the video data. You can see the watermark information via our own VSPlayer.



Figure 1, Downloaded Video File

1. Use the VSPlayer to play a downloaded video file, as shown in **Figure 1, Downloaded Video File**.
2. Right click on the screen, then click “Water Info” as shown in **Figure 2, Water Info Selection**.

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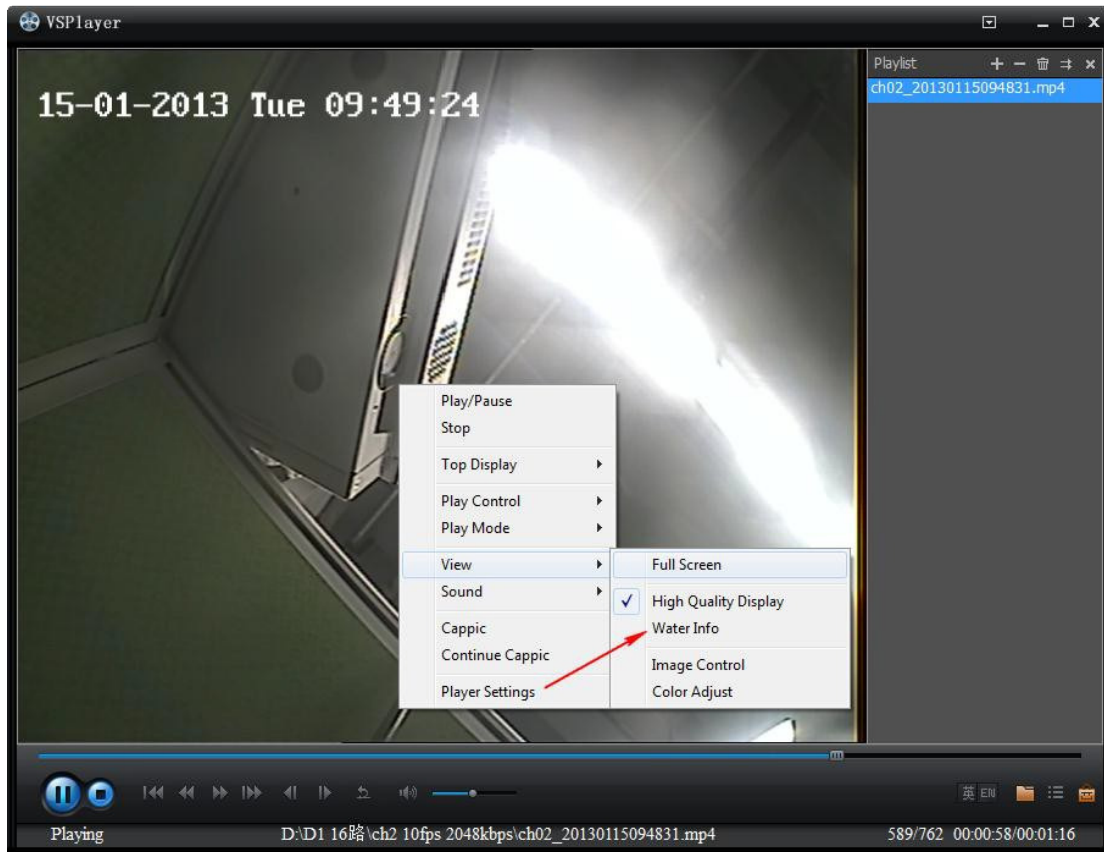


Figure 2, Water Info Selection

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Figure 3, Watermark Information

Watermark Information: The watermark information will be displayed in a window, as shown in Figure 3, Watermark Information. If you modify the video (e.g., rotation, scaling, compression, etc.), the watermark information will change.

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Figure 4, Modified Video File

Modified Video File: In **Figure 4, Modified Video File**, another video is merged with the original video file. Repeat Step 1 and Step 2, above, to see the new watermark information.

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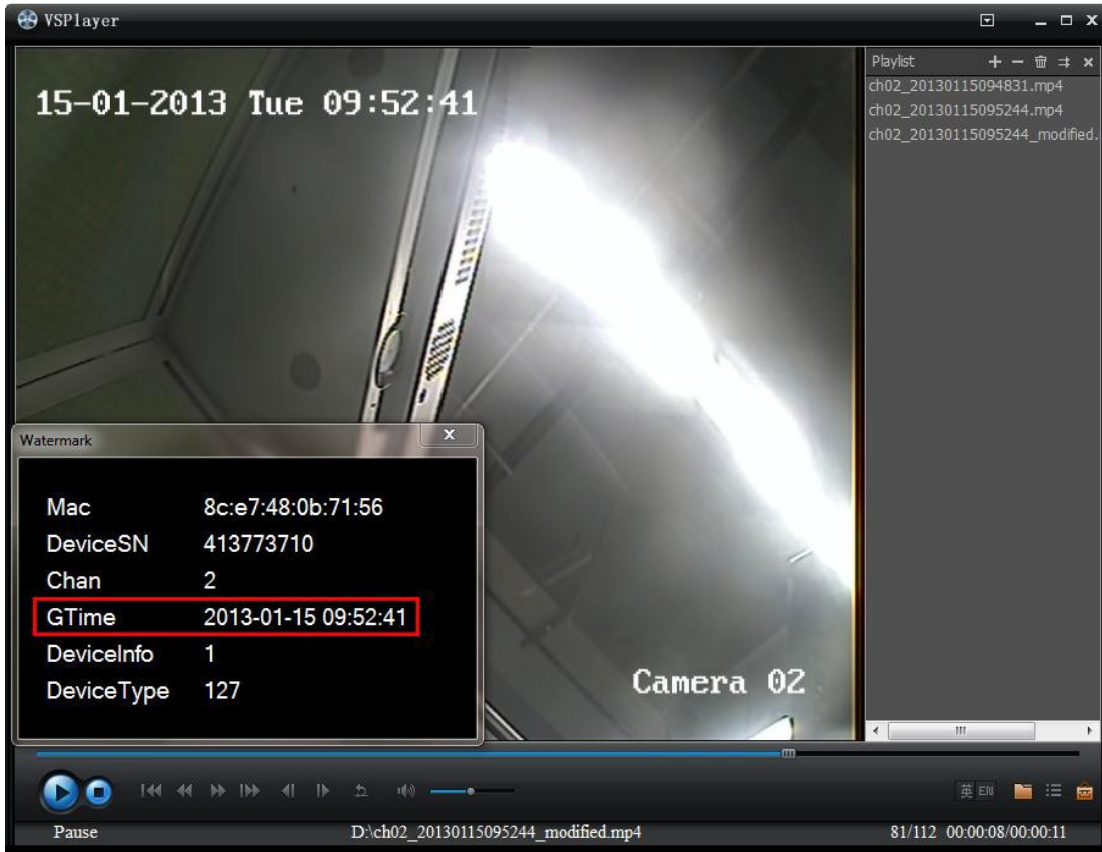


Figure 5, New Watermark Information

Modified Watermark Information: You can see that the watermark information has changed. The GTime has advanced slightly. By examining the watermark information, you can see if the original video file has been modified.