

MDVR PLAYER MANUAL

FMI-CF



FMI-HD



Spec. American Made DVRs
Bid American Made DVRs



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Overview

The MDVR Player is a Windows application that allows you to get the most from the Immersive Media line of Mobile Digital Video Recorders (MDVRs). The MDVR Player lets you play recorded files that contain video, audio, and metadata (time, date, GPS, accelerometer, etc). It also can connect to a MDVR over a TCP/IP network and stream a live view of what is being seen by the cameras and sensors. Streaming is available even when the MDVR is not recording.

- MDVR-CF – Single Channel System
- MDVR-RHD – 2 Channel System
- MDVR300 series – 4 Channel System

Minimum System Requirements:

Optimal:

- Intel Core 2 Duo, 2.0GHz (or AMD X2 or FX class CPU)
- 2 GB RAM
- Windows XP/SP2
- 7200 RPM Hard Drive or faster

Minimal:

- Intel Core Duo, 1.8GHz (or AMD X2 or FX class CPU)
- 1 GB RAM
- Windows XP/SP2

Installation Procedure

Turn on your computer or if your computer is already on, close any programs that are running.

Insert the installation CD into your computer's CD-ROM drive. The CD is automatically launched and the setup program begins.

If the setup program does not automatically begin, browse to the installation CD using Windows Explorer and double-click on the MDVR.msi file.

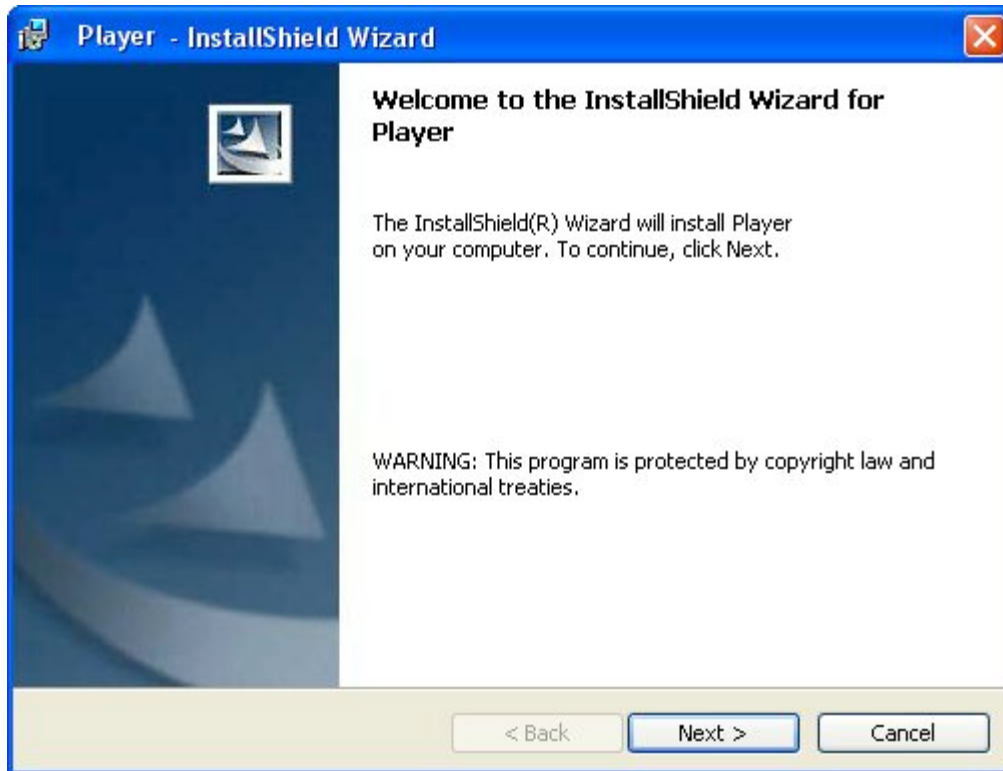


Figure 1 - Install Dialog

Press the Next button on the Setup Wizard to begin the setup process.

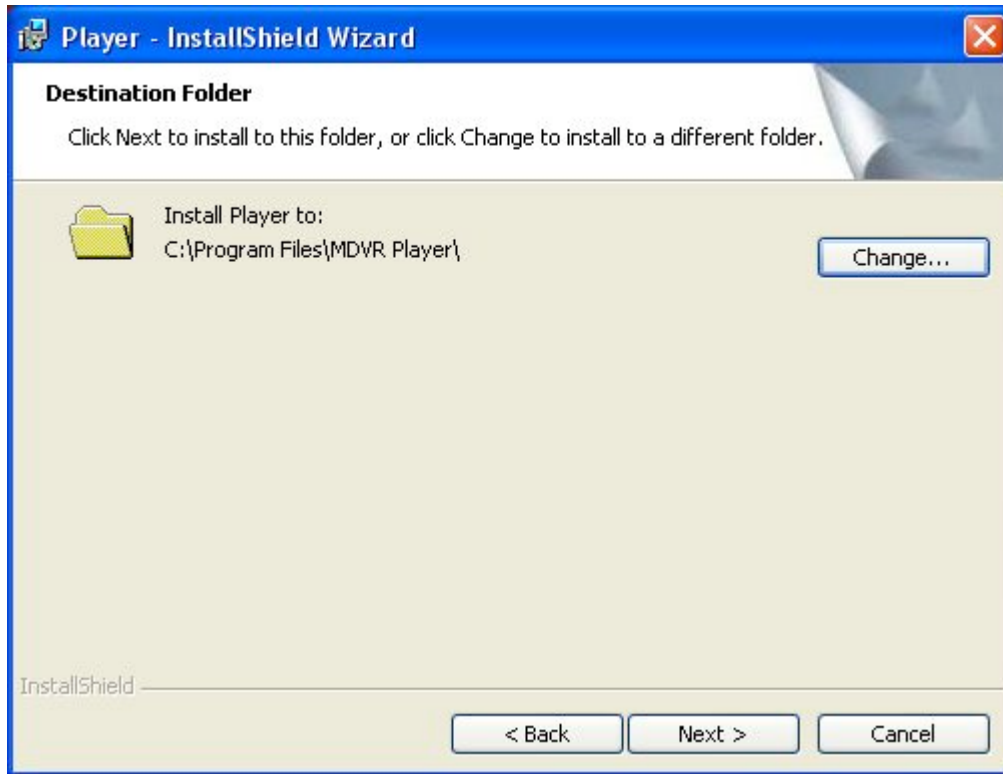


Figure 2 - Destination Directory

Choose an install location or use the default directory settings and click “Next”. The installer will now begin extracting files to the designated location.

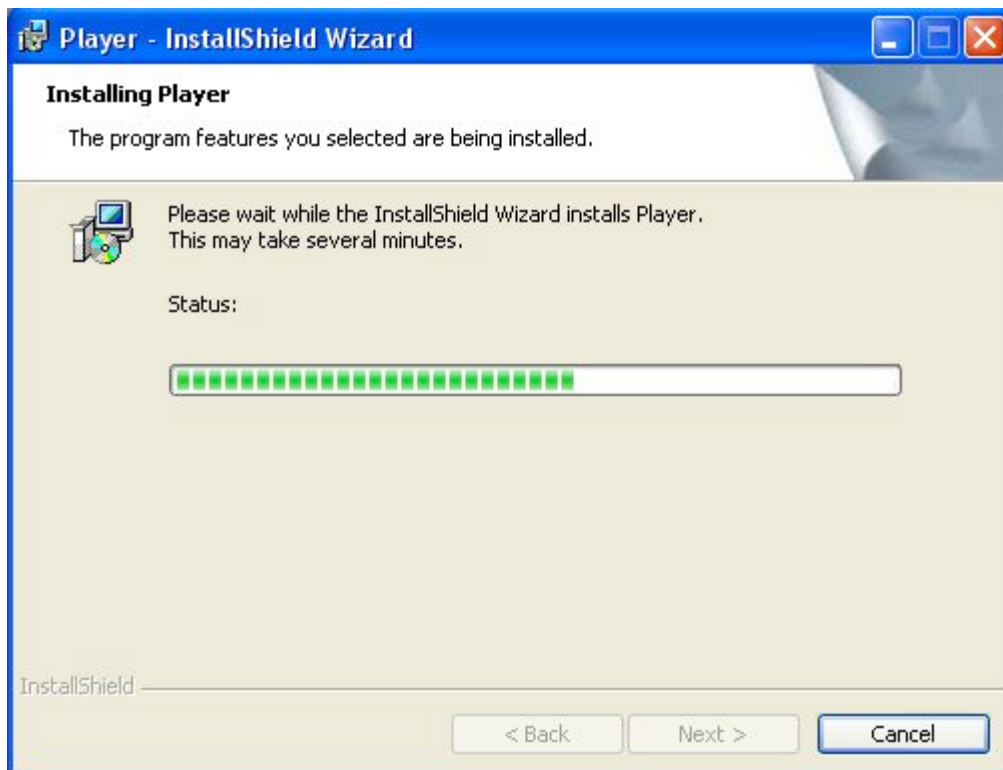


Figure 3 - Install Progress

Note: The installation CD will install the MDVR Player 2.0 program as well as the PICVideo™ MJPEG Codec v3, which is required to view and save MDVR video files.

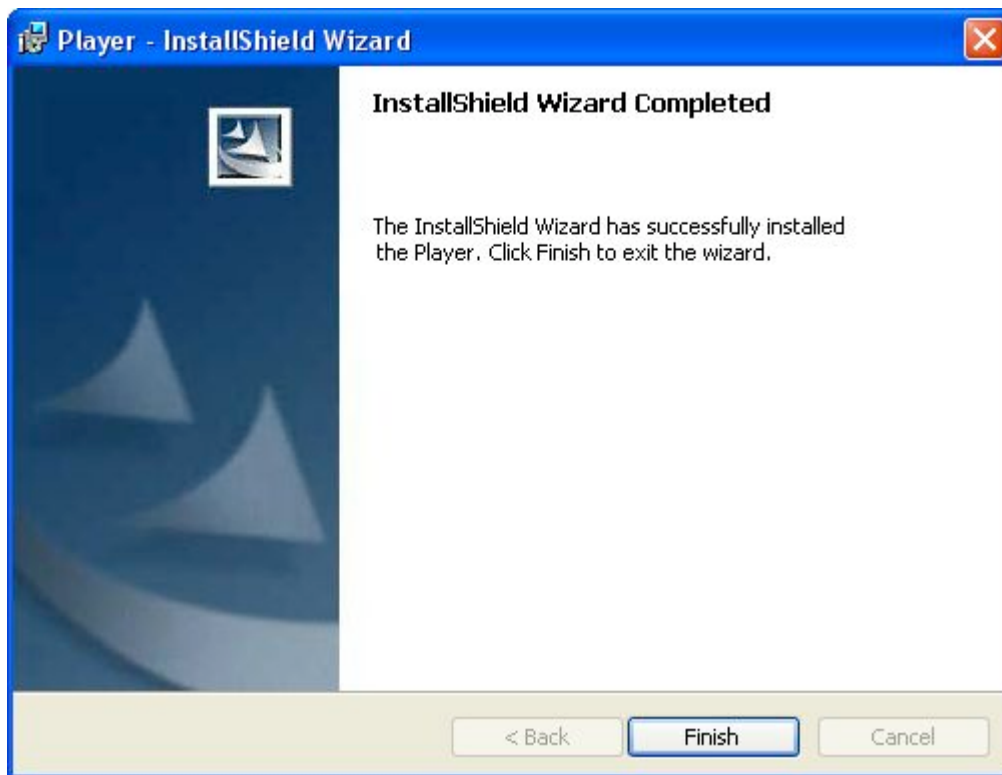


Figure 4 - Completion

The installation is now complete.

Using the Player

1. To launch the Player, select the Windows Start button on your Taskbar.
2. Click All Programs → MDVR Player → Player Application
or in the program group that was determined during setup.
3. Once opened, the user interface resembles the following:

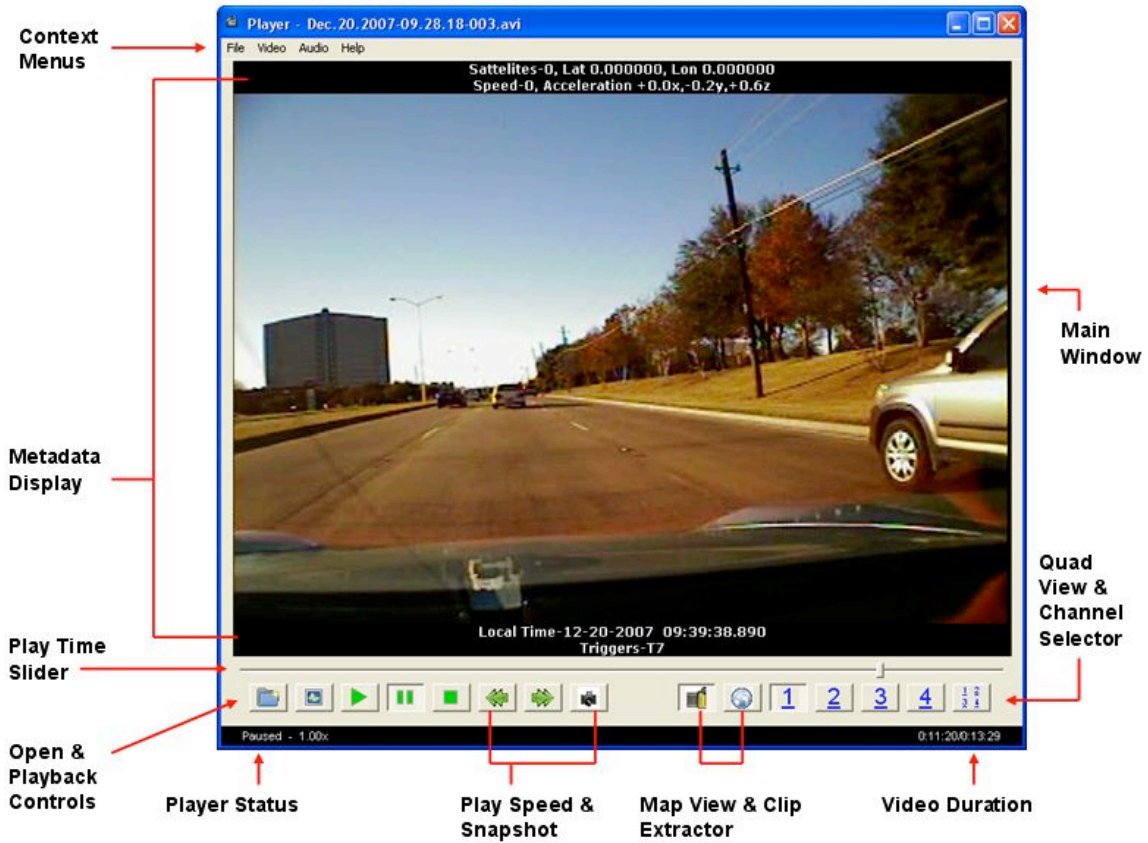


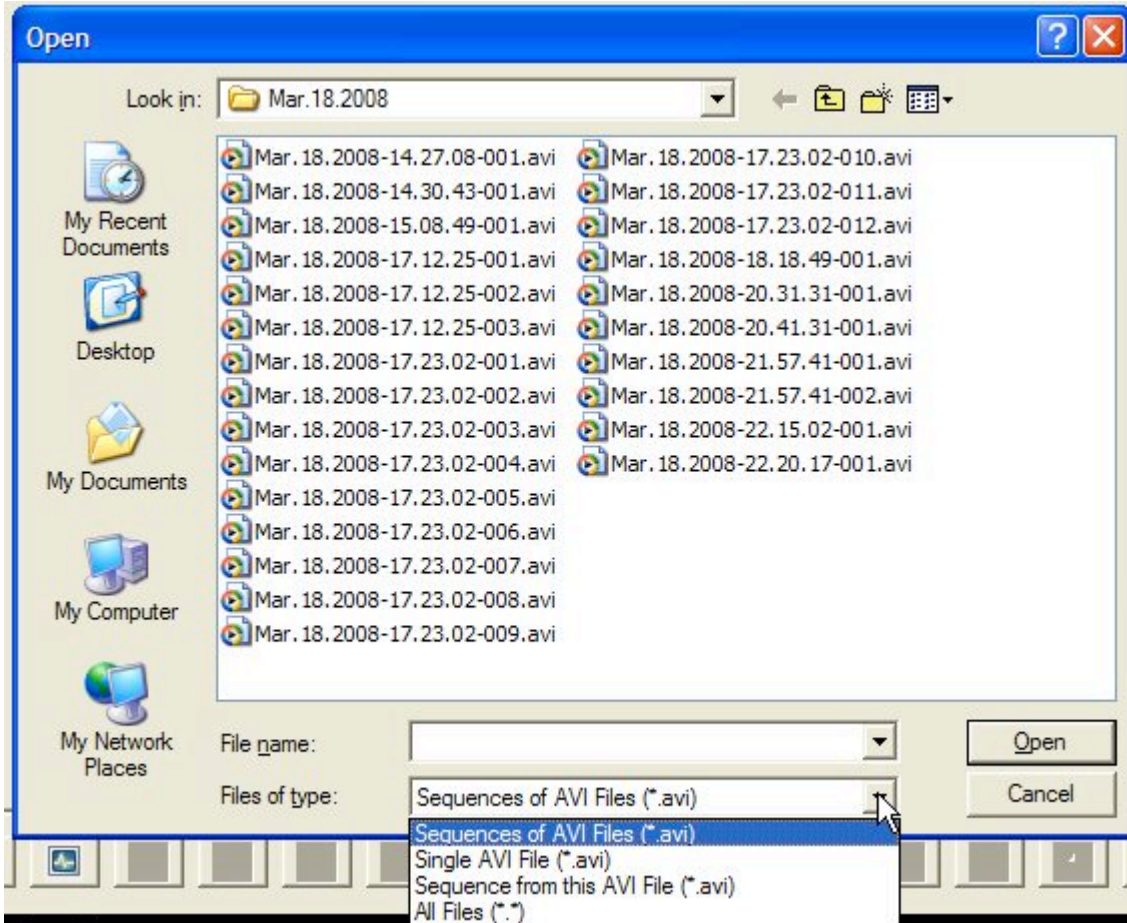
Figure 5 - Main Window

Main Window

This standard Windows menu enables the user to load files and change view and playback settings.

Features

Opening Files for Playback



MDVR files are recorded in sets to minimize the effect of file corruption and to make navigation to events easier. When an event occurs during recording, and it is configured as MARK, the current file is closed and a new one, with an event marker in the filename, is created to contain the video just before and after the event. Video files that occur at an event contain a # sign or other non standard character in their filename (not shown in the example above). The file set is identified by filename. The filename is made up of a date and time stamp followed by a sequence number followed by an optional event marker. A new file set is started each time the unit powers up or if the day changes. Notice there are three ways to open MDVR files:

- Sequences of AVI Files (*.avi) – select any file in the file set and the player will load all files in the set, begin playback at the beginning (lowest sequence number) and present the user the entire set as a seamless single movie.
- Single AVI File (*.avi) – plays the selected file only, then stops
- Sequence from this AVI File (*.avi) – loads all files from the selected file to the end of the file set and plays them as one movie. This is useful when interest in the video starts at a particular time or event. Note: this File Open dialog has a button in the upper right to let you switch the view to a Detail view. This will allow you to see the actual time the file was created and the size of each file.

Play Controls & Seek Slider

The Play Controls allow you to play, pause, stop, and alter playback speed through the video. The Seek Bar allows rapid seeking; it enables you to move backward and forward through the video under manual control.

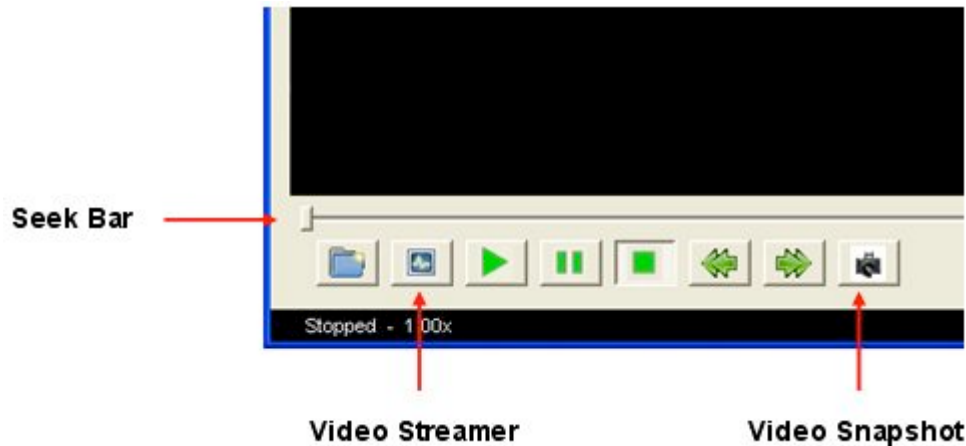


Figure 6 - Playback Control

Additional Playback Software

Videos that are played back using additional playback software such as Windows Media Player™ will only play the first video and audio channel of a multi channel MDVR file.

Video Snapshot

This will take an image capture of the current video frame. Files can be saved anywhere as a JPEG format. Metadata and the original image resolution are maintained in the saved image. Video Playback and Snapshots support the following image resolutions and aspect ratios:

- 320x240, 4:3
- 640x240, 4:3
- 640x480, 4:3

Streaming Video Source

Live video monitoring from the MDVR can also be accessed from the Streaming Video Source. The MDVR Player can connect to any TCP/IP reachable address and open a "live" stream if it supports the proper streaming protocol. The streamed video will have latency based on your network and computer speed of up to 1 second. If the computer network can not keep up with the data rate the streamed video may appear to become "jerky" or even pause temporarily. The priority is to display current video.

The dialog allows naming and saving known network IP Addresses in the 'Known Units' list for fast and easy re-connection.

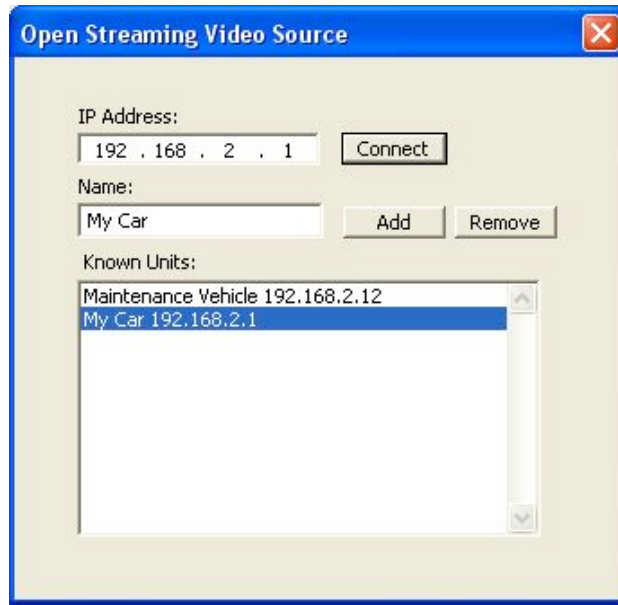


Figure 7 - Video Streamer

Metadata

Metadata may be shown in the “banner” or overlaid on the video. Select your preference (or both) from the Main Menu under Video->Metadata. There is only one display regardless of the number of videos shown.

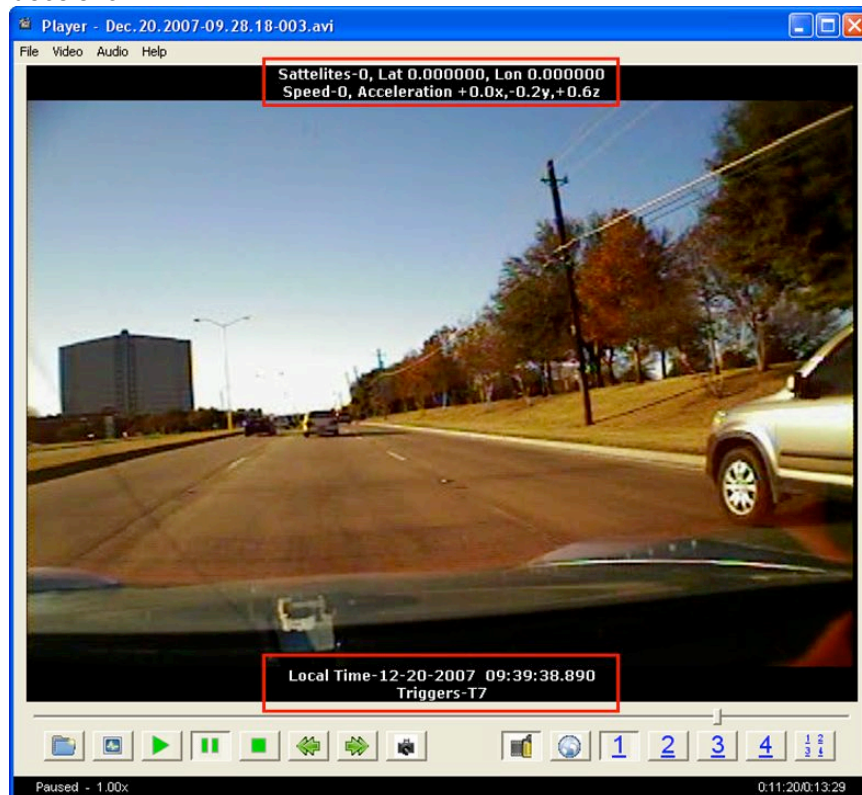


Figure 8 – Metadata shown in Banner

The available metadata displays:

- Date & Local Time
- Satellite Location
- Active Triggers
- Speed
- Acceleration

Video Clip Extraction

The Video Clip Extraction control allows saving a segment of a video file for later use. The control can be displayed by either the context menus in the Main Window or by clicking the UI button in the bottom right corner of the Player.

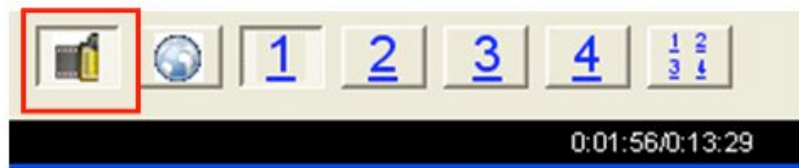


Figure 9 - Video Extractor Button

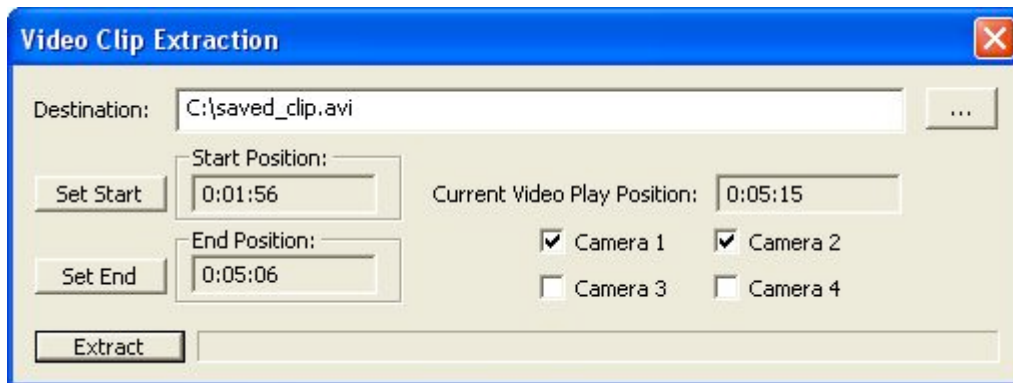


Figure 10 - Extractor Dialog

Specific video channels can be selected and saved to any destination on the computer by selecting the “...” button which opens up a folder location. Segment saving is accomplished by selecting a start and end point using the video feed slider then clicking on the “**Set Start**” and “**Set End**” buttons, the resulting position time is then displayed.

When the desired settings are achieved click on “**Extract**” and the extraction process begins. Progress is shown in the bar.

Map View

The map view control displays a live map from Google™ Maps. This is used to determine locations traversed at the time of the video recording. Previously viewed map images are saved locally eliminating the need to constantly be connected to the internet for previewed recordings.

In addition to the context menus in the Main Window, the map control can be accessed from the UI button in the bottom right corner of the Player.



Figure 11 - Map View Button

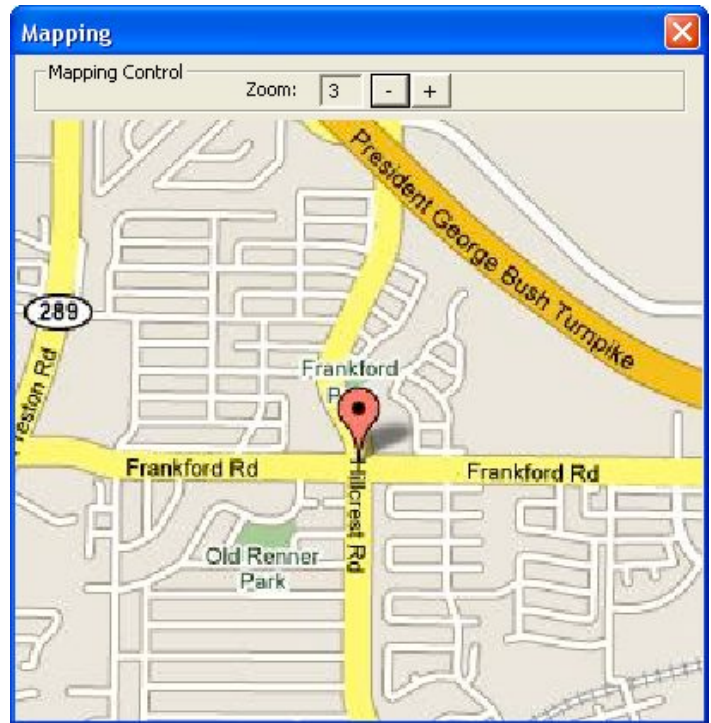


Figure 12 - Map View Control

The zoom control at the top of the dialog allows you to dynamically zoom in and out of the map view.

Channel Selectors

These buttons present the selected channel in full screen view along with its associated audio and metadata. If a channel was DISABLED on the MDVR it will appear simply as a blank view. If the channel is ENABLED but there is no camera connected it will appear as a black view.



Figure 13 - Individual Video Channels

Quad View

The quad view has the special feature of allowing any combination of audio channels to be played simultaneously. Use the Audio menu to select the channels to play. Quad view can be toggled by the context menus or by clicking on the UI button in the bottom right corner of the Player.



Figure 14 - Quad View Button

Context Menus

All features available using the user interface buttons are also available in the context menus. These menus have some extra options for finer control of the player.

File →

Open - Opens a file.

Open Stream - Streams a file directly from the DVR, via the Streaming Source Dialog.

See **Features** below.

Close - Closes the current movie file.

Extract Video Clip – Displays the Video Extraction dialog. See **Features** below.

Exit – Closes the Player.

Video →

Play - Plays the current movie file loaded.

Pause - Pauses the movie file.

Stop - Stops the movie file.

Frame Backward – When playback has been Paused, Reverses the video playback by one frame.

Frame Forward - When playback has been Paused, Forwards the video playback by one frame.

Video Window →

Video 1, 2, ... - Displays video recordings from first, second, third, and fourth streams.

Video All - Displays video from all streams simultaneously.

Play Speed →

xx value - Alters playback speed by multiplier value.

Metadata →

Hide - Hides all metadata information from the screen.

Overlay - Displays only overlay metadata.

Dialog - Displays only dialog metadata.

Both - Displays both dialog and overlay metadata.

Video Size 1:1 - Resizes video to a 1:1 ratio.

Map Location - Opens the street mapping dialog.

Audio →

Video 1-4 → Audio Stream 1 - 4 – Selects which audio channels should be played when the selected Video channel is displayed. Normally the audio and video

channels played should be the same, but it might be an advantage to watch one channel and be able to listen to a different channel to correlate activities.

Quad View - Enables or disables specific audio channels when using Quad View.

Help →

About - Displays a dialog containing detailed version information about the Player.