

Software User Manual

Video Management Tool (VMT)

MAE675UV2



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1.- PURPOSE

The purpose of this document is to explain how to install and use the software product (VMT – Video Management Tool - Security level). This software tool is used for monitoring the operation of the Train18V2 CCTV system equipment and managing the NVR video recordings.

2.- SCOPE

This document applies to the software product MAE675UV2 used for managing the CCTV System developed and manufactured by Medha Servo Drives Pvt. Ltd.

This video camera recording system is installed in the New Electric Cars that provide transport service

This document is intended for engineers and the maintenance personnel in charge of keeping the CCTV system in good operating condition, and the end customer.

3.- DOCUMENT REFERENCES

Documents

VMT User Manual

Installation and Maintenance Manual

4.- ACRONYMS (ABBREVIATIONS) AND DEFINITIONS

| Acronym | Definition |
|---------|--|
| CCTV | Closed Circuit Television |
| CPU | Central Processing Unit |
| ECN | Ethernet Consist Network |
| IP | Internet Protocol |
| NVR | Network Video Recorder |
| PC | Personal Computer |
| PIU | Portable Interface Unit (maintenance laptop) |
| SATA | Serial Advanced Technology Attachment |
| SW | Software |
| USB | Universal Serial Bus |
| VMT | Video Management Tool |

5.- GENERAL DESCRIPTION

The VMT is a comprehensive video management software tool which allows to connect to NVR system, video files download and view & play the downloaded files.

There are two deliverables of the product ('Setup_Video Management Tool - VMT <VV>.exe' for Security and 'Setup_Video Management Tool – VMTM <VV>.exe' for Maintenance) that give access to a different number of options on the main menu bar of the application but with identical functionality regarding the user interface.



6.- INSTALLATION AND MAINTENANCE

6.1.- Minimal Hardware and Software requirements

The VMT SW can be executed in the maintenance laptop/PIU that should meet the following minimum hardware configuration.

- Intel[®] i3 (3.2 GHz) or superior
- 8 GB RAM memory
- Hard Disk Drive SATAII 512 GB or superior
- 1 Gigabit Ethernet port
- USB 2.0 and 3.0 ports
- Windows 10 Pro or Windows 10 Enterprise 64 bits

Recommended hardware configuration:

- Intel[®] i5 (3.2 GHz) or similar
- 16 GB RAM memory
- Solid State Disk SATAIII 512 GB or higher storage capacity.

6.1.1.- Installation

In order to install the VMT, you must execute the installation file Setup_Video Management Tool - VMTM <VV>.exe; where <VV> refers to the executable software version.) supplied with the SW product deliverable by accessing its location from the Windows explorer. Follow the instructions of the setup wizard. The installation automatically creates a shortcut on the desktop and an option in the start menu, under All programs \rightarrow VMT \rightarrow Video Management Tool – VMT.



Once the installation process is complete, open the application as indicated in section 6.2 by entering *vmtmnt* in the **Name** field and *vmtmnt* in the **Password** field

6.1.2.- Uninstalling

To uninstall the program click on Start \rightarrow All programs \rightarrow Uninstall Video Management Tool VMT.

6.2.- VMT Application

The VMT application can be executed in two different ways:

- Double click on the direct access icon of the application from the desktop.
- Select Start \rightarrow All Programs \rightarrow VMT \rightarrow VMT from the Windows start menu.

You will be required to enter a user name and a password, before entering the main window of the application:



| USER LOGIN | | | | × |
|------------|--|-------|--------|---|
| Name: | | | | |
| Password: | | | | |
| | | Login | Cancel | |

Figure 1. VMT: User loging

- Name: *****
- Password: *****

6.2.1.- USER INTERFACE

The user interface below corresponds to the VMT_M (maintenance level). Find below the options displayed on the main menu bar of each product.

VMT for maintenance (VMT-M)

- NVR
- Player

| Ø Video Management Tool for Maintenance | | - ć | × |
|---|--------------|--------------|---|
| NVR Player • Ab | oout VMT 🛛 🚨 | User: vmtmnt | ☆ |
| Video Downloaded NVR options • | | | |
| 📮 Connection Settings | | | |
| E Video and Audio List Download | | | |
| | | | |
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6.2.2.- Connection Settings

The 'Connection Settings' menu option provides the graphical user interface for connecting and establishing communication between the VMT and the NVR. It allows you to choose between the connection options indicated in the sections below.

| | NVR CONNECTION SETTINGS | × |
|-------------------------|-------------------------|--------|
| NVR CONNECTION SETTINGS | Connection options | |
| Connection options | NVR List | |
| O NVR List | BU1-DTC 🔫 | |
| Manual | O I BU1-DTC | |
| | BU1-TC | |
| Name / IP: 10.1.1.140 | Test BU2-NDTC | |
| | BU2-TC | |
| Test | BU3-NDTC | Cancel |
| | BU3-TC | |
| Arrest | BU4-DTC | |
| Cancei | BU4-TC | |

Figure 3. VMT: NVR – Connection Settings

The 'Connection Settings' menu option provides the graphical user interface for connecting and establishing communication between the VMT and the NVR. It allows you to choose between the three connection options indicated in the sections below.









Make sure the PIU laptop running the VMT application is not configured with a fixed IP address, otherwise, select in the configuration menu Internet *Protocol TCP/IP Properties* (*TCP/IPv4*) the option *To Obtain Automatically an IP address*.

Click on the Test button to check that the VMT can establish connection with the NVR. If the connection can be established the message **NVR connection OK** appears on the screen. Then, click on the Accept button.

| NVR CONNECTION S | ETTINGS | × | |
|---------------------------------|----------------------|---------|--|
| Connection O NVR L O Manu | options ist al | | |
| Name / IP: 192.168.1.1 | | | |
| Test | NVR connec | tion OK | |
| | Accept | Cancel | |

Figure 5. VMT: NVR – Connection Settings – NVR connection OK



6.2.3.- Video Download

The 'Video Download' function provides the user interface for video download from the NVR. To access the 'Video Download' window, from the VMT menu bar click on NVR \rightarrow Video Download

| M Video Management Tool for Maintenance | | |
|--|--|--|
| | | |
| NVR options Video and Audio List Download | Select interval Select an hour Select range Select Dates Start date: Calendar | |
| | April 2022 Start time: | |
| | Su Mo Tu We Th Fr Sa 15:35:20 | |
| | 27 28 29 30 31 1 2 3 4 5 6 7 8 9 Duration: | |
| | 10 11 12 13 14 15 16 5 min • | |
| | 1/ 18 19 20 21 22 23 24 25 26 27 28 29 30 | |
| | 1 2 3 4 5 6 7 | |
| | Fast download | |

Figure 6. VMT: Video Download



The recording files will be one minute long. Therefore, there will be sixty video files for each hour of video recording.



6.2.4.- Select interval

| NVR Player * NVR options Connection Settings Video and Audio List Download April 2022 Start date: Calendar April 2022 Start time: Su Mo Tu We Th Fr Sa 27 28 29 30 31 1 2 3 4 5 6 7 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 1 2 3 4 5 6 7 1 2 3 4 5 6 7 8 min 0 min 15 min 20 min 20 min 20 min 20 min 25 min 30 min 35 min 40 min 45 min |
|--|
| NVR options Connection Settings Video and Audio List Download Video and Audio List Download Video and Audio List Download |
| 55 min |

Figure 7. VMT: Video Download – Select Interval

To download the recordings corresponding to a time interval of video content, perform the following steps:

- 1. Select the recording day of the video content that you want to download in the **Start date** selection calendar or the 'Start date' selection tree.
- 2. Enter the start time in the **Start time** box.
- 3. Open the drop down list in the **Duration** selection box to select the desired time range.
- 4. Click on the Fast download button.
- 5. A dialog box will appear to select the destination folder to which you want to download the video files. After selecting the destination folder, click on Accept.
- 6. The video download process will begin. Once the download process has been completed, click on Close.





6.2.5.- Select an hour / Select Dates

Figure 8. VMT: Video Download – Select Interval

To download the recordings corresponding to a full hour of video content, perform the following steps:

- 1. Click on the option Select an hour option.
- 2. Select the recording day of the video content that you want to download in the **Start date** selection tree/calendar.
- 3. Open the drop down list in the **Start time** selection box to select the desired recording time.
- 4. Click on the Search cameras button.



- 5. Select the cameras from which you want to download the recordings in the **Camera** selection box.
- 6. Select the audio sources from which you want to download the recordings in the **Audio** selection box.
- 7. Click on the Fast download button.
- 8. A dialog box will appear to select the destination folder to which you want to download the video files. After selecting the destination folder, click on Accept.
- 9. The video download process will begin. Once the download process has been completed, click on Close.

| Video Management Tool for Maintenance | | | | |
|---------------------------------------|--|------------------------------|--|---|
| NVR Player 🗸 | | | | |
| | Select interval Select an ho | ur 💿 Select range 🔿 Select I | Dates |] |
| 🛱 Connection Settings | Start date: | End | date: | |
| Video and Audio List Download | Tree Calendar | | Tree Calendar | |
| | 2022 March 17 23 April 11 Search cameras | 15:00 (GMT+05:30) ▼ | ✓ 2022 → March ✓ April 11 | 15:00 (GMT+05:30) ▼ |
| | Camera | Audio | Trigger HDDE Camer Videol Illegal Netwo IPConf | Events ror anotdetected .oss .ogin rkDisconnected flict |
| | Search Fast downlo | ad Select all | Deselect all | |

6.2.6.- Select range

Figure 9. VMT: Video Download – Select range

To download the video content recorded during a time interval between two different dates, perform the following steps:

- 1. Click on the option Select range.
- 2. Select the start day of the recordings that you want to download in the **Start date** selection **Tree/Calendar**.
- 3. Open the drop down list in the 'Start time' selection box to select the desired recording time.



- 4. Select the end day of the recordings that you want to download in the **End date** selection **Tree/Calendar**.
- 5. Now for the steps to follow to continue the download process, repeat the instructions given from the step 4 of section 6.2.5.

6.2.7.- Player

Click on 'Player' from the VMT menu bar to access the menu with all the available playback options.

6.2.8.- Video Downloaded

The 'Player' menu option is used to playback video files via a friendly interface that allows you to select video recordings from different cameras to be reproduced at the same time from NVR video recordings saved in a local directory of the PIU laptop/Office PC. To access the 'Video Downloaded' window:

- 1. Click on Player \rightarrow Video Downloaded from the main menu bar.
- 2. Select the path location of the folder that contains the video recordings for video playback, click on Open.

| Wideo Management Tool for Maintenance | | | | | | |
|---------------------------------------|-------------------------|---|--------|--|--|--|
| NVR | Player 🗸 | | | | | |
| Oper | n downloaded | | | | | |
| | Video path: | C:\Users\sk502534\Desktop\VMT\30-Mar-22 | Select | | | |
| | Audio path: | Use the same as for video | | | | |
| | | C:\Users\sk502534\Desktop\VMT\30-Mar-22 | Select | | | |
| | Log path: | Use the same as for video | | | | |
| | | C:\Users\sk502534\Desktop\VMT\30-Mar-22 | Select | | | |
| | Check file manipulation | | | | | |
| O | pen | | | | | |





3. Click on play and the video playback will start (see Figure 11).



Figure 11. VMT: Player - NVR Video Player – Loading Video



Here the selected Camera files will be converted into .MP4 format and the video will be played in the new window as shown below.



Figure 12. VMT: Player - NVR Video Player - Playback of NVR recordings



6.2.9.- Export Video

The 'Export Video' allows the user to export video in different standard formats from the 'video playback' user interface.

You can access the 'Export Video' function by opening the pop up menu on a video channel from the 'Video Playback' interface window. To do so, click with the right button of your mouse on the video channel from which you want to export video. Once the pop menu appears, select the Export Video option and the window shown in following figure will appear.





| EXPORT VIDEOS | | | | | | | | × |
|----------------------|--------|----------------------------|---------|----------|------|---------------------|--------|---|
| Path: C:\Pro | | gram Files\VMT\ExportVideo | | | | | | |
| Folder: EXP-2 | | 019_04_08 115005-609+02 | | | | | | |
| Export options | | | | | | | | |
| Export | as: | WMV | | | ~ | Show permanent labe | | |
| File name: | | Export001 | | | ~ | OSD / Not Overlaid | | |
| Camer | a: | A-1234-PAC07n | | | ~ | Camera ID | | |
| Audio: | | A-1234-IFC01n | | | ~ | Date & Time | | |
| Start d | ate: | 3/31/2019 | | 14 | ~ | GPS information | | |
| Start ti | me: | 14:03:43 | | | | | | |
| End da | ite: | 3/31/2019 | | 14 | | | | |
| End tin | ne: | 14:33:43 | | | | | | |
| | | | | | | | | |
| Password protection: | | | | | | | | |
| Entry pas | sword: | | Confirm | n passwo | ord: | | | |
| | | | | | | | Caraal | |
| | | | | | | Accept | Cancel | |

Figure 14. VMT: Video Playback - Video channel – Export Video's menu options



The following fields are cannot be modified:

- Path: 'C:\Program Files\VMT\ExportVideo' is default option for 'Export Video'.
- Start date: corresponds to the start date selected for playback of the video recordings.
- End date: corresponds to the end date selected for playback of the video recordings.

To export video, perform the following steps:

- 1. Open the drop down list in the **Export as** selection box to select the desired enhance video format (MP4 format).
- 2. Enter the name for the video file in the **File name** field.
- 3. Open the drop down list in the **Camera** selection box to select the camera from which you want to export the video.
- 4. Open the drop down list in the **Audio** selection box to select the audio source from which you want to export the video. (No sources available in this project)
- 5. To specify a time range for video export, fill in the **Start time** and **End time** fields with the desired values.
- 6. Once the process has been completed and the video has been protected, click on Accept. The export process of video will begin.
- 7. Once the export files process has been completed, click on the Close button.

The exported file will be saved in the path location. You can play the video file by just clicking on it to open it.

6.2.10.- About VMT

When selecting About VMT on the menu bar, the 'ABOUT VMT' window appears showing general information about the application such as its name and current version.



Figure 15. VMT: About window