

N3N Camera API v2.1

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Checklists

Pre-requisite

- Need to install MD server and Wizeye software.

Technical Requirements

- Install MD for video streaming and Wizeye for PTZ controlling.
- MD Server must be installed Windows OS.
- Access to IP Cameras from MD Server.

Data Collection Interval

- Streaming API: Through RTSP when the client requests for the Video.

Version History

v2.1

- ***exportVideo*** API is added. It can export recorded video without playback.
- Add more example and comment on ***setPlaybackSpeed***.
- Terminations of camera status are unified. See remarks in ***Camera List API***.

Summary

N3N Camera API is for video streaming and using PTZ controls. We use our lightweight N3N Camera API's for below function areas.

REST API

Camera List API

Metadata

- To get the Camera Name, ID, RTSP url, Status and Geo Coordinates.

Request and Response

```

GET:
/media/cameraInfo?token=[PublicAccessToken]&name=[CameraName]

Response:
[
  {
    [Camera Name]:
    {
      "name": "[Camera Name]",
      "description": "[Camera Description]",
      "label": "[Camera Display Name]",
      "mediaserver": "[Media Server Name]",
      "status": "[Status]",
      "mediaLink": "[Camera Link]",
      "properties":
      {
        "rtsp": "[Camera RTSP URL]",
        "RtspID": "[RTSP Login ID]",
        "RtspPassword": "[RTSP Login Password]",
        "latitude": "[Geo Location]",
        "longitude": "[Geo Location]",
        "PlayerTypeName": "video",
        "UsePTZ": "[PTZ Support]"
      }
    },
    "metrics": [Information from VSM]
  }
]

```

Remarks

- For status responses, each value is described in the table below.

Status	Description
online	Camera is connected (to the VMS)
offline	Camera is disconnected (to the VMS)
error	The VMS has sent signal to camera but no response come from camera
unknown	Anything not defined in the above status

Set Camera API

Add new Camera to the List

- To dynamically add new camera to the camera based on Geo- Coordinates

Request and Response

```
Body:
{
  "token": [API Access Token],
  "name": [Unique Name],
  "description": [Description],
  "label": [Display Name],
  "rtsp": [RTSP URI],
  "RtspID": [RTSP Login ID],
  "RtspPassword": [RTSP Login Password],
  "latitude": [Geo Location],
  "longitude": [Geo Location],
  "UsePTZ": [If this Camera support PTZ, true or false]
}
```

Javascript API

Video Control

open

Description

Open live stream for a single camera rendering.

Syntax

Parameters	Description
<i>deviceName</i>	Device name
<i>wizeyeUrl</i>	URL
<i>objectName</i>	Camera object name
<i>accessToken</i>	Access token of camera

Example

To dynamically render a single video,

```
document.addEventListener('DOMContentLoaded',
function() {
  mp1 = new N3N.WizeyeVideoPlayer();
  mp1.open("video", "http://cdp.w20.n3n.io",
          "cam1", "1504878079591:607602");
});
```

Remarks

To make a single video full screen, change the attached div to full screen, then the single video will be full screen.

seek

Description

Set start and end time for playback.

Syntax

Parameters	Description
<i>startTime</i>	Start time.
<i>endTime</i>	End time.

Example

```
mp1.seek("1559256000", "1559257000")
```

Remarks

play

Description

Start playback.

Example

```
mp1.play();
```

Remarks

To start playback, call **open**, **seek**, **play** in order.

```
document.addEventListener('DOMContentLoaded',
function() {
    mp1 = new N3N.WizeyeVideoPlayer();
    mp1.open("video", "http://cdp.w20.n3n.io",
            "cam1", "1504878079591:607602, true");
    mp1.seek("1559256000", "1559257000");
    mp1.play();
});
```

To make a single video full screen, change the attached div to full screen, then the video will be full screen.

stop

Description

Stop playback.

Example

```
mp1.stop();
```

Remarks

pause

Description

Pause playback.

Example

```
mp1.pause();
```

Remarks

setPlaybackSpeed

Description

Set playback speed.

Syntax

Parameters	Description
<i>Speed</i>	Speed of playback.

Example

```
mp1.setPlaybackSpeed("2"); // speed x2  
mp1.setPlaybackSpeed("4"); // speed x4  
mp1.setPlaybackSpeed("1"); // speed x1
```

Remarks

setPlaybackDirection

Description

Set default direction of playback.

Syntax

Parameters	Description
<i>direction</i>	(-) value: backward. (+) value: forward.

Example

```
mp1.setPlaybackDirection("1");
```

Remarks

Image Capture

saveAsImage

Description

Save as Image (JPEG) locally.

Syntax

Parameters	Description
<i>path</i>	Path to save image.

Example

To capture the video stream as image and save,

```
mp1.saveAsImage("c:/test.jpeg");
```

Remarks

See Addendum for code.

Video Export

startSaveAsVideo

Description

Start video export. It saves as video file (.AVI) locally.

Syntax

Parameters	Description
<i>path</i>	Path to save video.

Example

```
mp1.startSaveAsVideo("c:/test.avi");
```

Remarks

See Addendum for code.

endSaveAsVideo

Description

Stop video export.

Example

```
mp1.endSaveAsVideo();
```

Remarks

See Addendum for code.

exportVideo

Description

Export a recorded video by passing start and end time. It saves as video file (.AVI) locally.

Syntax

Parameters	Description
<i>path</i>	Path to save video.
<i>start</i>	Epoch start time
<i>end</i>	Epoch end time

Example

```
mp1.exportVideo("c:/test.avi", "1559256000", "1559257000");
```

Remarks

PTZ Control

controlPanTilt

Description

Setup the Pan and Tilt value for the Camera PTZ Control.

Syntax

Parameters	Description
<i>pan</i>	Range: -100 ~ 100
<i>tilt</i>	Range: -100 ~ 100

Example

```
mp1.controlPanTilt("70", "-67")
```

Remarks

controlZoom

Description

Setup the Zoom value for the Camera PTZ Control.

Syntax

Parameters	Description
<i>zoom</i>	Range: -100 ~ 100

Example

```
mp1.controlZoom("50")
```

Remarks

Preset Control for PTZ

setPreset

Description

Make preset.

Syntax

Parameters	Description
<i>presetName</i>	Name of preset.

Example

```
mp1.setPreset("Preset2")
```

Remarks

gotoPreset

Description

Go to the default preset.

Syntax

Parameters	Description
<i>presetName</i>	Name of preset.

Example

```
mp1.gotoPreset("Preset1")
```

Remarks

removePreset

Description

Remove preset.

Syntax

Parameters	Description
<i>presetName</i>	Name of preset.

Example

```
mp1.removePreset("Preset1")
```

gotoHome

Description

Go to the default preset.

Example

```
mp1.gotoHome()
```

Remarks

Layout Control of Native Player

setZindex

Description

Set up for z-index.

Syntax

Parameters	Description
<i>zIndex</i>	z-index of the player. A player with a low z-index is blocked by a player with a high z-index.

Example

```
mp1.setZindex("2")
```

Remarks

show

Description

Show Native Player.

Example

```
mp1.show()
```

Remarks

hide

Description

Hide Native Player.

Example

```
mp1.hide()
```

Remarks

close

Description

Close the Native Player.

Example

```
mp1.close()
```

Popup Area

addPopupArea

Description

Setup hide area in rendering screen using popup

Syntax

Parameters	Description
<i>popupID</i>	ID of Popup area
<i>left</i>	Start x position
<i>top</i>	Start y position
<i>width</i>	Width
<i>height</i>	Height

Example

```
mp1.addPopupArea("popup1", "10", "10", "100", "100")
```

Remarks

removePopupArea

Description

Delete popup area.

Syntax

Parameters	Description
<i>popupID</i>	ID of Popup area

Example

```
mp1.removePopupArea("popup1")
```

Remarks

Addendum

```

<html>
<body style="position: absolute;top:0; bottom:0;right:0;left:0;overflow:hidden;">
<div id="video" style="width:1280px; height:720px"></div>
<div id="message" style="width:1280x; height:100px"></div>
<input type="text" id="StillImagePath" size="20"></input><button
onclick="saveAsImage()">STILL</button><p>
<input type="text" id="VideoFilePath" size="20"></input><button
onclick="startSaveAsVideo()">VIDEO</button><p>
<button onclick="endSaveAsVideo()">END</button><p>
<script type="text/javascript"
src="http://cdp2.w20.n3n.io/public/mediaplayer/mediaplayer.js"></script>

<script type="text/javascript">
var mp1;
document.addEventListener('DOMContentLoaded', function() {
  mp1 = new N3N.WizeyeVideoPlayer();
  mp1.open("video", "http://cdp2.w20.n3n.io", "cam1", "1506546503490:667375");
  mp1.onEvent = function(json)
  {
    var message = document.querySelector("#message"); message.innerHTML = JSON.stringify(json);
  }
  document.querySelector("#StillImagePath").value = "e:/test.jpg";
  document.querySelector("#VideoFilePath").value = "e:/test.avi";
});

window.onunload = function()
{
  if (mp1) mp1.close();
};

function saveAsImage()
{
  mp1.saveAsImage(document.querySelector("#StillImagePath").value);
}
function startSaveAsVideo()
{
  mp1.startSaveAsVideo(document.querySelector("#VideoFilePath").value);
}

function endSaveAsVideo()
{
  mp1.endSaveAsVideo();
}
</script>
</body>
</html>

```