

IPCAM Control

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Abstract

This document gives an easy guideline on how to send request to IPCAM with ONVIF protocol and how to capture image by openCV.

1 Software List

- ONVIF Test tool (in IPCAM package)

2 Easy GuideLine

[illegible]

Figure 1: Main Page

- Step 1. Open ONVIF Test tool, you will see the Main Page like the image
- Step 2. Click on NIC
- Step 3. All the ip links will be shown on the scroll bar
- Step 4. Click on IP to see more information

The screenshot displays the ONVIF Test tool interface with the 'Conformance Test' tab selected. The interface includes a top navigation bar with 'Help', 'Discovery', 'Management', 'Conformance Test', 'Diagnostic', and 'Debug'. Below this, there are several input sections: 'Responsible Member' with fields for 'Member Name' and 'Member Address'; 'Device Under Test Information' with fields for 'Product Name', 'Brand', 'Model', and 'Other Information'; and 'Test Execution Information' with fields for 'Test Operator Name', 'Executing Organization Name', and 'Executing Organization Address'. Each section has a 'Clear' button. Below these sections is a 'Conformance' section with a 'Start Conformance Test' button. At the bottom, there are three buttons: 'Generate DoC', 'Generate Test Report', and 'Generate Feature List'. A large, empty scrollable area is present below the 'Start Conformance Test' button.

Figure 2: Conformance Test

Usage: Test whether your IPCAM support ONVIF protocol to control the IPCAM

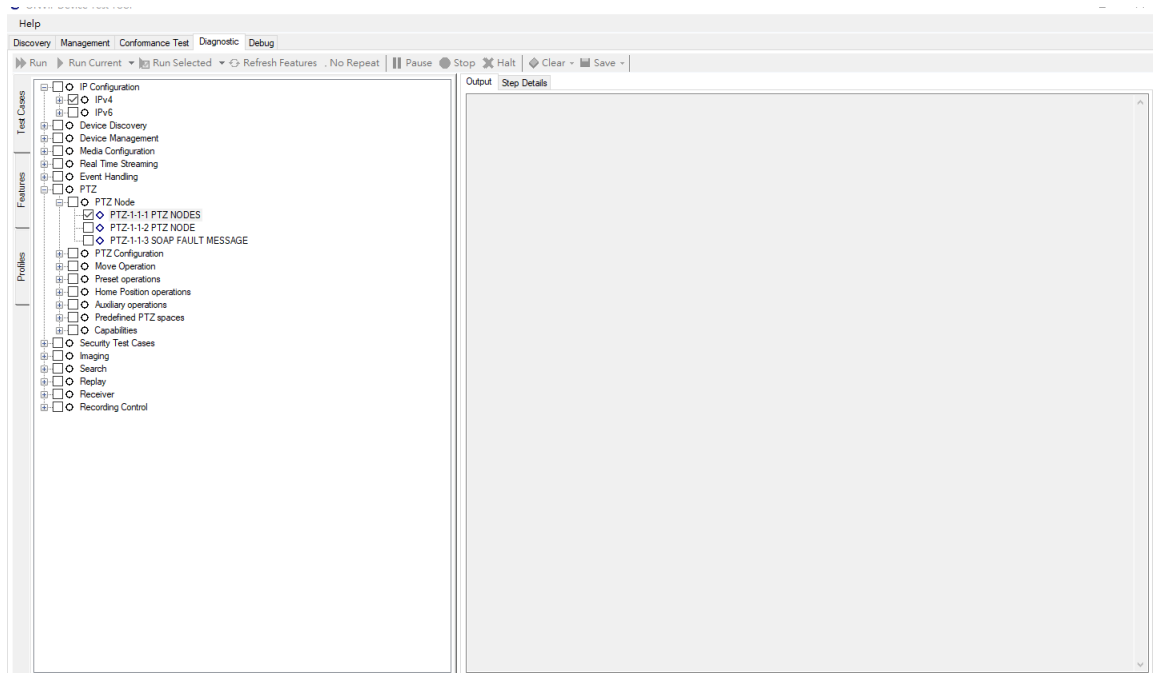


Figure 3: Diagnostic Test

- Step 1. Click on the item you would like to know
- Step 2. Click on run to enable the test
- Step 3. The result will be shown on the right side of the screen

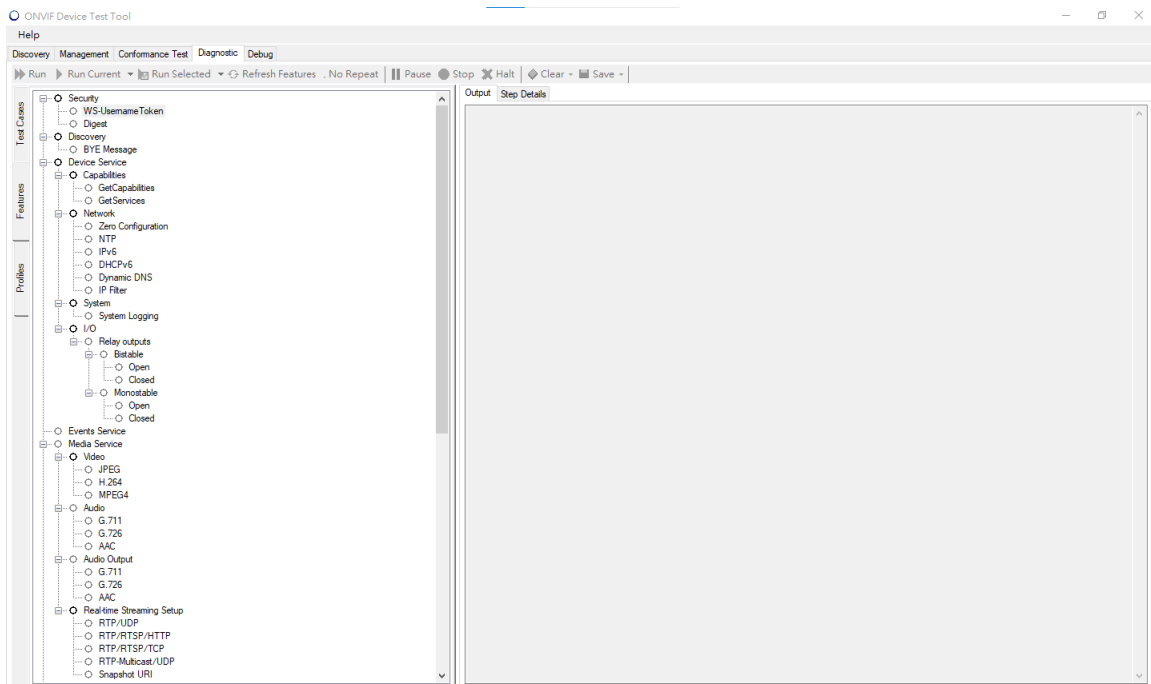


Figure 4: Diagnostic TestMore testing options

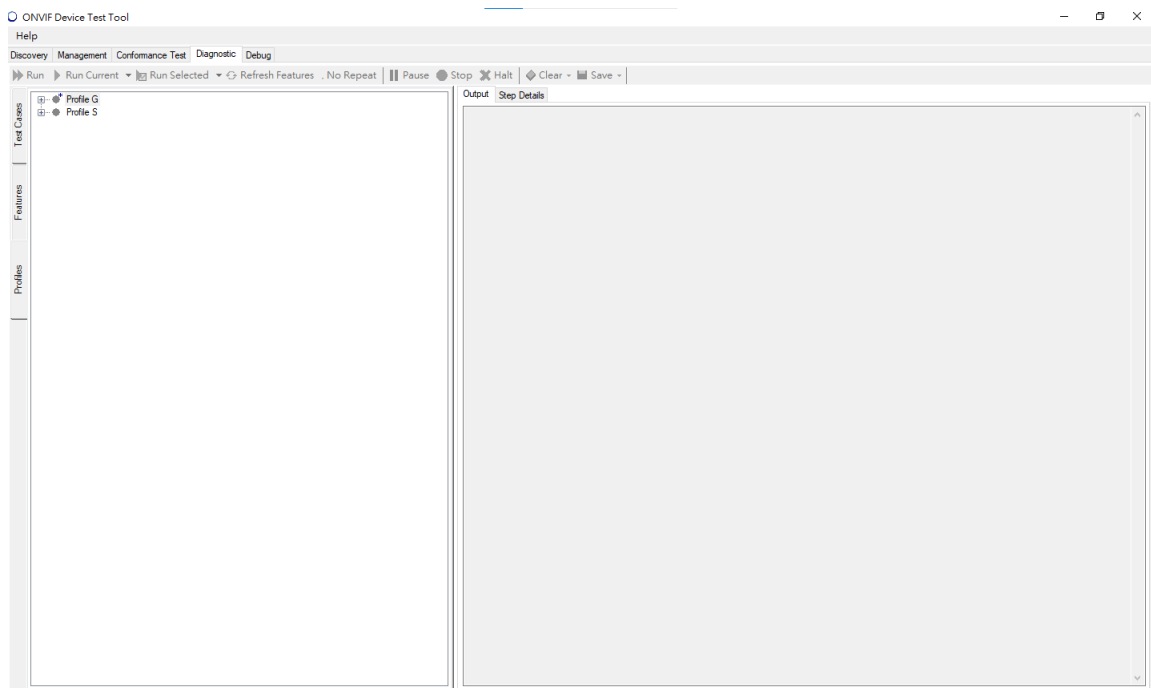


Figure 5: Diagnostic TestMore testing options

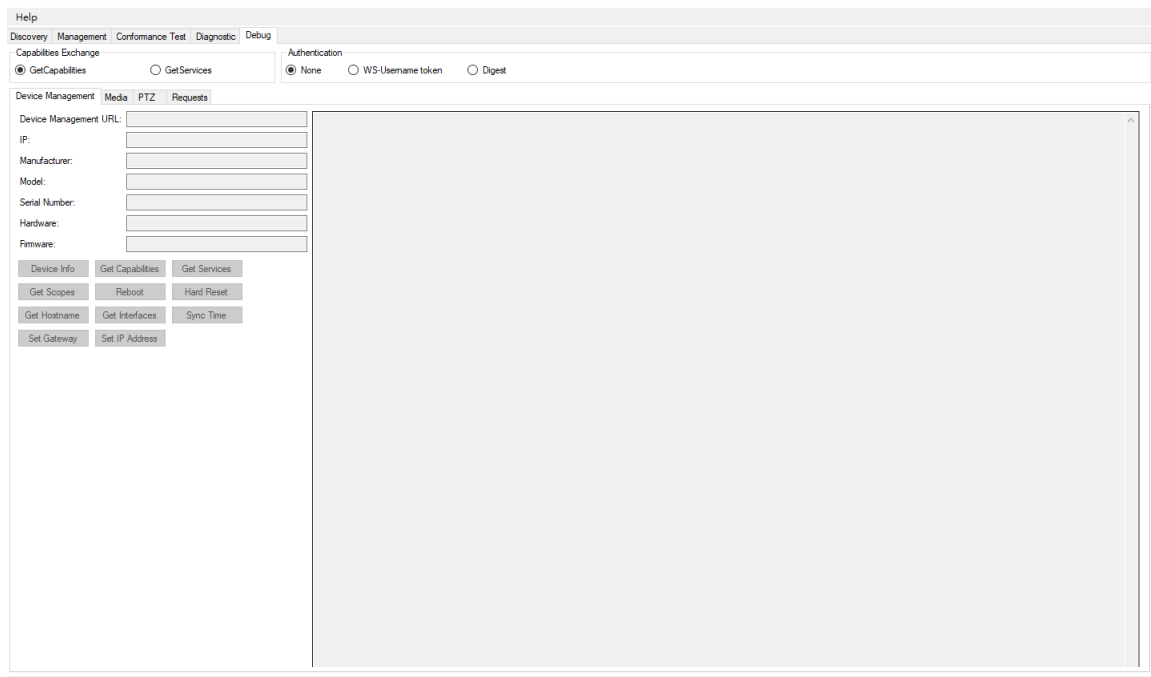


Figure 6: Device Management

- Debug Mode
- The Left bottom corner contains lots of setting such as Device Info
- You could even reboot the IPCAM from the Tool

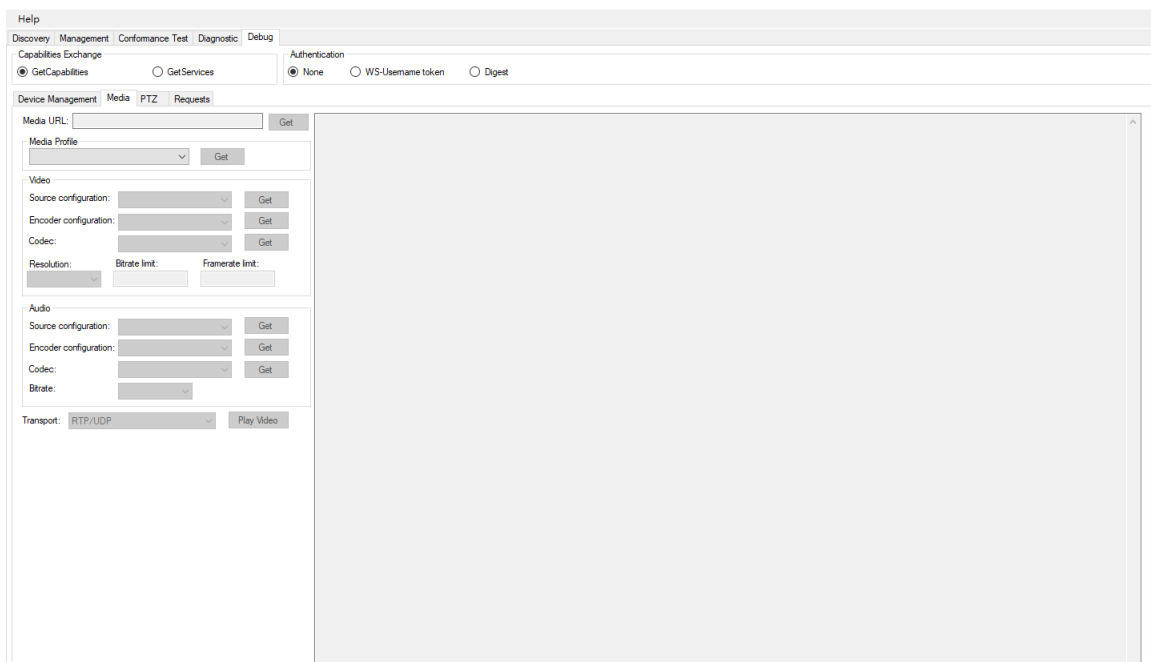


Figure 7: Media Management

Media Management controls the config information on how to capture or control the picture quality and video quality.

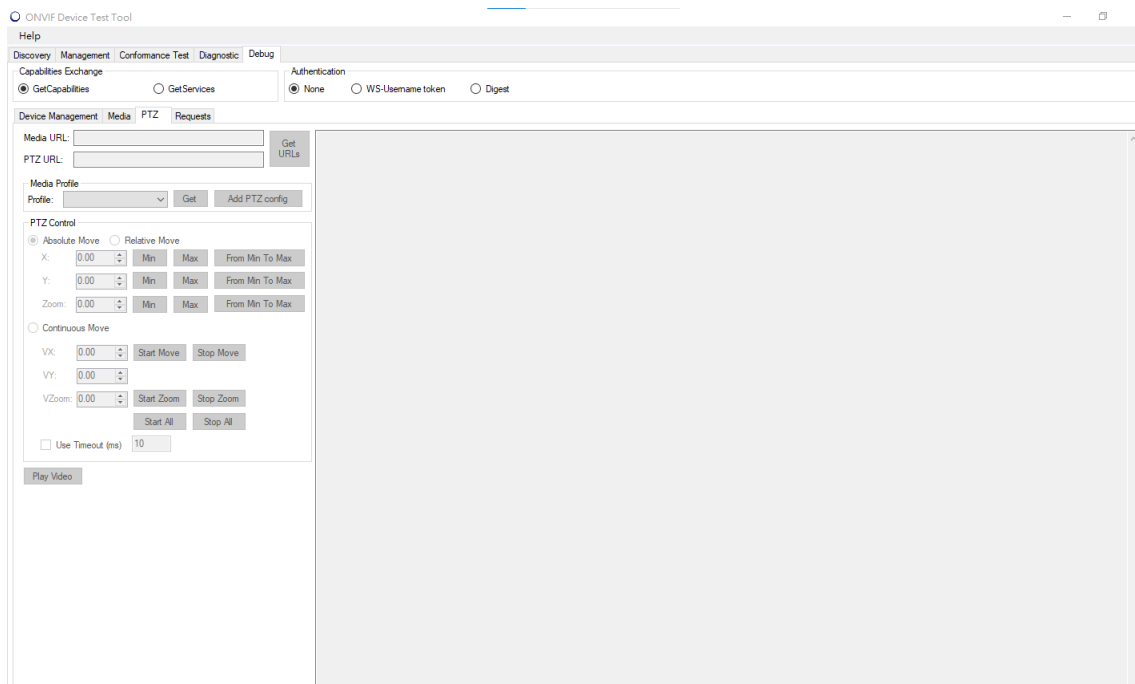


Figure 8: PTZ control

PTZ control controls how the IPCAM absolute move. You could move the IPCAM by ONVIF protocol.

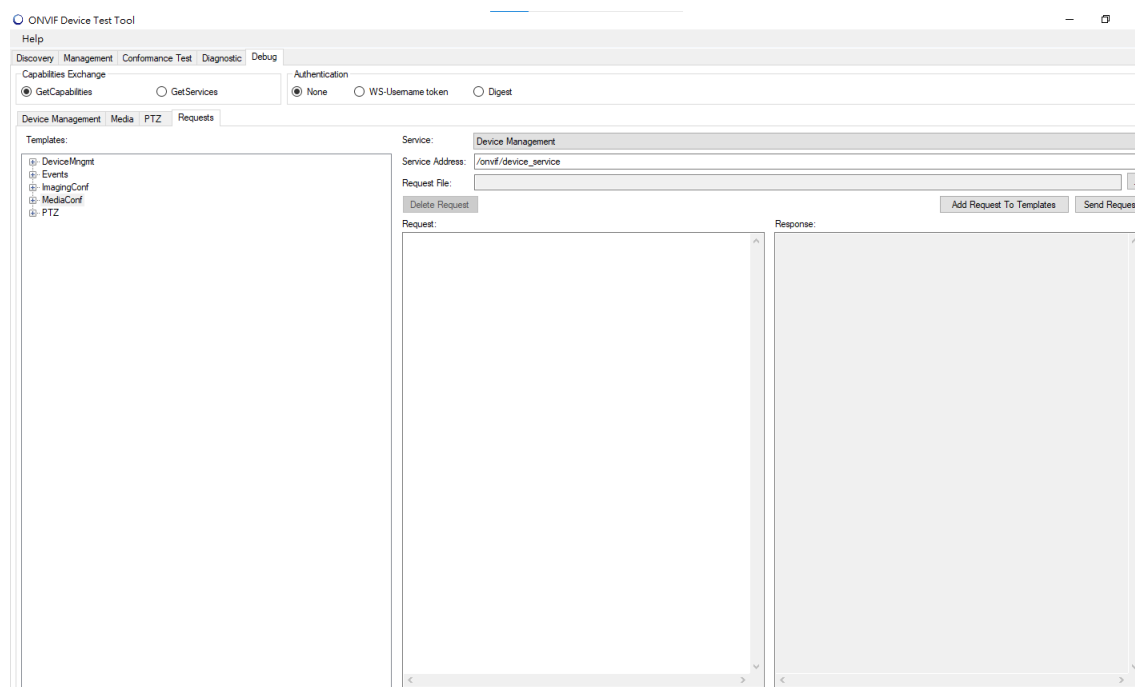


Figure 9: Request Menu for IPCAM

If you want to send the request via programming, ONVIF test tool provide lots of example XML which could control IPCAM by sending XML message

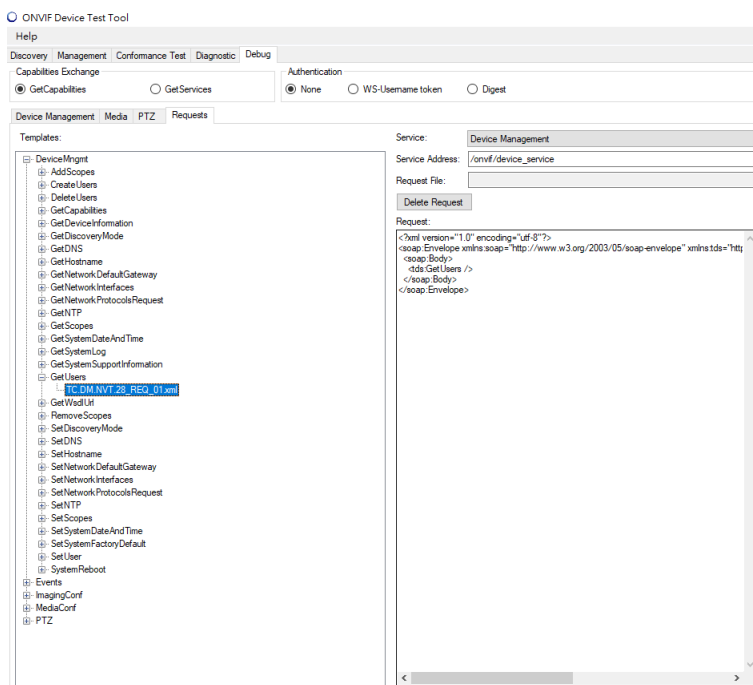


Figure 10: Request get Users

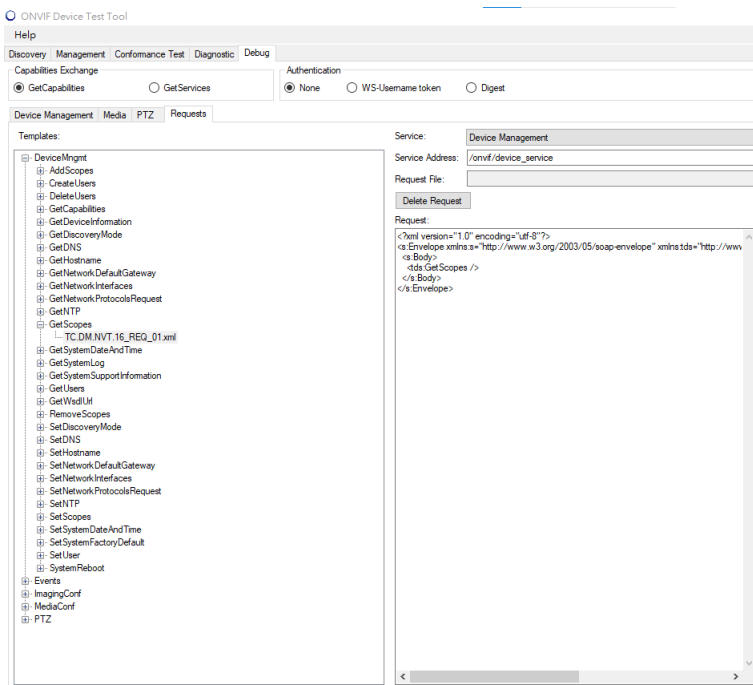


Figure 11: Request get Scope

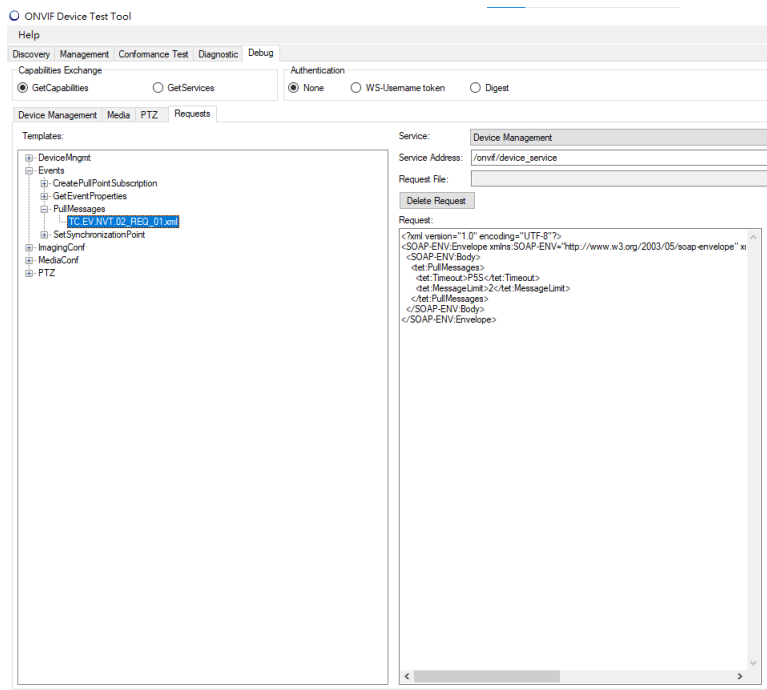


Figure 12: Request Pull message

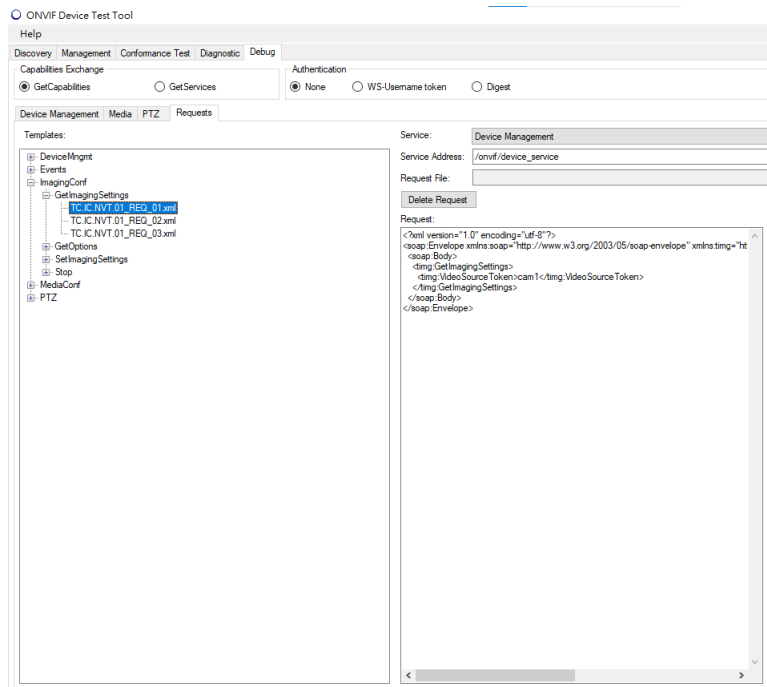


Figure 13: Request get image setting

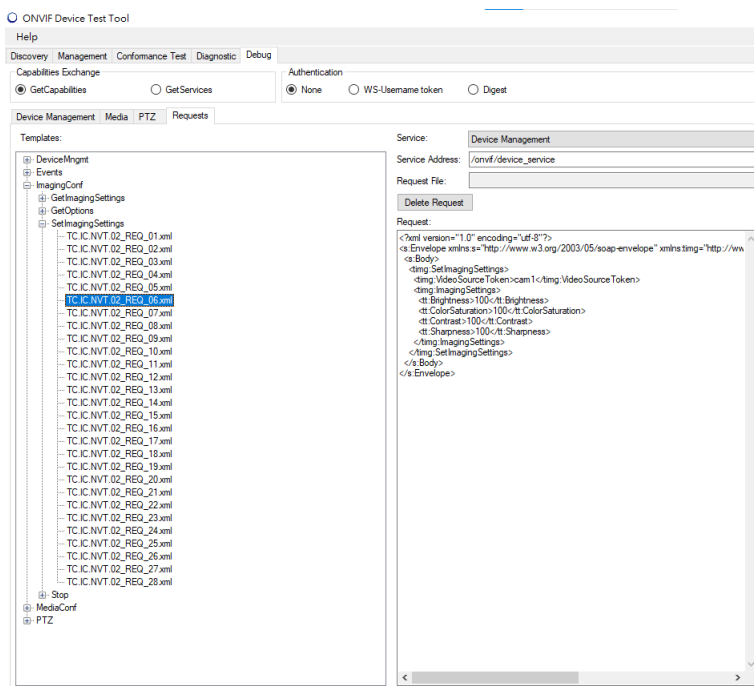


Figure 14: Request set image setting

If you want to change the information, you could fix XML number by customization.

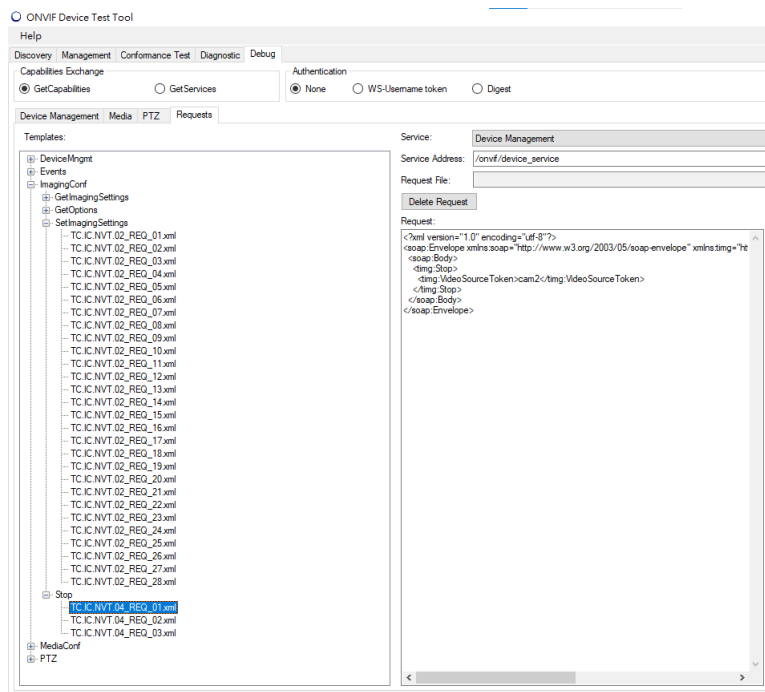


Figure 15: Request Stop video recording

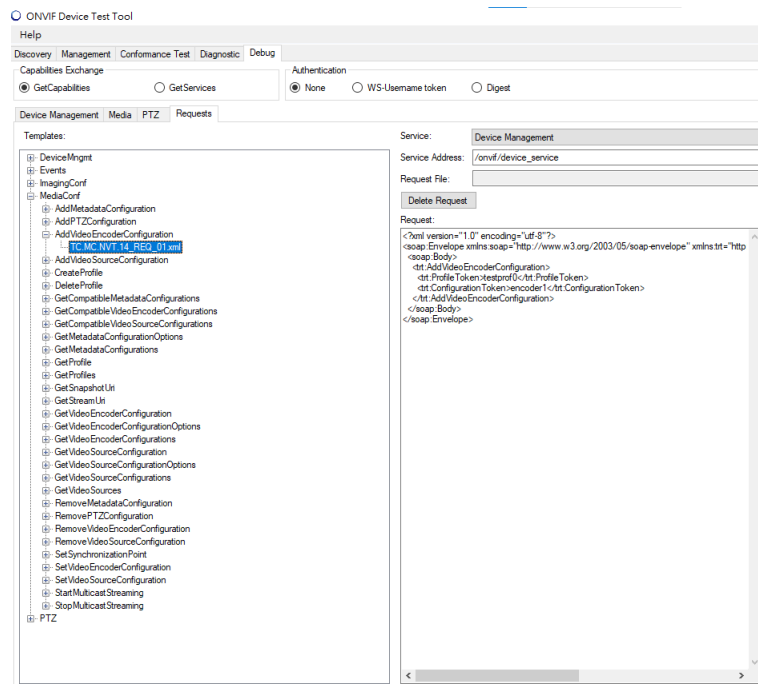


Figure 16: Add video recorder

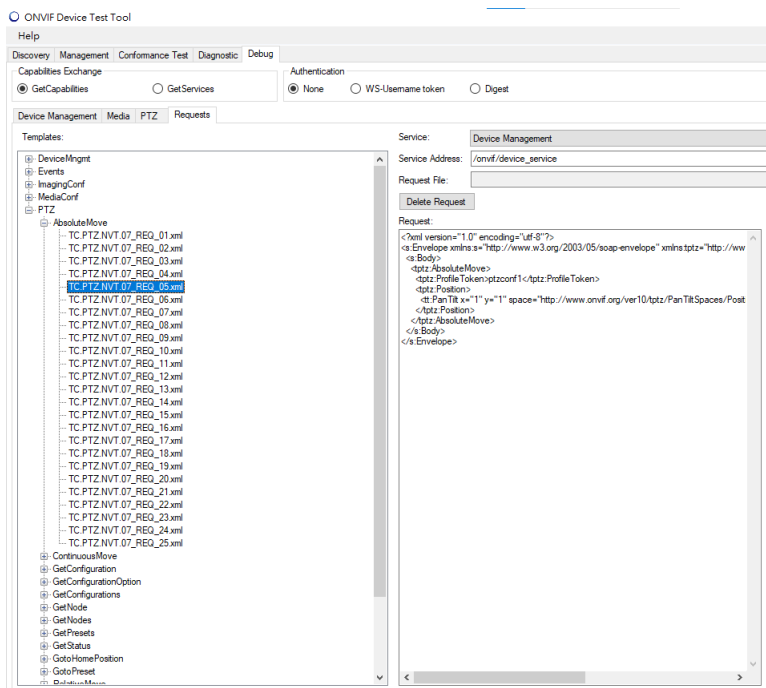


Figure 17: Request get Profile Token

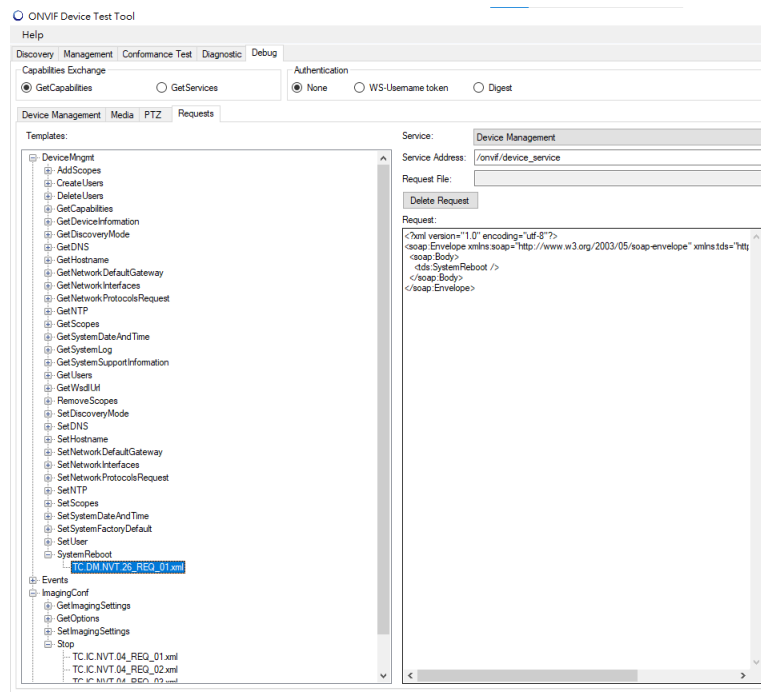


Figure 18: Request send reboot Information

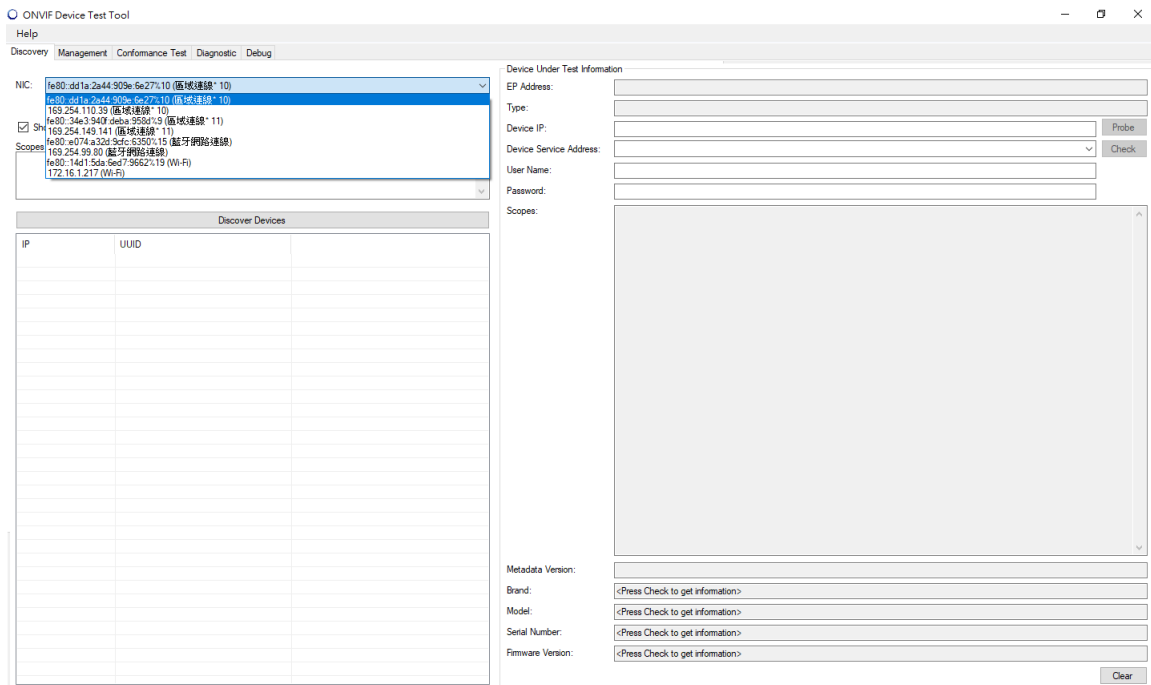


Figure 19: Example for real usage

```
1 #include "pparking.h"
2 #include "main.h"
3
4 int main()
5 {
6     init_camera();
7
8     Mat frame;
9     snapshot(frame);
10    imshow("frame", frame);
11    waitKey(0);
12
13    return 0;
14 }
```

Figure 20: This function activates the crop function