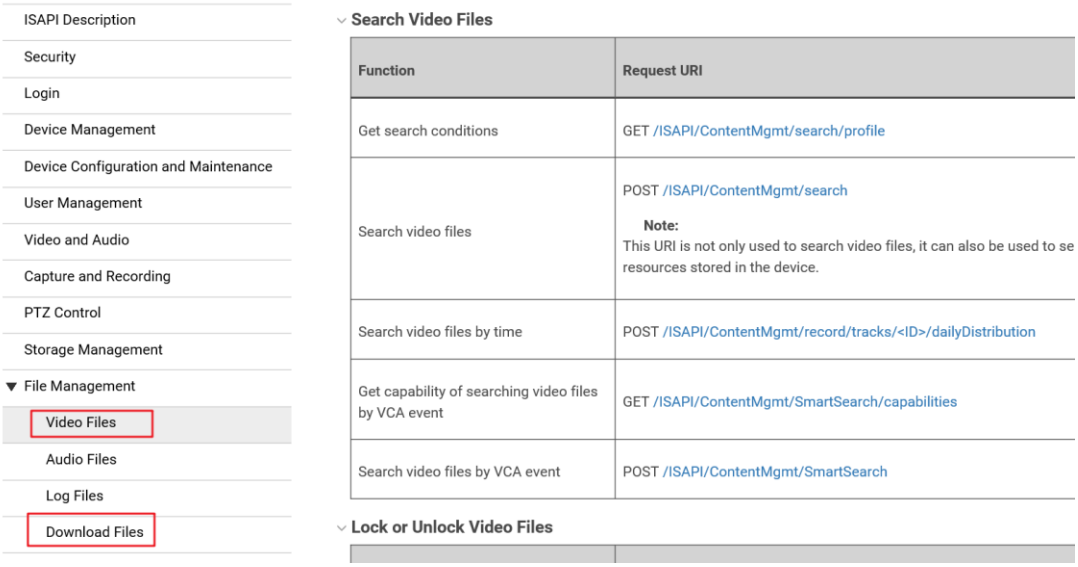
How to search and download the video file via ISAPI

Please refer to the ISAPI document (**General Application)** below first.



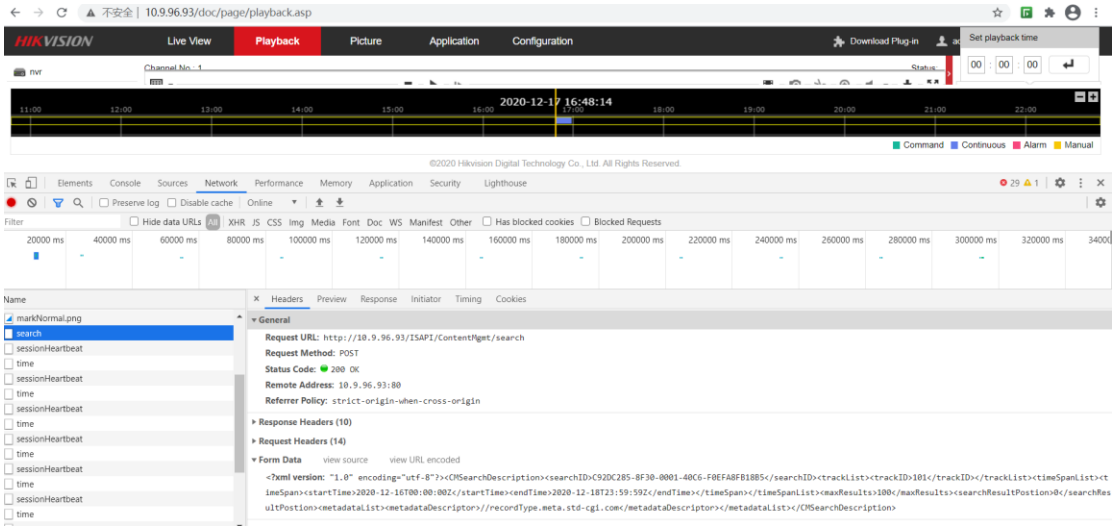
1. Search the video file

The Content Management ‘Search’ service is the primary component for conducting searches of content bases managed by a ISAPI recording device. Fundamentally, searches are initiated using a parameter-based criteria set which is conveyed by the initiator to the device via the ‘CMSearchDescription’ XML schema. *Since not all programming languages allow content bodies with HTTP GET methods, both ‘GET’ and ‘POST’ are supported as message types for initiating searches*. The responding device passes back the results in a ‘CMSearchResult’ XML schema instance for search requests that had valid syntax. If a search request is syntactically invalid (i.e. no payload, malformed schema instance, etc.), an HTTP response with status code 400 (Bad Request) and a corresponding ‘Response Status’ are returned to the requester. Please note that a syntactically correct search, that has no matching criteria, returns a ‘CMSearchResult’ schema instance with a ‘NO MATCHES’ status string.
Essentially, most searches are conducted based on time and/or track and/or source related search parameters. Full profile Content Management devices also support the potential for metadata search related parameters. More details, and examples, follow.

ISAPI command : /ISAPI/ContentMgmt/search

Method	GET or POST
Description	Search for specific resources.
Query	None.
Request	XML_VideoPic_CMSearchDescription
Response	Succeeded: XML_VideoPic_CMSearchResult Failed: XML_ResponseStatus

Please note the functions in the WEB interface are realized via ISAPI commands. Please login to the device via chrome with F12 debug mode, and you can see the details for the ISAPI command.



Example for the parameters

<?xml version: "1.0" encoding="utf-8"?>

<CMSearchDescription>

<searchID>C92DC285-8F30-0001-40C6-F0EFA8FB18B5</searchID>

<trackList>

<trackID>101</trackID></trackList>

<timeSpanList>

<timeSpan>

<startTime>2020-12-16T00:00:00Z</startTime>

<endTime>2020-12-18T23:59:59Z</endTime>

</timeSpan>

</timeSpanList>

<maxResults>100</maxResults>

<searchResultPostion>0</searchResultPostion>

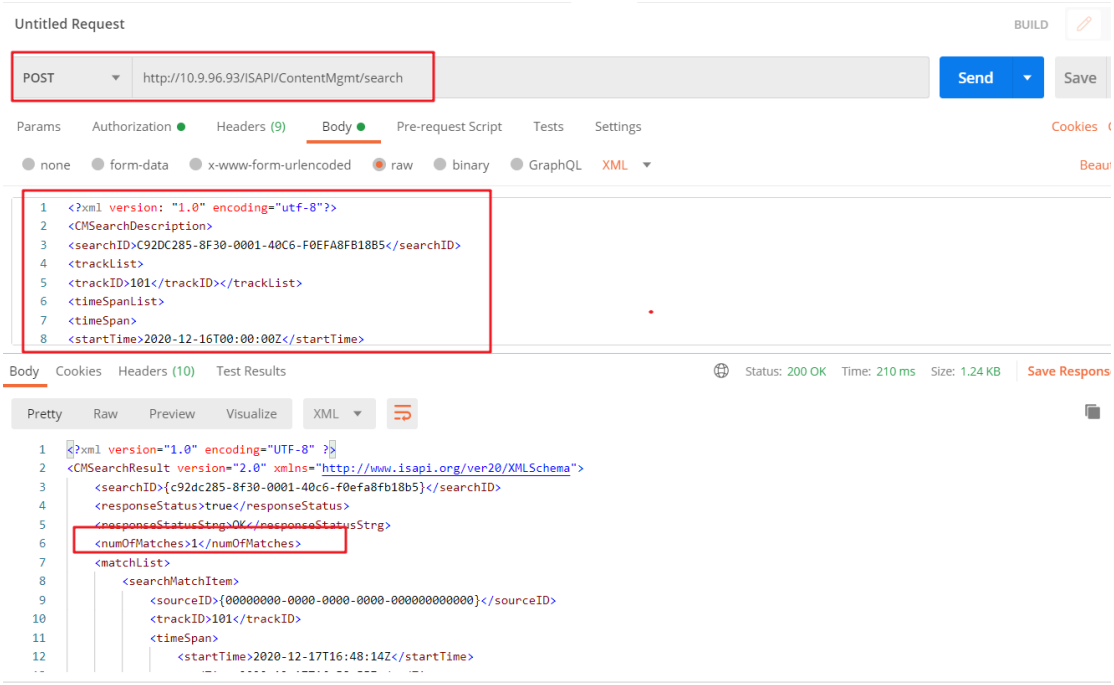
<metadataList>

<metadataDescriptor>//recordType.meta.std-cgi.com</metadataDescriptor>

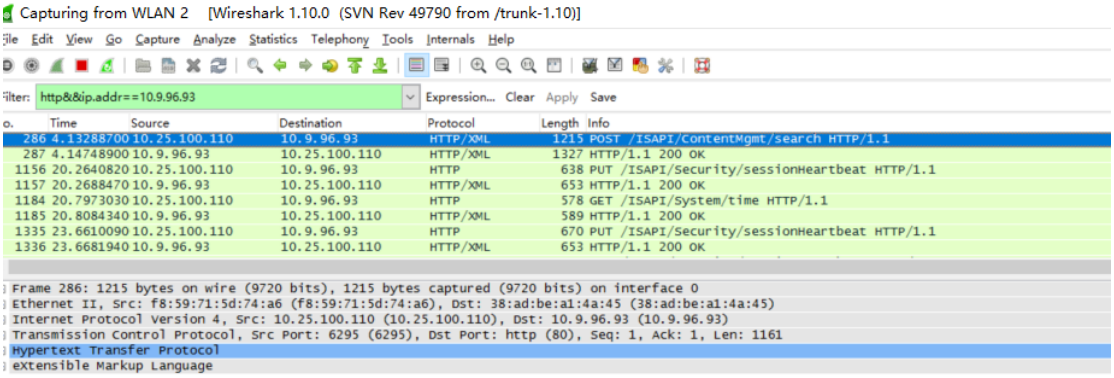
</metadataList>

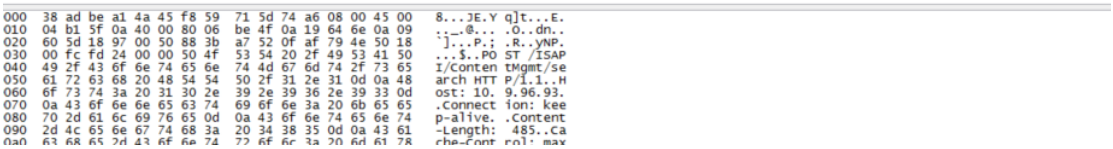
</CMSearchDescription>

Postman Test



When you operate the video search via WEB interface, you can also capture the network packages at the same time. In the network packages ,you can also get the detailed information as below.



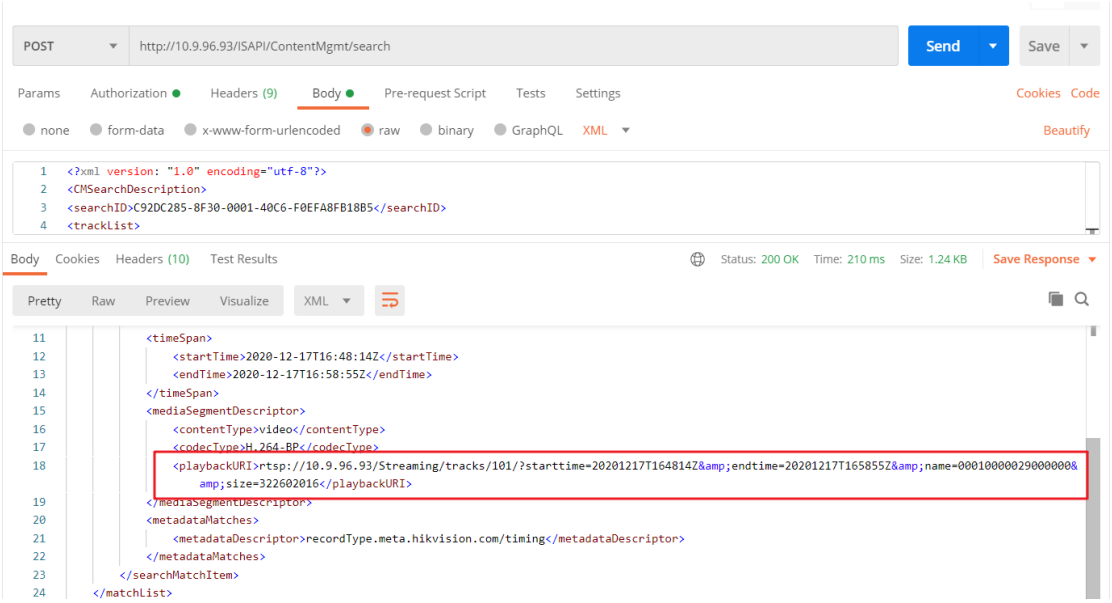


2. Download

ISAPI command: /ISAPI/ContentMgmt/download

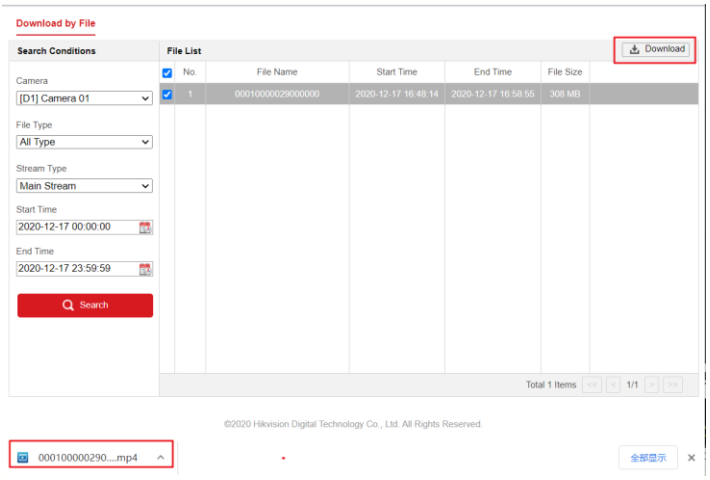
Method	POST
Description	Download the file.
Query	None.
Request	XML_downloadRequest
Response	File

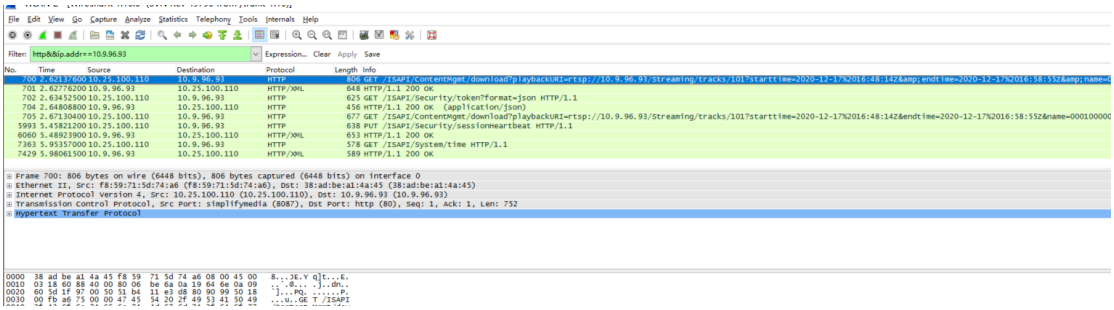
After the video search , you can get the **<playback URI>.**Please use <playback URI> to download the video file from the device.

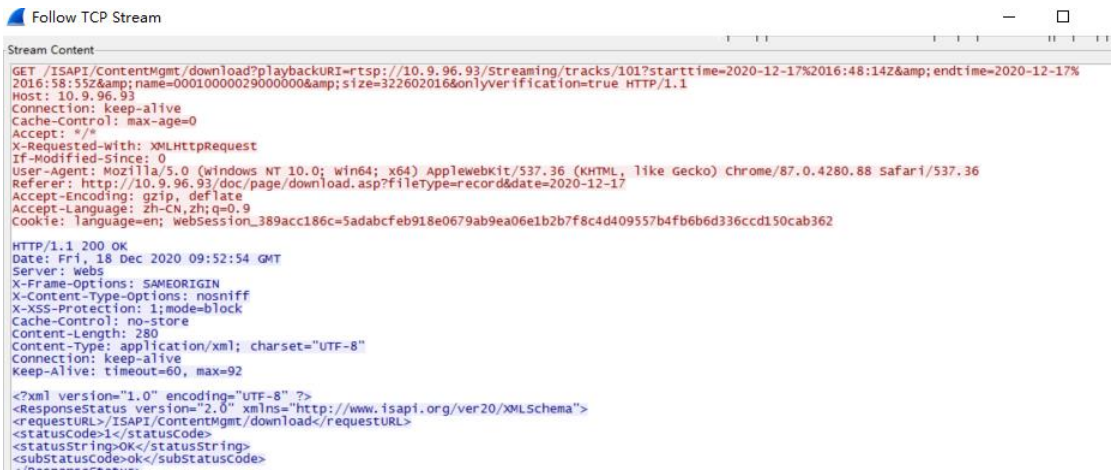



```
<playbackURI>rtsp://10.9.96.93/Streaming/tracks/101/?starttime=20201217T164814Z&amp;endtime=20201217T165855Z&amp;name=00010000029000000&amp;size=322602016</playbackURI>
```

If you download the video file via WEB interface and get the Wireshark capture at the same time, you can see the detailed information as below.







Please note that some devices support GET and POST methods to download the vide file. So you can use the ISAPI commands below:

GET

/ISAPI/ContentMgmt/download?playbackURI=rtsp://10.9.96.93/Streaming/tracks/101?starttime=2020-12-17%2016:48:14Z&endtime=2020-12-17%2016:58:55Z&name=0001000002900000&size=322602016

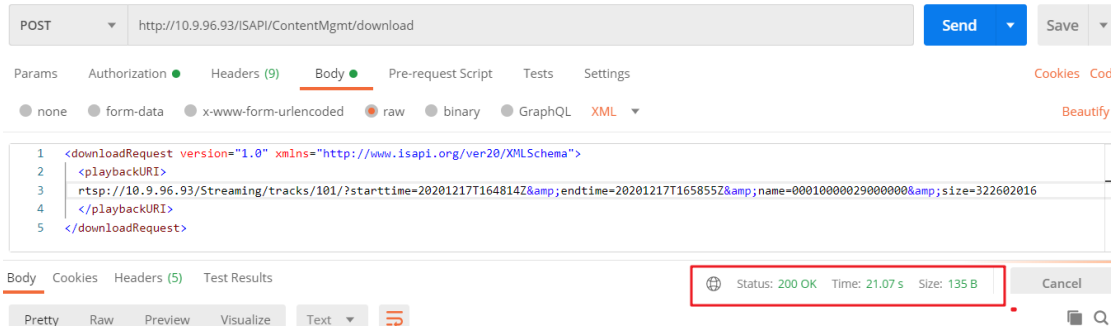
POST

/ISAPI/ContentMgmt/download

With requrest body parameters below:

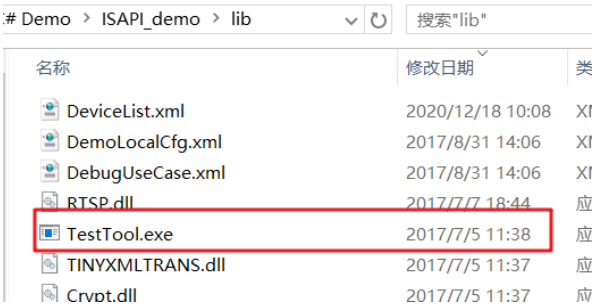
```
<downloadRequest version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <playbackURI>
  rtsp://10.9.96.93/Streaming/tracks/101/?starttime=20201217T164814Z&amp;endtime=20201217T165855Z&amp;name=00010000029000000&amp;size=322602016
  </playbackURI>
</downloadRequest>
```

Postman test

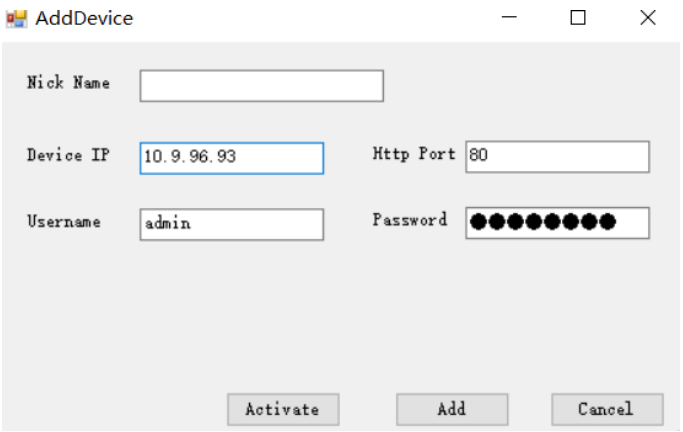


3. C# Demo Test

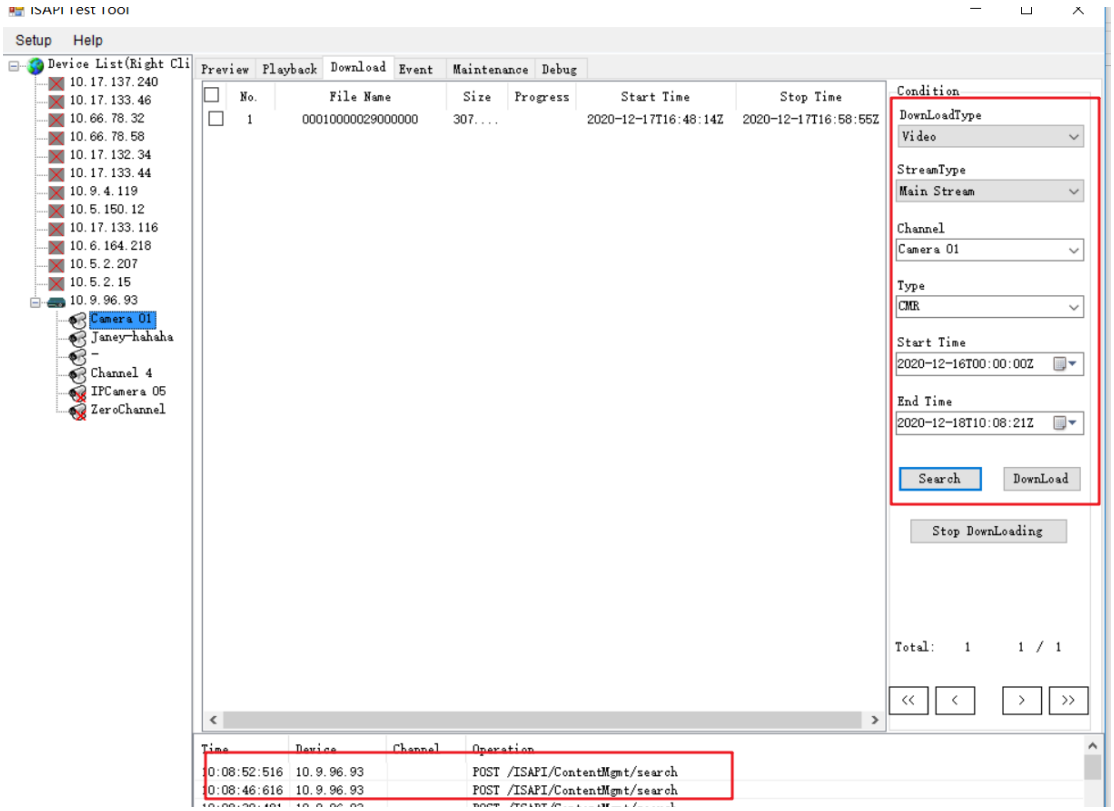
Step 1: Open the TestTool.exe



Step 2: Login to the device



Step 3: Search the video file via time



Step 4: Choose one video file for the download