

Matrox Monarch HD

Control API Guide

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Your notes

Using the Monarch HD Control API

This document describes how to use the Monarch HD HTTP-based Control API to control the streaming and recording functions for a Monarch HD device using third-party applications and scripting languages. Users and system integrators can create their own control software to start and stop streaming and recording, and get the status of a Monarch HD device.

Commands can be sent to Monarch HD using the following URL syntax (HTTP):

```
http://<username>:<password>@<ipAddress>/Monarch/synconnect/sdk.aspx?command=<command>
```

Where:

- <username> is the username that is set in the Monarch HD device (*admin*)
- <password> is the password that is set in the Monarch HD device (default: *admin*)
- <ipAddress> is the network IP address of the Monarch HD device
- <command> is one of the following commands:
 - GetStatus
 - StartStreaming
 - StartRecording
 - StartStreamingAndRecording
 - StopStreaming
 - StopRecording
 - StopStreamingAndRecording



Note For examples of how to use the command line in third-party applications, see [“Example third-party tools”](#) on page 4.

Commands

GetStatus

This command is used to acquire the current stream and record status of a Monarch HD device.

Returns:

```
RECORD: <state>, STREAM:<mode>,<state>, NAME:<devicename>
```

Where:

- <state> is ON, READY or DISABLED
- <mode> is RTSP, RTMP or DISABLED

- <devicename> is the name of the Monarch HD device as set by the client in the Monarch HD Command Center

The following table shows example returns based on the device name, operating mode, and stream/record status:

	Device name	Operating mode	Stream status	Record status
Example 1	Device1	Stream-and-record	RTMP - Not streaming	Not recording
	RECORD: READY, STREAM:RTMP,READY, NAME:DEVICE1			
Example 2	Device2	Stream-and-record	RTSP - Client not connected	Recording
	RECORD: ON, STREAM:RTSP,READY, NAME:DEVICE2			
Example 3	Device3	Stream-and-record	RTSP - Client connected	Recording
	RECORD: ON, STREAM:RTSP,ON, NAME:DEVICE3			
Example 4	Device4	Record-only	N/A	Not recording
	RECORD: READY, STREAM:DISABLED,DISABLED, NAME:DEVICE4			
Example 5	Device5	Stream-only	RTMP - Streaming	N/A
	RECORD: DISABLED, STREAM:RTMP,ON, NAME:DEVICE5			

StartStreaming

This command is used to start the stream function on a Monarch HD device that is set to RTMP mode.

Returns:

- SUCCESS, if streaming is enabled on the device (Stream-only or Stream-and-record mode) and the stream was started successfully. If the device is in RTSP mode, this command will return “SUCCESS” even if a client is not connected to Monarch HD.
- FAILED, if streaming is not enabled on the device (Record-only mode), or the RTMP stream could not be started.

StartRecording

This command is used to start the record function on a Monarch HD device.

Returns:

- SUCCESS, if recording is enabled on the device (Record-only or Stream-and-record mode) and the recording was started successfully.
- FAILED, if recording is not enabled on the device (Stream-only mode), or the recording could not be started.

StartStreamingAndRecording

This command is used to start the stream (RTMP mode) and record functions simultaneously on a Monarch HD device.

Returns:

- SUCCESS, if both streaming and recording are enabled on the device (Stream-and-record mode) and the stream and recording was started successfully. If the device is in RTSP mode, this command will return “SUCCESS” even if a client is not connected to Monarch HD.
- FAILED, if either streaming or recording is not enabled on the device (Stream-only or Record-only mode), or the RTMP stream or recording could not be started.

StopStreaming

This command is used to stop the stream function on a Monarch HD device that is set to RTMP mode.

Returns:

- SUCCESS, if streaming is enabled on the device (Stream-only or Stream-and-record mode) and the stream was stopped successfully. If the device is in RTSP mode, this command will return “SUCCESS” even if a client is still connected to Monarch HD.
- FAILED, if streaming is not enabled on the device (Record-only mode).

StopRecording

This command is used to stop the record function on a Monarch HD device.

Returns:

- SUCCESS, if recording is enabled on the device (Record-only or Stream-and-record mode) and the recording was stopped successfully.
- FAILED, if recording is not enabled on the device (Stream-only mode).

StopStreamingAndRecording

This command is used to stop the stream (RTMP mode) and record functions simultaneously on a Monarch HD device.

Returns:

- SUCCESS, if both streaming and recording are enabled on the device (Stream-and-record mode), and the stream and recording was stopped successfully. If the device is in RTSP mode, this command will return “SUCCESS” even if a client is still connected to Monarch HD.

- FAILED, if either streaming or recording is not enabled on the device (Stream-only or Record-only mode).

Example third-party tools

Different tools can be used to send commands to Monarch HD. Matrox has tested the following applications and scripting languages for use with Monarch HD:

- GNU Wget
- cURL
- C# (C Sharp)



Note In order for third-party applications to send commands to Monarch HD successfully, they must support username and password authentication.

The following are examples of how to use the Monarch HD API command line in third-party applications.

GNU Wget

```
wget --user=<username> --password=<password>
http://<ipAddress>/Monarch/synconnect/sdk.aspx?command=<command>
```

cURL

```
curl
http://<username>:<password>@<ipAddress>/Monarch/synconnect/sdk.aspx?command=<command>
```

PHP (cURL)

```
<?php
    $ch =
        curl_init("http://<username>:<password>@<ipAddress>/Monarch/syn
        cconnect/sdk.aspx?command=<command>");
    $response = curl_exec($ch);
    $header_size = curl_getinfo($ch,CURLINFO_HEADER_SIZE);
    print substr( $response, $header_size );
    curl_close($ch);
?>
```

C#

```
using System.Net;
WebClient webclient = new WebClient();
webclient.Credentials = new NetworkCredential("<username>",
"<password>");
string pageContent = string.Empty;
try
{
    using (Stream stream = webclient.OpenRead(new Uri (
"http://<ipAddress>/Monarch/synconnect/sdk.aspx?command=<command>
"))))
```



```
    {
        using (StreamReader reader = new StreamReader(stream))
        {
            pageContent = reader.ReadToEnd();
        }
    }
}
catch (WebException e)
{
}
```

Your notes



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