

Document History

No	Release Notes	Date	Version
1	Based on Old Version	2016-6-20	2.0
2	Add API Get max remote input channels	2016-6-30	2.01
3	Add API PTZ Move directly	2016-8-10	2.02
4	Add Chapter Bosch APIs	2016-8-16	2.03
5	Add API getLimitState	2016-8-16	2.04
6	1 Modify API Control the playback stream 2 Add auxiliary gap extend header	2016-8-20	2.05
7	Add chapter Record files protection	2016-8-20	2.06
8	Modify API Find logs	2016-08-31	2.07
9	Add API Create a motion file finder	2016-09-01	2.08
10	Add API Get daylight	2016-09-01	2.09
11	Add H.265 Support	2016-09-06	2.10

13 Bosch APIs

13.1 FileFindHelper

13.1.1 Create a file finder

Table 13-1

Syntax	<p>http://<server>/cgi-bin/FileFindHelper.cgi?action=startFind&condition.channel=<channelNo>&condition.startTime=<start>&condition.endTime=<end>&condition.streamType=<stream>[&condition.flags[0]=<flag>&condition.events[0]=<event>&combineMode.granularity=<granularityValue>&combineMode.types[0]=<combineType>]</p>
Method	GET
Description	Start Find files
Example	<p>Find file in channel 1, event type is "AlarmLocal" or "VideoMotion", and time between 2014-1-1 12:00:00 and 2015-1-10 12:00:00 and combine "AlarmLocal" or "VideoMotion" files with granularity 16 ,</p> <p>URL is:</p> <p>http://172.23.1.66/cgi-bin/fileFindHelper.cgi?action=startFind&condition.channel=1&condition.startTime=2014-1-1%2012:00:00&condition.endTime=2015-1-10%2012:00:00&condition.streamType=Main&condition.flags[0]=Event&condition.events[0]=AlarmLocal&condition.events[1]=VideoMotion&combineMode.granularity=16&combineMode.types[0]=AlarmLocal&combineMode.types[1]=VideoMotion</p>
Success Return	result=08137
Comment	<p>Start to find file with the above condition and combine files with certain type. If success, return find id, else return Error.</p> <p>Params in URL:</p> <p>channelNo: in which channel you want to find the file, start from 1.</p> <p>start / end: the start/end time when recording.</p> <p>flag: which flags of the file you want to find. It is an array. The index starts from 0. The range of flag is {"Timing", "Marked", "Event", "Restrict"}. If omitted, find files with all the flags.</p> <p>event: by which event the record file is triggered. It is an array. The index starts from 0. The range of event is {"AlarmLocal", "VideoMotion" }. This condition can be omitted. If omitted, find files of all the events.</p> <p>stream: which video stream type you want to find. The range of stream is {"Main", "Extra1", "Extra2", "Extra3"}.</p>

	items[0]. Length =1580 items[0]. Duration = 7200
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13.1.2 Create a motion file finder

Table 13-2

Syntax	<pre>http://<server>/cgi-bin/FileFindHelper.cgi?action=startMotionFind&condition.channel=<channelNo>&condition.startTime=<start>&condition.endTime=<end>&condition.streamType=<stream>&motionRegion.senseLevel=<level>[&motionRegion.rects[rectNo][0]=<rect0>&motionRegion.rects[rectNo][1]=<rect1>&motionRegion.rects[rectNo][2]=<rect2>&motionRegion.rects[rectNo][3]=<rect3>]</pre>
Method	GET
Description	Start Find Motion files
Example	<p>Find file in channel 1, event type is "AlarmLocal" or "VideoMotion", and time between 2014-1-1 12:00:00 and 2015-1-10 12:00:00, motion region is [0,0,21,17]</p> <p>URL is:</p> <pre>http://172.23.1.66/cgi-bin/fileFindHelper.cgi?action=startMotionFind&condition.channel=1&condition.startTime=2014-1-1%2012:00:00&condition.endTime=2015-1-10%2012:00:00&condition.streamType=Main&condition.flags[0]=Event&condition.events[0]=AlarmLocal&condition.events[1]=VideoMotion&motionRegion.senseLevel=1&motionRegion.rects[1][0]=0&motionRegion.rects[1][1]=0&motionRegion.rects[1][2]=21&motionRegion.rects[1][3]=17</pre>
Success Return	result=08137
Comment	<p>Start to find file with the above condition and combine files with certain type. If success, return find id, else return Error.</p> <p>Params in URL:</p> <p>channelNo: in which channel you want to find the file, start from 1.</p> <p>start / end: the start/end time when recording.</p> <p>flag: which flags of the file you want to find. It is an array. The index starts from 0. The range of flag is {"Timing", "Marked", "Event", "Restrict"}. If omitted, find files with all the flags.</p> <p>event: by which event the record file is triggered. It is an array. The index starts from 0. The range of</p>

	<p>event is {"AlarmLocal", "VideoMotion" }. This condition can be omitted. If omitted, find files of all the events.</p> <p>stream: which video stream type you want to find. The range of stream is {"Main", "Extra1", "Extra2", "Extra3"}.</p> <p>level: the motion sensitive level, range is 0–6, 0 represent all level</p> <p>rectNo: the rects array index, start from 1</p> <p>rect0 & rect1 & rect2 & rect3: relative coordinates, rect0 and rect2 range is 0-21, rect1 and rect3 range is 0-17. {0,0,0,0} top-left, {21,0,0,0} top-right, {0,17,0,0} bottom-left, {21,17,0,0} bottom-right</p>
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13.1.3 Get the file information found by the finder

Table 13-3

Syntax	http://<server>/cgi-bin/FileFindHelper.cgi?action=findNext&findId=< <i>findId</i> >&count=< <i>fileCount</i> >
Method	GET
Description	Find the next files no more than <i>fileCount</i> number.
Example	http://192.168.1.108/cgi-bin/FileFindHelper.cgi?action=findNext&findId=08137&count=100
Success Return	<pre> found=1 items[0]. channel =1 items[0]. startTime =2011-1-1 12:00:00 items[0]. endTime =2011-1-1 13:00:00 items[0]. fileType =dav items[0]. events[0]=AlarmLocal items[0]. streamType=Main items[0]. length =790 items[0]. duration = 3600 </pre>

Comment	<i>findId</i> : The find Id is created by API Create a file finder or API Create a motion file finder . Must create a finder before finding files.
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13.1.4 Stop the finder

Table 13-4

Syntax	http://<server>/cgi-bin/FileFindHelper.cgi?action=stopFind&findId=< <i>findId</i> >
Method	GET
Description	Stop find.
Example	http://192.168.1.108/cgi-bin/FileFindHelper.cgi?action=stopFind&findId =08137
Success Return	OK
Comment	<i>findId</i> : The find Id is created by API Create a file finder or API Create a motion file finder . Must create a finder before finding files.

13.1.5 Get bound files

Table 13-5

Syntax	http://<server>/cgi-bin/FileFindHelper.cgi?action=getBoundFile&condition.channel=< <i>ChannelNo</i> >&condition.startTime=< <i>start</i> >&condition.endTime=< <i>end</i> >&condition.streamType=< <i>stream</i> >[&condition.flags[0]=< <i>flag</i> >&condition.events[0]=< <i>event</i> >]
Method	GET
Description	Get bound files.
Example	http://<server>/cgi-bin/FileFindHelper.cgi?action=getBoundFile&condition.channel=1&condition.startTime=2014-1-1%2012:00:00&condition.endTime=2015-1-10%2012:00:00&condition.streamType=Main&condition.flags[0]=Timing
Success Return	found=2 items[0]. channel =1

	<pre> items[0]. startTime =2011-1-1 12:00:00 items[0]. endTime =2011-1-1 13:00:00 items[0]. flags [0]= Timing items[0]. streamType=Main items[0]. length =790 items[0]. duration = 3600 items[1]. channel =1 items[1]. startTime =2011-1-1 13:00:00 items[1]. endTime =2011-1-1 14:00:00 items[1]. events[0]= Timing items[1]. streamType=Main items[1]. length =790 items[1]. duration = 3600 </pre>
Comment	Params is same as FileFindHelper. startFind

13.2 BandLimit

13.2.1 getLimitState

Table 13-6

Syntax	<code>http://<server>/cgi-bin/BandLimit.cgi?action=getLimitState</code>
Method	GET
Description	Get bandwidth limit state.
Example	http://192.168.1.108/cgi-bin/bandLimit.cgi?action=getLimitState
Success Return	limit=true

Comment	
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13.3 Record files protection

13.3.1 Add protection

Table 13-7

Syntax	http://<server>/cgi-bin/FileManager.cgi?action=addConditionList&condition.Types[0]=<paramValue>&condition.StartTime=<paramValue>&condition.EndTime=<paramValue>&condition.Channel[0]=<paramValue>
Method	GET
Description	Add protection or access control for record files.
Example	http://192.168.1.108/cgi-bin/FileManager.cgi?action=addConditionList&condition.Types[0]=RecordRestrict&condition.Types[1]=RecordProtect&condition.StartTime=2014-7-3%2021:02:32&condition.EndTime=2014-7-3%2023:02:32&condition.Channel[0]=0&condition.Channel[1]=3
Success Return	OK
Comment	In below table: TypeIndex: The index of type array ChIndex: The index of channel number array

Appendix:

ParamName	ParamValue type	Description
condition.Type[TypeIndex]	string	An array. The range is {"RecordProtect", "RecordRestrict"}
condition.StartTime	string	The time format is "Y-M-D H-m-S", example 2011-7-3%2021:02:32
condition.EndTime	string	The time format is "Y-M-D H-m-S"
condition.Channel[ChIndex]	integer	Channel number starts from 1

13.3.2 Cancel protection

Table 13-8

Syntax	http://<server>cgi-bin/FileManager.cgi?action=cancelConditionList&condition.Types[0]=<paramValue>&condition.StartTime=<paramValue>&condition.EndTime=<paramValue>&condition.Channel[0]=<paramValue>
Method	GET
Description	Cancel protection of record files.
Example	http://192.168.1.108/cgi-bin/FileManager.cgi?action=cancelConditionList&condition.Types[0]=RecordRestrict&condition.Types[1]=RecordProtect&condition.StartTime=2014-7-3%2021:02:32&condition.EndTime=2014-7-3%2023:02:32&condition.Channel[0]=0&condition.Channel[1]=3
Success Return	OK
Comment	<i>paramValue</i> as Appendix above.

13.3.3 Remove protection

Table 13-9

Syntax	http://<server>/cgi-bin/FileManager.cgi?action=removeConditionList&condition.Types[0]=<paramValue>&condition.StartTime=<paramValue>&condition.EndTime=<paramValue>&condition.Channel[0]=<paramValue>
Method	GET
Description	Remove protection of record files.
Example	http://192.168.1.108/cgi-bin/FileManager.cgi?action=removeConditionList&condition.Types[0]=RecordRestrict&condition.Types[1]=RecordProtect&condition.StartTime=2014-7-3%2021:02:32&condition.EndTime=2014-7-3%2023:02:32&condition.Channel[0]=0&condition.Channel[1]=3
Success Return	OK

Comment	<i>paramValue</i> as Appendix above.
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13.4 Get daylight

Syntax	http://<server>/cgi-bin/global.cgi?action=getDST
Method	GET
Description	Get daylight saving time state.
Example	http://192.168.1.108/cgi-bin/global.cgi?action=getDST
Success Return	result = 1
Comment	<i>result:</i> 1/0, yes or not in daylight saving time

14 Other APIs

14.1 Discover devices

14.1.1 Discover devices on internet

Table 14-1

Syntax	http://<server>/cgi-bin/deviceDiscovery.cgi?action=attach[&DeviceClass=< <i>deviceClass</i> >]
Method	GET
Description	Discover devices on internet.
Example	http://192.168.1.108/cgi-bin/deviceDiscovery.cgi?action=attach&DeviceClass=VTO

Byte Order	16	17	18	19	20	21	22	24
Key	endTime				endMs		reserved	

If there is a gap between the video frames, the auxiliary packet may contain the gap extend header, the first timestamp means gap start time, the second timestamp means gap end time.

OperateId: it is valid when playback, which means this packet match with the playback control command.