IP Surveillance API
Image Service Specification

Version 2.5

HIKVISION

http://www.hikvision.com/

COPYRIGHT ©2009, Hikvision Digital Technology Co., Ltd

©2009 – 2014 by HIKVISION. All rights reserved.

Contents

1. Introduction 4
2. Conformance 4
3. Image Service and Resources 4
   - 3.1 /ISAPI/Image/channels 5
   - 3.2 /ISAPI/Image/channels/imageModes 5
   - 3.3 /ISAPI/Image/channels/imageMode/<ID> 6
   - 3.4 /ISAPI/Image/channels/<ID> 6
   - 3.5 /ISAPI/Image/channels/<ID>/ISPMode 7
   - 3.6 /ISAPI/Image/channels/<ID>/reset 8
   - 3.7 /ISAPI/Image/channels/<ID>/restore 9
   - 3.8 /ISAPI/Image/channels/<ID>/focusConfiguration 9
   - 3.9 /ISAPI/Image/channels/<ID>/lensInitialization 10
   - 3.10 /ISAPI/Image/channels/<ID>/imageFlip 10
   - 3.11 /ISAPI/Image/channels/<ID>/imageFreeze 11
   - 3.12 /ISAPI/Image/channels/<ID>/proportionalpan 11
   - 3.13 /ISAPI/Image/channels/<ID>/WDR 12
   - 3.14 /ISAPI/Image/channels/<ID>/BLC 13
   - 3.15 /ISAPI/Image/channels/<ID>/imageenhancement 14
   - 3.16 /ISAPI/Image/channels/<ID>/ircutFilter 14
   - 3.17 /ISAPI/Image/channels/<ID>/noiseReduce 15
   - 3.18 /ISAPI/Image/channels/<ID>/DSS 16
   - 3.19 /ISAPI/Image/channels/<ID>/whiteBalance 17
   - 3.20 /ISAPI/Image/channels/<ID>/exposure 18
   - 3.21 /ISAPI/Image/channels/<ID>/iris 19
   - 3.22 /ISAPI/Image/channels/<ID>/shutter 20
   - 3.23 /ISAPI/Image/channels/<ID>/gain 20
   - 3.24 /ISAPI/Image/channels/<ID>/sharpness 21
   - 3.25 /ISAPI/Image/channels/<ID>/gammaCorrection 22
   - 3.26 /ISAPI/Image/channels/<ID>/powerLineFrequency 22
   - 3.27 /ISAPI/Image/channels/<ID>/color 23
   - 3.28 /ISAPI/Image/channels/<ID>/scene 24
   - 3.29 /ISAPI/Image/channels/<ID>/EPTZ 24
   - 3.30 /ISAPI/Image/channels/<ID>/EIS 25
   - 3.31 /ISAPI/Image/channels/<ID>/HLC 25
   - 3.32 /ISAPI/Image/channels/<ID>/zoomLimit 26
   - 3.33 /ISAPI/Image/channels/<ID>/corridor 27
   - 3.34 /ISAPI/Image/channels/<ID>/dehaze 27
   - 3.35 /ISAPI/Image/channels/<ID>/capturemode 28
   - 3.36 /ISAPI/Image/channels/<ID>/irLight 29
   - 3.37 /ISAPI/Image/channels/<ID>/imageCap 29
   - 3.38 /ISAPI/Image/channels/<ID>/regionalExposure 30
   - 3.39 /ISAPI/Image/channels/<ID>/regionalFocus 30

©2009 – 2014 by HIKVISION. All rights reserved.

3.40 /ISAPI/Image/channels/<ID>/supplementLight 31
3.41 /ISAPI/Image/channels/<ID>/capabilities 32
3.42 /ISAPI/Image/channels/<ID>/shutter 34
3.43 /ISAPI/Image/channels/<ID>/exposure 34
3.44 /ISAPI/Image/channels/<ID>/lensDistortionCorrection 36
3.45 /ISAPI/Image/channels/<ID>/displayParamSwitch 36
3.46 /ISAPI/Image/channels/<ID>/displayParamSwitch/capabilities 38
3.47 /ISAPI/Image/channels/<ID>/mountingScenario 39
3.48 /ISAPI/Image/channels/<ID>/mountingScenario/capabilities 40
3.49 /ISAPI/Image/channels/<ID>/laserLight 40
3.50 /ISAPI/Image/channels/<ID>/laserLight/capabilities 42
3.51 /ISAPI/Image/channels/<ID>/opticalDehaze 43
3.52 /ISAPI/Image/channels/<ID>/opticalDehaze/capabilities 44
3.53 /ISAPI/Image/channels/<ID>/manualRanging 44
3.54 /ISAPI/Image/channels/<ID>/manualRanging/capabilities 45
3.55 /ISAPI/Image/channels/<ID>/OIS/capabilities 45
3.56 /ISAPI/Image/channels/<ID>/OIS 46
3.57 /ISAPI/Image/channels/<ID>/DPC/correction 46
3.58 /ISAPI/Image/channels/<ID>/DPC/correction/capabilities 47
3.59 /ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment/capabilities 47
3.60 /ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment 48
4. Revision History 49

©2009 – 2014 by HIKVISION. All rights reserved.

1. Introduction

The specification mainly introduces Imaging Services included in the ISAPI protocol. The imaging service provides configuration and control data for imaging specific properties.

2. Conformance

All of interface definition in this specification is consistent with that of ISAPI protocol, the specification is a part of ISAPI protocol. The architecture, glossary and relationship are consistent with ISAPI IPMD documentation.

3. Image Service and Resources

/ISAPI/Image	**Service v2.0**

Notes:

Some of front-end parameters support two kinds of image parameters: Day/Night. If you want to configure parameters for Day mode, you just need to add /day at the end of URL; If you want to configure parameters for Night mode, you just need to add /night at the end of URL.

Example:

1. **Day Mode**: /ISAPI/Image/channels/1/color/day

```
<Color version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <brightnessLevel>45</brightnessLevel>
    <contrastLevel>45</contrastLevel>
</Color>
```

2. **Night Mode**: /ISAPI/Image/channels/<ID>/color/night

```
<Color version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <brightnessLevel>55</brightnessLevel>
    <contrastLevel>55</contrastLevel>
</Color>
```

3. **Auto Mode**: /ISAPI/Image/channels/<ID>/color

```
<Color version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <brightnessLevel>50</brightnessLevel>
    <contrastLevel>50</contrastLevel>
    <saturationLevel>50</saturationLevel>
    <hueLevel>50</ hueLevel >
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
</Color>
```

3.1 /ISAPI/Image/channels

/ISAPI/Image/channels	General Resource v2.0
GET	
Description	It is used to get the list of channel Image configuration.
Query	None
Inbound Data	None
Success Return	**ImageChannellist**
PUT	
Description	It is used to update Image configuration for all channels.
Query	None
Inbound Data	**ImageChannellist**
Success Return	**ResponseStatus**
Notes:	

ImageChannellist XML Block

```
<ImageChannellist version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ImageChannel/>   <!--opt-->
</ImageChannellist>
```

3.2 /ISAPI/Image/channels/imageModes

ISAPI/Image/channels/imageModes	General Resource v2.0
GET	
Description	Get default parameter of image mode
Query	None
Inbound Data	None
Success Return	ImageModeList
Notes: Under different scenes, we will recommend setting different image parameters for the device, this interface is used to get default image mode.	

ImageModeList XML Block

```
<ImageModeList version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ImageMode/>   <!-- opt -->
</ImageModeList>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.3 /ISAPI/Image/channels/imageMode/<ID>

ISAPI/Image/channels/imageModes/ID	General Resource v2.0
GET	
Description	get default parameter of image mode
Query	None
Inbound Data	None
Success Return	ImageMode
Notes:	

ImageMode XML Block

```
<ImageMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <type> <!-- req, xs:string, "standard, indoor, outdoor, dimLight"> </type>
  <recommendation>   <!-- req, ro -->
    <brightnessLevel> <!-- opt, xs:integer, 0..100 --> </brightnessLevel>
      <contrastLevel> <!-- opt, xs:integer, 0..100 --> </contrastLevel>
      <sharpnessLevel> <!-- opt, xs:integer, 0..100 --> </sharpnessLevel>
      <saturationLevel> <!-- opt, xs:integer, 0..100 --> </saturationLevel>
      <hueLevel> <!-- opt, xs:integer, 0..100 --> </hueLevel>
      <deNoiseLevel> <!-- opt, xs:integer, 0..100 --> </deNoiseLevel>
  <recommendation>
</ImageMode>
```

3.4 /ISAPI/Image/channels/<ID>

/ISAPI/Image/channels/<ID>	General Resource v2.0
GET	
Description	It is used to get a specific channel Image configuration.
Query	None
Inbound Data	None
Success Return	**ImageChannel**
PUT	
Description	It is used to update Image configuration for a specific channel.
Query	None
Inbound Data	**ImageChannel**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>: front-end image parameters under Auto Mode /ISAPI/Image/channels/<ID>/day front-end image parameters under Day Mode	

©2009 – 2014 by HIKVISION. All rights reserved.

/ISAPI/Image/channels/<ID>/night front-end image parameters under Night Mode

ImageChannel XML Block

```
<ImageChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!-- req, xs:integer --></id>
  <enabled>   <!-- req, xs:boolean -->   </enabled>
  <videoInputID>         <!-- req, xs:integer -->   </videoInputID>
  <Focusconfiguration/> <!-- opt -->
  <LensInitialization/> <!-- opt -->
  <ImageFlip/> <!-- opt -->
  <ImageFreeze/> <!-- opt -->
  <proportionalpan/> <!-- opt -->
  <WDR/> <!-- opt -->
  <BLC/> <!-- opt -->
  <NoiseReduce/> <!-- opt -->
  <ImageEnhancement/> <!-- opt -->
  <DSS/> <!-- opt -->
  <WhiteBlance/> <!-- opt -->
  <Exposure/> <!-- opt -->
  <Sharpness/> <!-- opt -->
  <gammaCorrection/> <!-- opt -->
  <powerLineFrequency/> <!-- opt -->
  <Color/> <!-- opt -->
  <IrcutFilter/> <!-- opt -->
  <Scene/> <!-- opt -->
  < EPTZ/ > <!-- opt -->
  <EIS/> <!-- opt -->
  <HLC/> <!-- opt -->
  <ZoomLimit/> <!-- opt -->
  <corridor/> <!-- opt -->
  <Dehaze/> <!-- opt -->
  <ImageMode/> <!--opt, xs:string, "standard, indoor, outdoor, dimLight" -->
  <enableImageLossDetection>   <!-- opt, Boolean -->   </enableImageLossDetection>
  <CaptureMode/> <!-- opt -->
  <IrLight/> <!-- opt -->
  <LensDistortionCorrection/> <!-- opt -->
</ImageChannel>
```

3.5 /ISAPI/Image/channels/<ID>/ISPMode

/ISAPI/Image/channels/<ID>/ISPMode	**General Resource**	**v2.0**
GET		

©2009 – 2014 by HIKVISION. All rights reserved.

Description	Get the parameters of Day/Night Mode
Query	None
Inbound Data	None
Success Return	**ISPMode**
PUT	
Description	Set the parameters of Day/Night Mode
Query	None
Inbound Data	**ISPMode**
Success Return	**ResponseStatus**
Notes:	

ISPMode XML Block

```
<ISPMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode>
    <!-- opt, xs:string, "auto,schedule"-->
  </mode>
  <Schedule> <!--dep-->
    <scheduleType><!—req,xs:string,"day,night"></scheduleType>
    <TimeRange> <!-- req -->
      <beginTime> <!-- req, xs:time, ISO8601 time --> </beginTime>
      <endTime> <!-- req, xs:time, ISO8601 time --> </endTime>
    </TimeRange>
  </Schedule>
</ISPMode>
```

3.6 /ISAPI/Image/channels/<ID>/reset

/ISAPI/Image/channels/<ID>/reset	**General Resource v2.0**
PUT	
Description	It is used to reset an image channel (cut off the power and reboot the speed dome).
Query	None
Inbound Data	None
Success Return	**ResponseStatus**
Notes: Image reset only reboot the camera unit.	

©2009 – 2014 by HIKVISION. All rights reserved.

3.7 /ISAPI/Image/channels/<ID>/restore

/ISAPI/Image/channels/<ID>/restore	General Resource v2.0
PUT	
Description	It is used to restore the image configure parameter to the default factory settings.
Query	None
Inbound Data	None
Success Return	**ResponseStatus**
Notes:	

3.8 /ISAPI/Image/channels/<ID>/focusConfiguration

/ISAPI/Image/channels/<ID>/focusConfiguration	General Resource v2.0
GET	
Description	It is used to get focus parameters of a specified image channel.
Query	None
Inbound Data	None
Success Return	**FocusConfiguration**
PUT	
Description	It is used to update focus parameters of a specified image channel.
Query	None
Inbound Data	**FocusConfiguration**
Success Return	**ResponseStatus**
Notes: AUTO: auto focus MANUAL: manual focus SEMIAUTOMATIC: semi automatic focusPosition's PUT operator is enabled only when FocusStyle's value is MANUAL. focusSpeed: focus vector data. Negative numbers focus near, positive numbers focus far. Numerical value is a percentage of the maximum focus speed of the lens module.	

FocusConfiguration XML Block

```
<FocusConfiguration version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <focusStyle/>    <!-- req, xs:string, "AUTO, MANUAL, SEMIAUTOMATIC" -->
  <focusLimited/>    <!-- opt, xs:integer -->
  <focusPosition/>    <!-- dep,depends on <FocusStyle>, xs:integer -->
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
  <focusSpeed>    <!-- opt, xs:intger -->    </focusSpeed>
</FocusConfiguration>
```

3.9 /ISAPI/Image/channels/<ID>/lensInitialization

/ISAPI/Image/channels/<ID>/lensInitialization	General Resource v2.0
GET	
Description	
Query	None
Inbound Data	None
Success Return	**LensInitialization**
PUT	
Description	It is used to modify the initialization status of the lens of a specified image channel.
Query	None
Inbound Data	**LensInitialization**
Success Return	**ResponseStatus**
Notes:	

LensInitialization XML Block

```
<LensInitialization version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <enabled/>                <!-- req, xs:boolean -->
</LensInitialization>
```

3.10 /ISAPI/Image/channels/<ID>/imageFlip

/ISAPI/Image/channels/<ID>/ImageFlip	General Resource v2.0
GET	
Description	It is used to get the mirror status of a specified image channel.
Query	None
Inbound Data	None
Success Return	**ImageFlip**
PUT	
Description	It is used to update mirror status of a specified image channel.
Query	None
Inbound Data	**ImageFlip**
Success Return	ResponseStaus **ResponseStatus**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

ImageFlipStyle is enabled only when the value is true.

ImageFlip XML Block

```
<ImageFlip version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <enabled/>                <!--req, xs:boolean -->
  <ImageFlipStyle/>   <!--opt, xs:string, "LEFTRIGHT, UPDOWN, CENTER, AUTO" -->
</ImageFlip>
```

3.11 /ISAPI/Image/channels/<ID>/imageFreeze

/ISAPI/Image/channels/<ID>/imageFreeze	**General Resource v2.0**
GET	
Description	It is used to get ImageFreeze status of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**ImageFreeze**
PUT	
Description	It is used to update ImageFreeze status of a specified image channel.
Query	None
Inbound Data	**ImageFreeze**
Success Return	ResponseStaus **ResponseStatus**
Notes:	

ImageFreeze XML Block

```
<ImageFreeze version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <enabled/>                <!-- req, xs:boolean -->
</ImageFreeze>
```

3.12 /ISAPI/Image/channels/<ID>/proportionalpan

/ISAPI/Image/channels/<ID>/proportionalpan	**General Resource v2.0**
GET	
Description	It is used to get proportional pan status of a specified image channel.
Query	None
Inbound Data	None
Success Return	**proportionalpan**
PUT	
Description	It is used to update proportional pan status of a specified image

©2009 – 2014 by HIKVISION. All rights reserved.

	channel.
Query	None
Inbound Data	**proportionalpan**
Success Return	ResponseStaus **ResponseStatus**
Notes:	

proportionalpan XML Block

```
<proportionalpan version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <enabled/> <!--req, xs:boolean -->
</proportionalpan >
```

3.13 /ISAPI/Image/channels/<ID>/WDR

/ISAPI/Image/channels/<ID>/WDR	**General Resource v2.0**
GET	
Description	It is used to get the value of wide dynamic range for a specified Image channel.
Query	None
Inbound Data	None
Success Return	**WDR**
PUT	
Description	It is used to configure the value of wide dynamic range for a specified Image channel.
Query	None
Inbound Data	**WDR**
Success Return	**ResponseStatus**
Notes: <WDRLevelExt> is optional, some cameras may use more than one levels to control WDR working. <mode> value contains "open","close" or "auto" , some cameras may not support "auto" mode . If a camera works in auto mode, WDR would be automatically open or close according to different scenes. /ISAPI/Image/channels/<ID>/WDR //stands for WDR parameters under Auto Mode /ISAPI/Image/channels/<ID>/WDR/day //stands for WDR parameters under Day Mode /ISAPI/Image/channels/<ID>/WDR/night //stands for WDR parameters under Night Mode	

WDR XML Block

©2009 – 2014 by HIKVISION. All rights reserved.

```
<WDR version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <mode>       <!-- req, xs:string,"open,close,auto"--> </mode>
   <WDRLevel><!--opt,xs:integer--> </WDRLevel>
   <WDRContrastLevel> <!--opt, xs:integer --> </WDRContrastLevel>
   < WDRLevel1> <!--opt,xs:integer--> < /WDRLevel1>
</WDR >
```

3.14 /ISAPI/Image/channels/<ID>/BLC

/ISAPI/Image/channels/<ID>/BLC	**General Resource v2.0**
GET	
Description	It is used to get the configuration of backlight compensation for a specified image channel.
Query	None
Inbound Data	None
Success Return	**BLC**
PUT	
Description	It is used to configure the configuration of backlight compensation for a specified image channel.
Query	None
Inbound Data	**BLC**
Success Return	ResponseStaus **ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/BLC //stands for BLC parameters under Auto Mode /ISAPI/Image/channels/<ID>/BLC/day //stands for BLC parameters under Day Mode /ISAPI/Image/channels/<ID>/BLC/night //stands for BLC parameters under Night Mode	

BLC XML Block

```
<BLC version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
   <enabled/>       <!-- req, xs:boolean -->
   <BLCMode/>       <!--opt, xs:string, "UP, DOWN, LEFT, RIGHT, CENTER , MULTI-AREA,Region" -->
   <BLCLevel>   <!-- opt,xs:integer--></BLCLevel>
   <BLCRegionList><!--dep-->
   <BLCRegion>
     <id> <!--req,integer--></id>
   <RegionCoordinatesList/>
   </BLCRegion>
   </BLCRegionList>
</BLC>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.15 /ISAPI/Image/channels/<ID>/imageenhancement

/ISAPI/Image/channels/<ID>/imageenhancement	General Resource v2.0
GET	
Description	It is used to get the ImageEnhancement's configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**ImageEnhancement**
PUT	
Description	It is used to configure the ImageEnhancement's configuration of a specified image channel.
Query	None
Inbound Data	**ImageEnhancement**
Success Return	ResponseStaus **ResponseStatus**
Notes:	

Imageenhancement XML Block

```
<ImageEnhancement version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <enabled/> <!-- req, xs:boolean -->
   <ImageEnhancementLevel> <!—opt, xs:integer -->
</ISAPI/ImageEnhancement>
```

3.16 /ISAPI/Image/channels/<ID>/ircutFilter

/ISAPI/Image/channels/<ID>/IrcutFilter	General Resource v2.0
GET	
Description	It is used to get the IrcutFilter's configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**IrcutFilter**
PUT	
Description	It is used to configure the IrcutFilter's configuration of a specified image channel.
Query	None
Inbound Data	**IrcutFilter**
Success Return	**ResponseStatus**

©2009 – 2014 by HIKVISION. All rights reserved.

Notes:

IrcutFilter XML Block

```
<IrcutFilter version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<IrcutFilterType>
    <!-- opt, xs:string, " auto, day, night,schedule,eventTrigger"-->
</IrcutFilterType>
<dayToNightFilterLevel><!--opt, xs:string, "low, normal, high" --></dayToNightFilterLevel>
<dayToNightFilterTime> <!--opt xs:integer --> </dayToNightFilterTime>
<nightToDayFilterLevel><!--opt,xs:string, "low, normal, high" --></nightToDayFilterLevel>
<nightToDayFilterTime> <!--opt xs:integer --></nightToDayFilterTime>
<Schedule> <!--dep-->
    <scheduleType><!—req,xs:string,"day,night"></scheduleType>
<TimeRange> <!-- req -->
<beginTime> <!-- req, xs:time, ISO8601 time --> </beginTime>
<endTime> <!-- req, xs:time, ISO8601 time --> </endTime>
</TimeRange>
</Schedule>
<EventTrigger> <!--dep-->
    <eventType><!--req,xs:string,"IO,VMD"></eventType>
    <IrcutFilterAction> <!--req,xs:string,"day,night"> </ IrcutFilterAction >
</EventTrigger>
</IrcutFilter>
```

3.17 /ISAPI/Image/channels/<ID>/noiseReduce

/ISAPI/Image/channels/<ID>/noiseReduce	General Resource v2.0
GET	
Description	It is used to get 3D noise-reduce parameters of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**NoiseReduce**
PUT	
Description	It is used to configure3D noise-reduce parameter of a specified Image channel.
Query	None
Inbound Data	**NoiseReduce**
Success Return	**ResponseStatus**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

3D noise-reduce method is related to 2D noise-reduce.
2D noise-reduce method is a noise-reduce method which tries to reduce the noise in the frame.
3D noise reduce method can reduce noise in the frame and the noice between ervery adjacent two frames. 3D nosie-reduce depend on FrameNoiseReduceLevel and InterFrameNoiseReduceLevel, FrameNoiseReduceLevel affects noise-reduce between frams, InterFrameNoiseReduceLevel affects noise-reduce in the frame.

If the GeneralMode was chosen, the generalLevel will be used, and then the FrameNoiseReduceLevel and InterFrameNoiseReduceLevel would be set to the same value as generalLevel.
/ISAPI/Image/channels/<ID>/nosiseReduce //stands for noiseReduce parameters under Auto Mode
/ISAPI/Image/channels/<ID>/nosiseReduce/day //stands for noiseReduce parameters under Day Mode
/ISAPI/Image/channels/<ID>/nosiseReduce/night //stands for noiseReduce parameters under Night Mode

NosiseReduce XML Block

```
<NoiseReduce version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
<mode><!--req,xs:string,"close, general, advanced"--></mode>
<GeneralMode>   <!--dep,depends on <mode> -->
    <generalLevel><!--req,xs:integer--></generalLevel>
</GeneralMode>
<AdvancedMode> <!-- dep -->
    <FrameNoiseReduceLevel><!--req,xs:integer--></FrameNoiseReduceLevel>
    <InterFrameNoiseReduceLevel><!--req,xs:integer--></InterFrameNoiseReduceLevel>
</AdvancedMode>
</NoiseReduce>
```

3.18 /ISAPI/Image/channels/<ID>/DSS

/ISAPI/Image/channels/<ID>/DSS	**General Resource v2.0**
GET	
Description	It is used to get the configuration of digital slow shutter for a specified Image channel.
Query	None
Inbound Data	None
Success Return	**DSS**
PUT	
Description	It is used to configure the configuration of digital slow shutter for a specified Image channel.

©2009 – 2014 by HIKVISION. All rights reserved.

Query	None
Inbound Data	**DSS**
Success Return	ResponseStaus **ResponseStatus**
Notes: DSSLevel is only enabled when enabled value is true. DSSLevel"*2": indicates the speed is 2 times of normal shutter.	

DSS XML Block

```
<DSS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <enabled/>              <!-- req, xs:boolean -->
   <DSSLevel/>                          <!—opt,                    xs:string,"*1.25,*1.5,
*2,*3*4,*6,*8,*12,*16,*24,*32,*48,*64,*96,*128,*256,*512"-->
</DSS>
```

3.19 /ISAPI/Image/channels/<ID>/whiteBalance

/ISAPI/Image/channels/<ID>/whiteBalance	**General Resource v2.0**
GET	
Description	It is used to get the WhiteBalance value of a specified iImage channel.
Query	None
Inbound Data	None
Success Return	**WhiteBalance**
PUT	
Description	It is used to configure the WhiteBalance value of a specified iImage channel.
Query	None
Inbound Data	**WhiteBalance**
Success Return	**ResponseStatus**
Notes: WhiteBlanceRed and WhiteBalanceBlue's PUT operator is enabled only when WhiteBlanceStyle's value is manual. /ISAPI/Image/channels/<ID>/whiteBalance //stands for whiteBalance parameters under Auto Mode /ISAPI/Image/channels/<ID>/whiteBalance/day //stands for whiteBalance parameters under Day Mode /ISAPI/Image/channels/<ID>/whiteBalance/night //stands for whiteBalance parameters under Night Mode	

©2009 – 2014 by HIKVISION. All rights reserved.

WhiteBalance XML Block

```
<WhiteBalance version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <WhiteBalanceStyle/> <!-- req, xs:string, "auto, manual, indoor, outdoor, autotrace,
            onece, sodiumlight, mercurylight" -->
  <WhiteBalanceRed/>  <!--dep, depends on <WhiteBlanceStyle>,xs:integer, -->
  <WhiteBalanceBlue/>  <!--dep, depends on <WhiteBlanceStyle>,xs:integer -->
</WhiteBalance>
```

3.20 /ISAPI/Image/channels/<ID>/exposure

/ISAPI/Image/channels/<ID>/exposure	**General Resource v2.0**
GET	
Description	It is used to get the exposure mode of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Exposure**
PUT	
Description	It is used to configure the exposure mode of a specified image channel.
Query	None
Inbound Data	**Exposure**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/exposure //stands for exposure parameters under Auto Mode /ISAPI/Image/channels/<ID>/exposure/day //stands for exposure parameters under Day Mode /ISAPI/Image/channels/<ID>/exposure/night //stands for exposure parameters under Night Mode	

Exposure XML Block

```
<Exposure version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ExposureType/>  <!--req, xs:string, "auto, IrisFirst, ShutterFirst, gainFirst, manual, pIris,
T5280-PQ1,T5289-PQ1,T1140-PQ1,T2712-PQ1" -->
  <autoIrisLevel><!—dep,xs:integer> <autoIrisLevel>
  <OverexposeSuppress> <!--opt-->
    <enabled> <!--req, xs:boolean --> </enabled>
     <Type>  <!--dep, depends on <enabled>, xs:string, "AUTO, MANUAL" --> </Type>
    <DistanceLevel> <!--dep, depends on  <Type>, xs: integer --> </DistanceLevel>
    <shortIRDistanceLevel>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
        <!--dep, depends on   <Type>, xs: integer -->
      </shortIRDistanceLevel>
      <longIRDistanceLevel>
        <!--dep, depends on   <Type>, xs: integer -->
      </longIRDistanceLevel>
   </OverexposeSuppress>
   <pIris>   <!—opt-->
      <pIrisType/> <!—dep, depends on <ExposureType>, xs:string, “AUTO, MANUAL” -->
      <IrisLevel> <!--dep, depends on <pIrisType>, xs:integer --> </IrisLevel>
   <pIris>
</Exposure>
```

3.21 /ISAPI/Image/channels/<ID>/iris

/ISAPI/Image/channels/<ID>/iris	General Resource v2.0
GET	
Description	It is used to get the iris's value of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Iris**
PUT	
Description	It is used to configure the iris's value of a specified image channel.
Query	None
Inbound Data	**Iris**
Success Return	**ResponseStatus**
Notes: Iris’s PUT operate is enabled only when <ExposureType> is IrisFirst irisSpeed: negative numbers close iris, positive numbers open iris. Numerical value is a percentage of the maximum iris speed of the lens module.	

IrisValue XML Block

```
<Iris version=“1.0” xmlns=“http://www.isapi.org/ver20/XMLSchema”>
   <IrisLevel/>   <!-- req, xs:integer -->
   <irisSpeed>      <!-- opt, xs:integer --> </irisSpeed>
</Iris>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.22 /ISAPI/Image/channels/<ID>/shutter

/ISAPI/Image/channels/<ID>/shutter	General Resource v2.0
GET	
Description	It is used to get the Shutter value of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Shutter**
PUT	
Description	It is used to configure the Shutter value of a specified image channel.
Query	None
Inbound Data	**Shutter**
Success Return	**ResponseStatus**
Notes: PUT method is enabled only when <ExposureType> is ShutterFirst	

Shutter XML Block

```
<Shutter version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ShutterLevel>  <!-- dep,depends on <ExposureType>, xs:string, "1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/125, 1/150, 1/175, 1/215, 1/225, 1/300, 1/400, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000,"  --> <ShutterLevel>
  </Shutter>
```

3.23 /ISAPI/Image/channels/<ID>/gain

/ISAPI/Image/channels/<ID>/gain	General Resource v2.0
GET	
Description	It is used to get the gain configuration of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**Gain**
PUT	
Description	It is used to configure the gain configuration of a specified Image channel.
Query	None
Inbound Data	**Gain**
Success Return	**ResponseStatus**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

PUT method is enabled only when <ExposureType> is gainFirst.

Gain XML Block

```
<Gain version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <GainLevel/>   <!--dep,depends on <ExposureType>, xs:integer -- -->
    <GainWindow><!-- opt -->
    <RegionCoordinatesList> <!-- opt -->
    <RegionCoordinates><!-- opt -->
    <positionX><!-- req, xs:integer;coordinate --></positionX>
    <positionY><!-- req, xs:integer;coordinate --></positionY>
    </RegionCoordinates>
    </RegionCoordinatesList>
    </GainWindow>
</Gain>
```

3.24 /ISAPI/Image/channels/<ID>/sharpness

/ISAPI/Image/channels/<ID>/sharpness	**General Resource v2.0**
GET	
Description	It is used to get the sharpness's value of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Sharpness**
PUT	
Description	It is used to configure the sharpness's value of a specified image channel.
Query	None
Inbound Data	**Sharpness**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/sharpness //stands for sharpness parameters under Auto Mode /ISAPI/Image/channels/<ID>/sharpness/day //stands for sharpness parameters under Day Mode /ISAPI/Image/channels/<ID>/sharpness/night //stands for sharpness parameters under Night Mode	

Sharpness XML Block

```
<Sharpness version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <SharpnessMode><!--opt, xs:string,"manual,auto" --></ SharpnessMode>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
  <SharpnessLevel/>   <!--req, xs:integer-->
</Sharpness>
```

3.25 /ISAPI/Image/channels/<ID>/gammaCorrection

/ISAPI/Image/channels/<ID>/gammaCorrection	General Resource v2.0
GET	
Description	It is used to get the gamma correction of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**gammaCorrection**
PUT	
Description	It is used to configure the gamma correction of a specified Image channel.
Query	None
Inbound Data	**gammaCorrection**
Success Return	**ResponseStatus**
Notes:	

gammaCorrection XML Block

```
<gammaCorrection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <gammaCorrectionEnabled> <!-- opt, xs:boolean --> </gammaCorrectionEnabled>
    <gammaCorrectionLevel> <!-- opt, xs:integer --> </gammaCorrectionLevel>
</gammaCorrection>
```

3.26 /ISAPI/Image/channels/<ID>/powerLineFrequency

/ISAPI/Image/channels/<ID>/powerLineFrequency	General Resource v2.0
GET	
Description	It is used to get the powerLineFrequency value of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**powerLineFrequency**
PUT	

©2009 – 2014 by HIKVISION. All rights reserved.

Description	It is used to configure the powerLineFrequency value of a specified Image channel.
Query	None
Inbound Data	**powerLineFrequency**
Success Return	**ResponseStatus**
Notes: To configure the powerlineFrequency requires rebooting the camera.	

powerlineFrequency XML Block

```
<powerLineFrequency version="2.0" mlns="http://www.isapi.org/ver20/XMLSchema">
    <powerLineFrequencyMode />   <!-- opt, xs:string "50hz, 60hz" -->
</powerLineFrequency >
```

3.27 /ISAPI/Image/channels/<ID>/color

/ISAPI/Image/channels/<ID>/color	**General Resource v2.0**
GET	
Description	It is used to get the color's value of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**Color**
PUT	
Description	It is used to configure the color's value of a specified Image channel.
Query	None
Inbound Data	**Color**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/color //stands for color parameters under Auto Mode /ISAPI/Image/channels/<ID>/color/day // stands for color parameters under Day Mode /ISAPI/Image/channels/<ID>/color/night // stands for color parameters under Night Mode	

Color XML Block

```
<Color version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
        <brightnessLevel>        <!-- opt, xs:integer -->      </brightnessLevel>
        <contrastLevel>        <!-- opt, xs:integer -->      </contrastLevel>
        <saturationLevel>        <!-- opt, xs:integer -->      </saturationLevel>
        <hueLevel><!-- opt, xs:integer -->      </ hueLevel >
       <grayScale>
           <grayScaleMode> <!-- opt, xs:string, "indoor,outdoor"--><grayScaleMode>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
        <grayScale>
</Color>
```

3.28 /ISAPI/Image/channels/<ID>/scene

/ISAPI/Image/channels/<ID>/scene	General Resource v2.0
GET	
Description	It is used to get sene mode of a camera.
Query	None
Inbound Data	None
Success Return	**Scene**
PUT	
Description	It is used to set sene mode of a camera.
Query	None
Inbound Data	**Scene**
Success Return	**ResponseStatus**
Notes:	

Scene XML Block

```
<Scene version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode><!--req,xs:string,"indoor, outdoor, standard, dimLight "--></mode>
</Scene>
```

3.29 /ISAPI/Image/channels/<ID>/EPTZ

/ISAPI/Image/channels/<ID>/EPTZ	General Resource v2.0
GET	
Description	It is used to get electronic PTZ enabled status.
Query	None
Inbound Data	None
Success Return	**EPTZ**
PUT	
Description	It is used to get electronic PTZ enabled status.
Query	None
Inbound Data	**EPTZ**
Success Return	**ResponseStatus**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

EPTZ XML Block

```
<EPTZ version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled><!--req,xs:string,"true, false"--></enabled>
</EPTZ>
```

3.30 /ISAPI/Image/channels/<ID>/EIS

/ISAPI/Image/channels/<ID>/EIS	General Resource v2.0
GET	
Description	It is used to get the electronic-image-stabilizer configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**EIS**
PUT	
Description	It is used to set the the electronic-image-stabilizer configuration of a specified image channel.
Query	None
Inbound Data	**EIS**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/EIS //stands for EIS parameters under Auto Mode /ISAPI/Image/channels/<ID>/EIS/day // stands for EIS parameters under Day Mode /ISAPI/Image/channels/<ID>/EIS/night // stands for EIS parameters under Night Mode	

EIS XML Block

```
<EIS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled>   <!-- req, xs:boolean -->   </enabled>
    <EISLevel> <!-- opt, xs:integer --> </EISLevel>
</EIS>
```

3.31 /ISAPI/Image/channels/<ID>/HLC

/ISAPI/Image/channels/<ID>/HLC	General Resource v2.0
GET	
Description	It is used to get the high-light-compensation configuration of a specified image channel.

©2009 – 2014 by HIKVISION. All rights reserved.

Query	None
Inbound Data	None
Success Return	**HLC**
PUT	
Description	It is used to set the high-light-compensation configuration of a specified image channe.
Query	None
Inbound Data	**HLC**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/HLC //stands for HLC parameters under Auto Mode /ISAPI/Image/channels/<ID>/HLC/day //stands for HLC parameters under Day Mode /ISAPI/Image/channels/<ID>/HLC/night //stands for HLC parameters under Night Mode	

HLC XML Block

```
<HLC version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled>   <!-- req, xs:boolean -->   </enabled>
    <HLCLevel> <!-- opt, xs:integer--> </HLCLevel>
</HLC>
```

3.32 /ISAPI/Image/channels/<ID>/zoomLimit

/ISAPI/Image/channels/<ID>/ZoomLimit	**General Resource v2.0**
GET	
Description	It is used to get the zoomlimitconfiguration of a specified Image channel.
Query	None
Inbound Data	None
Success Return	**ZoomLimit**
PUT	
Description	It is used to set the zoomlimit value of the camera
Query	None
Inbound Data	**ZoomLimit**
Success Return	**ResponseStatus**
Notes:	

ZoomLimit XML Block

©2009 – 2014 by HIKVISION. All rights reserved.

```
<ZoomLimit version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ZoomLimitRatio> <!—opt xs:integer --> </ZoomLimitRatio>
</ZoomLimit >
```

3.33 /ISAPI/Image/channels/<ID>/corridor

/ISAPI/Image/channels/<ID>/corridor	General Resource v2.0
GET	
Description	It is used to get the corridor configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**corridor**
PUT	
Description	It is used to Set the corridor configuration of a specified image channel.
Query	None
Inbound Data	**corridor**
Success Return	**ResponseStatus**
Notes:	

corridor XML Block

```
<corridor version="2.0" xmlns="http://www.std-cgi.org/ver20/XMLSchema">
<enabled>   <!-- req, xs:boolean -->   </enabled></corridor >
```

3.34 /ISAPI/Image/channels/<ID>/dehaze

/ISAPI/Image/channels/<ID>/dehaze	General Resource v2.0
GET	
Description	It is used to decrease haze of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Dehaze**
PUT	
Description	It is used to decrease haze of a specified image channel.
Query	None
Inbound Data	**Dehaze**

©2009 – 2014 by HIKVISION. All rights reserved.

Success Return	ResponseStatus
Notes: /ISAPI/Image/channels/<ID>/dehaze //stands for dehaze parameters under Auto Mode /ISAPI/Image/channels/<ID>/dehaze/day // stands for dehaze parameters under Day Mode /ISAPI/Image/channels/<ID>/dehaze/night // stands for dehaze parameters under Night Mode	

Dehaze XML Block

```
<Dehaze version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <DehazeMode/>  <!--opt, xs:string, "open,close,auto -->
      <DehazeLevel> <!-- opt, xs:integer --> </DehazeLevel>
</Dehaze>
```

3.35 /ISAPI/Image/channels/<ID>/capturemode

/ISAPI/Image/channels/<ID>/capturemode	General Resource v2.0
GET	
Description	It is used to get the capture mode of a specified image channel.
Query	None
Inbound Data	None
Success Return	**CaptureMode**
PUT	
Description	It is used to set the capture mode of a specified image channe.
Query	None
Inbound Data	**CaptureMode**
Success Return	**ResponseStatus**
Notes: 1-640*480@30fps, 2-4CIF@30fps, 3-720P@25fps, 4-720P@30fps, 5-720P@60fps, 6-1280*960@15fps, 7-1280*960@25fps, 8-1280*960@30fps, 9-1280*1024@30fps, 10-1600*900@15fps, 11-1600*1200@15fps, 12-1080P@15fps, 13-1080P@25fps, 14-1080P@30fps, 15-1080P@50fps, 16-1080P@60fps, 17-2048*1536@15fps, 18-2048*1536@20fps, 19-2048*1536@24fps, 20-2048*1536@25fps, 21-2048*1536@30fps, 22-2560*2048@25fps, 23-2560*2048@30fps, 24-2560*1920@7.5fps, 25-3072*2048@30fps	

CaptureMode XML Block

©2009 – 2014 by HIKVISION. All rights reserved.

```
<CaptureMode version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode>   <!-- req, xs:string -->   </mode>
</CaptureMode>
```

3.36 /ISAPI/Image/channels/<ID>/irLight

/Image/channels/<ID>/IrLight	General Resource v2.0
GET	**Viewer**
Description	It is used to get the IR Light configuration for a specified Image channel.
Query	None
Inbound Data	None
Success Return	**IrLight**
PUT	**Operator**
Description	It is used to configure IR Light for a specified Image channel.
Query	None
Inbound Data	**IrLight**
Success Return	ResponseStaus **ResponseStatus**
Notes: if the value of brightness is 0, it stands for close	

IrLight XML Block

```
<IrLight version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <mode>                <!--req, xs:string,"auto,manual" --> </mode>
  <brightnessLevel>   <!--dep, xs:integer --> </brightnessLevel>
  <sensitivityLevel> <!--dep, xs:integer --><sensitivityLevel>
  <brightnessLimit>   <!--dep,opt, xs:integer, --> </brightnessLimit>
  <triggerMode> <!--dep,opt, xs:string, "camera, photosensitive" --> </triggerMode>
</IrLight >
```

3.37 /ISAPI/Image/channels/<ID>/imageCap

/ISAPI/Image/channels/ID/imageCap	General Resource v2.0
GET	
Description	It is used to get the list of image capabilities for the device.
Query	None
Inbound Data	**NULL**
Success Return	**ImageCap**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

ImageCap XML Block

```
<ImageCap version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <isSupportRegionalExposure> <!-- opt, xs:boolean-->  </isSupportRegionalExposure>
  <isSupportRegionalFocus>  <!—opt, xs:boolean-->  </isSupportRegionalFocus>
</ImageCap>
```

3.38 /ISAPI/Image/channels/<ID>/regionalExposure

/ISAPI/Image/channels/ID/regionalExposure	General Resource v2.0
PUT	
Description	It is used to configure the regional exposure parameters of specific channel.
Query	None
Inbound Data	**RegionalExposure**
Success Return	**ResponseStatus**
Notes:	

RegionalExposure XML Block

```
<RegionalExposure version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <StartPoint><!--0-1000-->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint><!--0-1000-->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </EndPoint>
</RegionalExposure>
```

3.39 /ISAPI/Image/channels/<ID>/regionalFocus

/ISAPI/Image/channels/ID/regionalFocus	General Resource v2.0
PUT	
Description	Focus on specific region of one channel.
Query	None
Inbound Data	**RegionalFocus**

©2009 – 2014 by HIKVISION. All rights reserved.

Success Return	**ResponseStatus**
Notes:	

RegionalFocus XML Block

```
<RegionalFocus version="2.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <StartPoint><!--0-1000-->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </StartPoint>
  <EndPoint><!--0-1000-->
    <positionX> <!-- req, xs:integer --> </positionX>
    <positionY> <!-- req, xs:integer --> </positionY>
  </EndPoint>
</RegionalFocus>
```

3.40 /ISAPI/Image/channels/<ID>/supplementLight

/ISAPI/Image/channels/<ID>/supplementLight	**General Resource v2.0**
GET	
Description	It is used to get the SupplementLight's configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**SupplementLight**
PUT	
Description	It is used to configure the SupplementLight's configuration of a specified image channel.
Query	None
Inbound Data	**SupplementLight**
Success Return	**ResponseStatus**
Notes:	

SupplementLight XML Block

```
<SupplementLight version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode><!--opt,xs:string," schedule,off,on,auto"--></mode>
  <Schedule>
    <TimeRange> <!-- req -->
      <beginTime> <!-- req, xs:time, ISO8601 time --> </beginTime>
      <endTime> <!-- req, xs:time, ISO8601 time --> </endTime>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
        </TimeRange>
    </Schedule>
    <brightnessLimit><!--dep,xs:integer,"0~100" --></brightnessLimit>
</SupplementLight>
```

3.41 /ISAPI/Image/channels/<ID>/capabilities

/ISAPI/Image/channels/<ID>	General Resource v2.0
GET	
Description	It is used to get a specific channel Image configuration.
Query	None
Inbound Data	None
Success Return	**ImageChannel**
PUT	
Description	It is used to update Image configuration for a specific channel.
Query	None
Inbound Data	**ImageChannel**
Success Return	**ResponseStatus**

Notes:

/ISAPI/Image/channels/<ID>: front-end image parameters under Auto Mode
/ISAPI/Image/channels/<ID>/day front-end image parameters under Day Mode
/ISAPI/Image/channels/<ID>/night front-end image parameters under Night Mode
exposureLevel (exposure level): valid when exposure mode is Auto mode, Iris First mode, and Shutter First mode. Level: 1-5, default: 4.
isSupportlaserSpotManual: whether support to configure laser spot.
isSupportLaserSpotAdjustment: whether support to adjust laser spot size.

ImageChannel XML Block

```
<ImageChannel version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <id><!-- req, xs:integer --></id>
  <enabled>   <!-- req, xs:boolean -->   </enabled>
  <videoInputID>          <!-- req, xs:integer -->   </videoInputID>
  <Focusconfiguration/> <!-- opt -->
  <LensInitialization/> <!-- opt -->
  <ImageFlip/> <!-- opt -->
  <ImageFreeze/> <!-- opt -->
  <proportionalpan/> <!-- opt -->
  <WDR/> <!-- opt -->
  <BLC/> <!-- opt -->
  <NoiseReduce/> <!-- opt -->
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
<ImageEnhancement/> <!-- opt -->
<DSS/> <!-- opt -->
<WhiteBlance/> <!-- opt -->
<Exposure> <!-- opt -->
    <ExposureType/>   <!--req, xs:string, “auto, IrisFirst, ShutterFirst, gainFirst, manual, pIris, T5280-PQ1,T5289-PQ1,T1140-PQ1,T2712-PQ1” -->
      <autoIrisLevel><!—dep,xs:integer> <autoIrisLevel>
      <OverexposeSuppress> <!--opt-->
        <enabled> <!--req, xs:boolean --> </enabled>
        <Type>   <!--dep, depends on <enabled>, xs:string, “AUTO, MANUAL” --> </Type>
          <DistanceLevel>  <!--dep, depends on  <Type>, xs: integer --> </DistanceLevel>
        <shortIRDistanceLevel>
            <!--dep, depends on  <Type>, xs: integer -->
        </shortIRDistanceLevel>
        <longIRDistanceLevel>
            <!--dep, depends on  <Type>, xs: integer -->
        </longIRDistanceLevel>
    </OverexposeSuppress>
    <pIris>   <!—opt-->
        <pIrisType/>  <!—dep, depends on <ExposureType>, xs:string, “AUTO, MANUAL” -->
        <IrisLevel> <!--dep, depends on <pIrisType>, xs:integer --> </IrisLevel>
    <pIris>
    <exposureLevel><!--opt,depends on <ExposureType>,xs:integer !--><exposureLevel>
</Exposure><Sharpness/> <!-- opt -->
<gammaCorrection/> <!-- opt -->
<powerLineFrequency/> <!-- opt -->
<Color/> <!-- opt -->
<IrcutFilter/> <!-- opt -->
<Scene/> <!-- opt -->
< EPTZ/ > <!-- opt -->
<EIS/> <!-- opt -->
<HLC/> <!-- opt -->
<ZoomLimit/> <!-- opt -->
<corridor/> <!-- opt -->
<Dehaze/> <!-- opt -->
<ImageMode/> <!--opt, xs:string, “standard, indoor, outdoor, dimLight” -->
<enableImageLossDetection>  <!-- opt, Boolean -->  </enableImageLossDetection>
<CaptureMode/> <!-- opt -->
<IrLight/> <!-- opt -->
<LensDistortionCorrection/> <!-- opt -->
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
  <SupplementLight/>
  <OpticalDehaze/> <!-- opt -->
  <ManualRanging/><!-- opt -->
  <OIS/><!-- opt -->
  <isSupportlaserSpotManual><!-- opt, boolean --></isSupportlaserSpotManual>
  <isSupportLaserSpotAdjustment><!-- opt, boolean --></isSupportLaserSpotAdjustment>
</ImageChannel>
```

3.42 /ISAPI/Image/channels/<ID>/shutter

/ISAPI/Image/channels/<ID>/shutter	General Resource v2.0
GET	
Description	It is used to get the Shutter value of a specified image channel.
Query	None
Inbound Data	None
Success Return	**Shutter**
PUT	
Description	It is used to configure the Shutter value of a specified image channel.
Query	None
Inbound Data	**Shutter**
Success Return	**ResponseStatus**
Notes: PUT method is enabled only when <ExposureType> is ShutterFirst	

Shutter XML Block

```
<Shutter version="1.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ShutterLevel> <!-- dep,depends on <ExposureType>, xs:string, "1/1, 1/2, 1/3, 1/6, 1/12, 1/25, 1/50, 1/75, 1/100, 1/120, 1/125, 1/150, 1/175, 1/215, 1/225, 1/300, 1/400, 1/425, 1/600, 1/1000, 1/1250, 1/1750, 1/2500, 1/3500, 1/6000, 1/10000," --> <ShutterLevel></Shutter>
```

3.43 /ISAPI/Image/channels/<ID>/exposure

/ISAPI/Image/channels/<ID>/exposure	General Resource v2.0
GET	
Description	It is used to get the exposure mode of a specified image channel.
Query	None
Inbound Data	None

©2009 – 2014 by HIKVISION. All rights reserved.

Success Return	**Exposure**
PUT	
Description	It is used to configure the exposure mode of a specified image channel.
Query	None
Inbound Data	**Exposure**
Success Return	**ResponseStatus**
Notes: /ISAPI/Image/channels/<ID>/exposure //stands for exposure parameters under Auto Mode /ISAPI/Image/channels/<ID>/exposure/day //stands for exposure parameters under Day Mode /ISAPI/Image/channels/<ID>/exposure/night //stands for exposure parameters under Night Mode exposureLevel (exposure level): valid when exposure mode is auto mode, iris first mode, and shutter first mode. Level: 1-5, default: 4.	

Exposure XML Block

```
<Exposure version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <ExposureType/>   <!--req, xs:string, "auto, IrisFirst, ShutterFirst, gainFirst, manual, pIris, T5280-PQ1,T5289-PQ1,T1140-PQ1,T2712-PQ1" -->
  <autoIrisLevel><!—dep,xs:integer> <autoIrisLevel>
  <OverexposeSuppress> <!--opt-->
    <enabled> <!--req, xs:boolean --> </enabled>
     <Type>   <!--dep, depends on <enabled>, xs:string, "AUTO, MANUAL" --> </Type>
    <DistanceLevel> <!--dep, depends on   <Type>, xs: integer --> </DistanceLevel>
    <shortIRDistanceLevel>
      <!--dep, depends on   <Type>, xs: integer -->
    </shortIRDistanceLevel>
    <longIRDistanceLevel>
      <!--dep, depends on   <Type>, xs: integer -->
    </longIRDistanceLevel>
  </OverexposeSuppress>
  <pIris>   <!—opt-->
     <pIrisType/> <!—dep, depends on <ExposureType>, xs:string, "AUTO, MANUAL" -->
     <IrisLevel> <!--dep, depends on <pIrisType>, xs:integer --> </IrisLevel>
  <pIris>
  <exposureLevel><!—opt,xs:integer !--><exposureLevel>
</Exposure>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.44 /ISAPI/Image/channels/<ID>/lensDistortionCorrection

/ISAPI/Image/channels/<ID>/lensDistortionCorrection	General Resource v2.0
GET	
Description	It is used to get the LensDistortionCorrection configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	LensDistortionCorrection
PUT	
Description	It is used to get the LensDistortionCorrection configuration of a specified image channel.
Query	None
Inbound Data	LensDistortionCorrection
Success Return	**ResponseStatus**
Notes:	

corridor XML Block

```
<LensDistortionCorrection version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled>   <!-- req, xs:boolean -->   </enabled>
</LensDistortionCorrection>
```

3.45 /ISAPI/Image/channels/<ID>/displayParamSwitch

/ISAPI/Image/channels/<ID>/displayParamSwitch	General Resource v2.0
GET	
Description	It is used to get the DisplayParamSwitch configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	DisplayParamSwitch
PUT	
Description	It is used to get the DisplayParamSwitch configuration of a specified image channel.
Query	None

©2009 – 2014 by HIKVISION. All rights reserved.

Inbound Data	DisplayParamSwitch
Success Return	**ResponseStatus**
Notes:	

DisplayParamSwitch **XML Block**

```
<DisplayParamSwitch version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode><!--req, xs:string, "disable,linkPreset,timingSwitch"--></mode>
    <LinkPresetList> <!-- dep, depends on <linkPreset> -->
        <LinkPreset>
            <id> <!-- req, xs:string; id --> </id>
            <presetID> <!-- req, xs:string;id --> </presetID>
            <linkEnabled> <!-- req, xs:boolean --> </linkEnabled>
            <PeriodList size="4"> <!-- req -->
                <Period>
                    <id> <!-- req, xs:string; id --> </id>
                    <enabled> <!-- req, xs:boolean --> </enabled>
                    <TimeRange>          <!-- req -->
                        <beginTime>      <!-- req, xs:time, ISO8601 time -->    </beginTime>
                        <endTime>      <!-- req, xs:time, ISO8601 time -->    </endTime>
                    </TimeRange>

<linkScene><!--req,xs:string,"indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4"--></linkScene>
                </Period>
            </PeriodList>
        </LinkPreset>
    </LinkPresetList>
    <TimingSwitch> <!-- dep, depends on <timingSwitch> -->
        <PeriodList size="4"> <!-- req -->
            <Period>
                <id> <!-- req, xs:string; id --> </id>
                <enabled> <!-- req, xs:boolean --> </enabled>
                <TimeRange>          <!-- req -->
                    <beginTime>      <!-- req, xs:time, ISO8601 time -->    </beginTime>
                    <endTime>      <!-- req, xs:time, ISO8601 time -->    </endTime>
                </TimeRange>

    <linkScene><!--req,xs:string,"indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4"--></linkScene>
            </Period>
        </PeriodList>
    </TimingSwitch>
</DisplayParamSwitch>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.46 /ISAPI/Image/channels/<ID>/displayParamSwitch/capabilities

/ISAPI/Image/channels/<ID>/displayParamSwitch/capabilities	General Resource v2.0
GET	
Description	It is used to get Display Parameter Switch capability.
Query	None
Inbound Data	None
Success Return	<DisplayParamSwitch>
Notes:	

DisplayParamSwitch XML Block

```
<DisplayParamSwitch version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode opt="disable,linkPreset,timingSwitch"><!--req, xs:string, --></mode>
    <LinkPresetList size="10"> <!-- dep, depends on <linkPresetEnabled> -->
        <LinkPreset>
            <id> <!-- req, xs:string; id --> </id>
            <presetID min="1" max="10"> <!-- req, xs:string;id --> </presetID>
            <linkEnabled> <!-- req, xs:boolean --> </linkEnabled>
            <PeriodList size="4"> <!-- req -->
                <Period>
                    <id> <!-- req, xs:string; id --> </id>
                    <enabled> <!-- req, xs:boolean --> </enabled>
                    <TimeRange>         <!-- req -->
                        <beginTime>      <!-- req, xs:time, ISO8601 time -->
</beginTime>
                        <endTime>      <!-- req, xs:time, ISO8601 time -->   </endTime>
                    </TimeRange>
                    <linkScene
opt="indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4"><!--req,xs:
string,--></linkScene>
                </Period>
            </PeriodList>
        </LinkPreset>
    </LinkPresetList>
    <TimingSwitch> <!-- dep, depends on <timingSwitchEnabled> -->
        <PeriodList size="4"> <!-- req -->
            <Period>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
                    <id> <!-- req, xs:string; id --> </id>
                    <enabled> <!-- req, xs:boolean --> </enabled>
                    <TimeRange>         <!-- req -->
                        <beginTime>      <!-- req, xs:time, ISO8601 time -->
</beginTime>
                        <endTime>      <!-- req, xs:time, ISO8601 time -->   </endTime>
                    </TimeRange>
                    <linkScene
opt="indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4"><!--req,xs:
string,--></linkScene>
                </Period>
            </PeriodList>
        </TimingSwitch>
</DisplayParamSwitch>
```

3.47 /ISAPI/Image/channels/<ID>/mountingScenario

/ISAPI/Image/channels/<ID>/mountingScenario	General Resource v2.0
GET	
Description	It is used to get mounting scenario mode of a camera.
Query	None
Inbound Data	None
Success Return	**MountingScenario**
PUT	
Description	It is used to set mounting scenario mode of a camera.
Query	None
Inbound Data	**MountingScenario**
Success Return	**ResponseStatus**
Notes: The image parameters should be obtained again when mounting scenario mode changes. indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4	

MountingScenario XML Block

```
<MountingScenario version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode><!--req,xs:string,"indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mo
de3,mode4"--></mode>
</MountingScenario>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.48 /ISAPI/Image/channels/<ID>/mountingScenario/capabilities

/ISAPI/Image/channels/<ID>/mountingScenario/capabilities	General Resource v2.0
GET	
Description	It is used to get Mounting Scenario capability.
Query	None
Inbound Data	None
Success Return	<MountingScenario>
Notes: indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4	

MountingScenario XML Block

```
<MountingScenario version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <mode
opt="indoor,outdoor,day,night,morning,nightfall,mode1,mode2,mode3,mode4"><!--req,xs:
string,--></mode>
</MountingScenario>
```

3.49 /ISAPI/Image/channels/<ID>/laserLight

According to product requirement, configure working mode of laser light(manual, auto), sensitivity, brightness, and laser angle. Under auto mode, can configure sensitivity and brightness, while under manual mode, can configure laser brightness and laser angle.
/ISAPI/Image/channels/<ID>/laserLight

/ISAPI/Image/channels/<ID>/laserLight	General Resource v2.0
GET	
Description	It is used to get the laser Light configuration for a specified Image channel.
Query	None
Inbound Data	None
Success Return	**laserLight**
PUT	
Description	It is used to configure laser Light for a specified Image channel.
Query	None
Inbound Data	**laserLight**
Success Return	hik:ResponseStaus **ResponseStatus**

©2009 – 2014 by HIKVISION. All rights reserved.

Notes:

<illumination> laser light intensity

<enabled> manually close laser light when enabled, valid under Manual mode.

laserSpotLevel: Laser spot level: 1-3, default: 1.

Enabled: whether enable to display laser warning or not, enabled by default. If supplement light is enabled at the same time, laser warning will display on the image's upper-left corner in form of OSD.

TopLeftPoint: coordinate of upper-left point of laser warning. Laser warning is displayed on the position calculated by this coordinate and length of laser warning.

warningWord: laser warning.

laserLight XML Block

```
<LaserLight version="1.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <mode>      <!--req, xs:string,"auto,manual" -->        </mode>
  <sensitivityLevel> <!--dep, xs:integer 0-100 depends on <mode>, valid when <mode> is manual --> <sensitivityLevel>
  <brightnessLevel>   <!--dep, xs:integer 0-255 depends on <mode>, valid when <mode> is manual --> </brightnessLevel>
  <laserangle>  <!--dep, xs:integer  1-36 depends on <mode>, valid when <mode> is manual --> </laserangle>
  <triggerMode> <!--dep,opt, xs:string, "camera, photosensitive" depends on <mode>, valid when <mode> is manual --> </triggerMode>
  <brightnessLimit>   <!--dep, xs:integer 0-255 depends on <mode>, valid when <mode> is auto --> </brightnessLimit>
  <enabled><!--dep, xs:boolen, "true,false" depends on <mode>, valid when <mode> is manual --></enabled>
  <illumination>  <!--dep, xs:integer 0-100 depends on <mode>, valid when <mode> is manual --> </illumination>
  <lightAngle> <!--dep, xs:integer 0-100 light angle depends on <mode>, valid when <mode> is manual --> <lightAngle>
  <LaserSpotManual><!--opt-->
    <normalizedScreenSize><!-- req, ro -->
        <normalizedScreenWidth> <!-- req, ro,xs:integer --> </normalizedScreenWidth>
        <normalizedScreenHeight> <!-- req, ro,xs:integer --> </normalizedScreenHeight>
    </normalizedScreenSize>
    <laserSpotLevel><!--req,xs:integer --></laserSpotLevel>
    <LaserWarning><!--opt-->
        <enabled><!--opt,xs:boolean--></enabled>
        <warningWord><!--opt,xs:string--></warningWord>
        <TopLeftPoint><!--opt-->
            <positionX><!-- req,xs:integer;coordinate--></positionX>
            <positionY><!-- req,xs:integer;coordinate--></positionY>
        </TopLeftPoint>
    </LaserWarning>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
  </LaserSpotManual>

</LaserLight>
```

3.50 /ISAPI/Image/channels/<ID>/laserLight/capabilities

/ISAPI/Image/channels/<ID>/laserLight/capabilities	General Resource v2.0
GET	
Description	It is used to get the **laserLight capabilities**
Query	None
Inbound Data	None
Success Return	**laserLight**

Notes:

<illumination> laser light intensity

<enabled> manually close laser light when enabled, valid under Manual mode.

laserSpotLevel: Laser spot level: 1~3, default: 1.

Enabled: whether enable to display laser warning or not, enabled by default. If supplement light is enabled at the same time, laser warning will display on the image's upper-left corner in form of OSD.

TopLeftPoint: coordinate of upper-left point of laser warning. Laser warning is displayed on the position calculated by this coordinate and length of laser warning.

warningWord: laser warning.

laserLight XML Block

```
<LaserLight version="1.0" xmlns="http://www.isapi.com/ver20/XMLSchema">
  <mode>      <!--req, xs:string,"auto,manual" -->        </mode>
  <sensitivityLevel> <!--dep, xs:integer 0-100 depends on <mode>, valid when <mode> is manual --> <sensitivityLevel>
  <brightnessLevel>   <!--dep, xs:integer 0-255 depends on <mode>, valid when <mode> is manual --> </brightnessLevel>
  <laserangle>   <!--dep, xs:integer  1-36 depends on <mode>, valid when <mode> is manual --> </laserangle>
  <triggerMode> <!--dep,opt, xs:string, "camera, photosensitive" depends on <mode>, valid when <mode> is manual --> </triggerMode>
  <brightnessLimit>   <!--dep, xs:integer 0-255 valid when <mode> is auto --> --> </brightnessLimit>
  <enabled><!--dep, xs:boolen, "true,false" depends on <mode>, valid when <mode> is manual --></enabled>
  <illumination>   <!--dep, xs:integer 0-100 depends on <mode>, valid when <mode> is manual --> </illumination>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
  <lightAngle> <!--dep, xs:integer 0-100 light angle depends on <mode>, valid when <mode> is manual --> <lightAngle>
  <LaserSpotManual><!--opt,-->
    <normalizedScreenSize><!-- req, ro -->
        <normalizedScreenWidth> <!-- req, ro,xs:integer --> </normalizedScreenWidth>
        <normalizedScreenHeight> <!-- req, ro,xs:integer --> </normalizedScreenHeight>
    </normalizedScreenSize>
    <laserSpotLevel min="1" max="3" default="1"><!--req,xs:integer --></laserSpotLevel>
    <LaserWarning><!--opt-->
        <enabled opt="false,true"><!--opt,xs:boolean--></enabled>
        <warningWord><!--opt,xs:string--></warningWord>
        <TopLeftPoint><!--opt-->
            <positionX><!-- req,xs:integer;coordinate--></positionX>
            <positionY><!-- req,xs:integer;coordinate--></positionY>
        </TopLeftPoint>
    </LaserWarning>
</LaserSpotManual>
 </LaserLight>
```

3.51 /ISAPI/Image/channels/<ID>/opticalDehaze

/ISAPI/Image/channels/<ID>/opticaldehaze	General Resource v2.0
GET	
Description	It is used to get the Optical Dehaze configuration for a specified Image channel.
Query	None
Inbound Data	None
Success Return	OpticalD**ehaze**
PUT	
Description	It is used to get the Optical Dehaze configuration for a specified Image channel.
Query	None
Inbound Data	Optical**Dehaze**
Success Return	**ResponseStatus**
Notes:	

Dehaze XML Block

```
<OpticalDehaze version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
      <enabled><!--opt,xs:boolen," enable optical dehaze "--></enabled>
</OpticalDehaze>
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.52 /ISAPI/Image/channels/<ID>/opticalDehaze/capabilities

/ISAPI/Image/channels/<ID>/opticaldehaze/capabilities	General Resource v2.0
GET	
Description	It is used to get Optical Dehaze capability.
Query	None
Inbound Data	None
Success Return	**OpticalDehaze**

Dehaze XML Block

```
<OpticalDehaze version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled><!--opt,xs:boolen," enable optical dehaze "--></enabled>
</OpticalDehaze>
```

3.53 /ISAPI/Image/channels/<ID>/manualRanging

/ISAPI/Image/channels/<ID>/manualRanging	General Resource v2.0
PUT	
Description	It is used to get the Optical Dehaze configuration for a specified Image channel.
Query	None
Inbound Data	**ManualRanging**
Success Return	**ResponseStatus**
Notes:	

ManualRanging XML Block

```
<ManualRanging version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled><!--opt,xs:boolen," enable manual ranging "--></enabled>
</ManualRanging >
```

©2009 – 2014 by HIKVISION. All rights reserved.

3.54 /ISAPI/Image/channels/<ID>/manualRanging/capabilities

/ISAPI/Image/channels/<ID>/manualRanging/capabilities	General Resource v2.0
GET	
Description	It is used to get Optical Dehaze capability.
Query	None
Inbound Data	None
Success Return	**ManualRanging**

ManualRanging XML Block

```
<ManualRanging version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <enabled><!--opt,xs:boolen," enable manual ranging "--></enabled>
</ManualRanging >
```

3.55 /ISAPI/Image/channels/<ID>/OIS/capabilities

/ISAPI/Image/channels/<ID>/OIS/capabilities	General Resource v2.0
GET	
Description	It is used to get the Optical image stabilization capabilities of a specified image channel
Query	None
Inbound Data	None
Success Return	**OIS**
Notes: OISLevel (Optical Image Stabilization) level: high, middle, low. Default: middle(valid when OIS mode is under expert mode) OISSensitivity (Optical Image Stabilization sensitivity): level: high, middle, low. Default: middle(valid when OIS mode is under expert mode) Mode: close, ordinary, expert. Default: ordinary.	

OIS XML Block

```
<OIS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
  <mode opt="close,ordinary,experts" default="ordinary"><!-- req, xs:string !--> </mode>
  <OISLevel opt="high,middle,low" default="middle"><!-- opt, xs:string !--></OISLevel>
  <OISSensitivity opt="high,middle,low" default="middle"><!-- opt, xs: string!-->
</OISSensitivity>
```

©2009 – 2014 by HIKVISION. All rights reserved.

```
</OIS>
```

3.56 /ISAPI/Image/channels/<ID>/OIS

/ISAPI/Image/channels/<ID>/OIS	General Resource v2.0
GET	
Description	It is used to get the Optical image stabilization configuration of a specified image channel.
Query	None
Inbound Data	None
Success Return	**OIS**
PUT	
Description	It is used to set the the Optical image stabilization configuration of a specified image channel.
Query	None
Inbound Data	**OIS**
Success Return	**ResponseStatus**
Notes: OISLevel (Optical Image Stabilization): level: high, middle, low. Default: middle(valid when OIS mode is under expert mode) OISSensitivity (Optical Image Stabilization sensitivity): level: high, middle, low. Default: middle(valid when OIS mode is under expert mode) Mode: close, ordinary, expert.	

OIS XML Block

```
<OIS version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
   <mode><!-- req, xs:string !--> </mode>
   <OISLevel><!-- opt, xs:string !--></OISLevel>
   <OISSensitivity><!-- opt, xs: string!--> </OISSensitivity>
</OIS>
```

3.57 /ISAPI/Image/channels/<ID>/DPC/correction

/ISAPI/Image/channels/<ID>/DPC/correction	General Resource v2.0
PUT	**Operator**
Description	DPC parameters are configured according to the channel number
Query	None
Inbound Data	DPC
Success Return	**ResponseStatus**
Notes:	

©2009 – 2014 by HIKVISION. All rights reserved.

allCorrection: all dead pixels correction

BareDataOverlay XML Block

```
<DPC version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
        <mode
opt="correction,moveup,movedown,moveleft,moveright,cancelCorrect,allCorrection,save"
><!-- req, xs:string--></mode>
</DPC>
```

3.58 /ISAPI/Image/channels/<ID>/DPC/correction/capabilities

/ISAPI/Image/channels/<ID>/DPC/correction/capabilities	General Resource v2.0
GET	
Description	DPC capabilities are configured according to the channel number
Query	None
Inbound Data	None
Success Return	DPC
Notes: allCorrection: all dead pixels correction	

BareDataOverlay XML Block

```
<DPC version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
        <mode
opt="correction,moveup,movedown,moveleft,moveright,cancelCorrect,allCorrection,save"
><!-- req, xs:string--></mode>
</DPC>
```

3.59 /ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment/capabilities

/ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment/capabilities	General Resource v2.0

©2009 – 2014 by HIKVISION. All rights reserved.

GET	
Description	Get laser Spot Adjustment Configuration parameters by channel
Query	None
Inbound Data	None
Success Return	**laserSpotAdjustment**
Notes: laserSpotSize: laser spot size+(increase), laser spot size-(decrease). Two buttons are used to manually adjust laser spot size under current magnification (laser spot cannot be too small to be hurtful). Laser spot size will not be saved in device after manual adjustment. Only after adjusting magnification, laser level will automatically restore to current level according to magnification.	

laserSpotAdjustment XML Block

```
<laserSpotAdjustment    version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <laserSpotSize opt="increase,decrease"><!--req,xs:string--></laserSpotSize>
</laserSpotAdjustment>
```

3.60 /ISAPI/Image/channels/<ID>/laserLight/laserSpot Adjustment

/ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment	**General Resource**	**v2.0**
PUT		
Description	Set laser Spot Adjustment parameters by channel	
Query	None	
Inbound Data	**laserSpotAdjustment**	
Success Return	**ResponseStatus**	
Notes: laserSpotSize: laser spot size+(increase), laser spot size-(decrease). Two buttons are used to manually adjust laser spot size under current magnification (laser spot cannot be too small to be hurtful). Laser spot size will not be saved in device after manual adjustment. Only after adjusting magnification, laser level will automatically restore to current level according to magnification.		

laserSpotAdjustment XML Block

```
<laserSpotAdjustment    version="2.0" xmlns="http://www.isapi.org/ver20/XMLSchema">
    <laserSpotSize><!--req,xs:string,opt="increase,decrease" --></laserSpotSize>
</laserSpotAdjustment>
```

©2009 – 2014 by HIKVISION. All rights reserved.

4.Revision History

Revision History	Description	Reviser	Date
Version 2.0 Revision 1	Initial version	Minglei Yu Linming He Guangmu Ma	2013-12
Version 2.5 Revision 1	[mod]IPD5.3.8 add DSSLevel(*1.25, *1.5) /ISAPI/Image/channels/<ID>/DSS	Xiaomin wang	2015-05-09
Version 2.5 Revision 2	[Add] 3.46 **/ISAPI/Image/channels/<ID>/capabilities** **3.54** **/ISAPI/Image/channels/<ID>/laserLight** 3.55 **/ISAPI/Image/channels/<ID>/laserLight/capabilities** 3.56 **/ISAPI/Image/channels/<ID>/opticaldehaze** 3.57 **/ISAPI/Image/channels/<ID>/opticaldehaze/capabilities** 3.58 **/ISAPI/Image/channels/<ID>/manualRanging** 3.59 **/ISAPI/Image/channels/<ID>/manualRanging/capabilities**	ZhenBangShao	2015-06-12
	[mod] 3.46 /ISAPI/Image/channels/<ID>/capabilities add <exposureLevel> and < OIS >	zhangkun	2016-07-11

©2009 – 2014 by HIKVISION. All rights reserved.

	nodes. 3.48 /ISAPI/Image/channels/<ID>/exposure add <exposureLevel> node. [add] 3.60 /ISAPI/Image/channels/<ID>/OIS/capabilities optical image stabilization configuration capability. 3.61 /ISAPI/Image/channels/<ID>/OIS optical image stabilization configuration.		
	3.62 /ISAPI/Image/channels/<ID>/DPC/correction 3.63 /ISAPI/Image/channels/<ID>/DPC/correction/capabilities	ZhenbangShao	2016-07-28
	[mod] 3.46 /ISAPI/Image/channels/<ID>/capabilities add <isSupportlaserSpotManual> and <isSupportLaserSpotAdjustment> nodes. 3.55 /ISAPI/Image/channels/<ID>/laserLight/capabilities add <LaserSpotManual> node. 3.54 /ISAPI/Image/channels/<ID>/laserLight add <LaserSpotManual> node [add] 3.64 /ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment/capabilities add laser spot adjustment configuration capability.	Zhangkun	2016-09-28

©2009 – 2014 by HIKVISION. All rights reserved.

	3.65 /ISAPI/Image/channels/<ID>/laserLight/laserSpotAdjustment add laser spot adjustment configuration.		

http://www.hikvision.com/

© COPYRIGHT, Hikvision Digital Technology Co., Ltd

©2009 – 2014 by HIKVISION. All rights reserved.