

Guide: Image format

 Request to find the image-instance id from the filename:

```
SELECT ii.project_id, ii.id, ai.filename
FROM abstract_image ai, image_instance ii
WHERE ii.base_image_id = ai.id
AND ai.filename like '%FILENAME%';
```

(Replace FILENAME)

=> URL = <http://beta.cytomine.be/#tabs-image-PROJECT-IMAGEINSTANCE->

Standard	Sample	Sample (cytomine-dev ; 10.19.5.34)	ID image instance	URL
TIFF pyramidal	✓	/var/images/TIFF/_NEO4_HPg_INH_8.7001.tif.vips.tif /var/images/TIFF/OC_CD31_04840029C0001S_converted.tif /var/images/TIFF/out_final_52_36__overlap_0_0_w1_vips.tif	1676	http://beta.cytomine.be/#tabs-image-57-1676-
TIFF planar	TIFF			
PNG	TIFF			
PGM	TIFF			
JPEG	TIFF			
JPEG2000	✓	/var/images/JPEG2000/PGP_POUMON_PBS_3_21_-_2012-08-08_11.07.24.jp2	7889452	http://beta.cytomine.be/#tabs-image-7873585-7889452-
BMP	TIFF			

Advanced	Sample	Sample (cytomine-dev ; 10.19.5.34)	ID image instance	URL	Remarks
SVS Aperio	✓	/var/images/SVS /BM_GRAZ_HE_0016.svs	100117637	http://beta.cytomine.be/#tabs-image-93519082-100117637-	encoding compression JP2K YCBCR
	✓	/var/images/SVS /BM_GRAZ_HE_0035.svs	140857517	http://beta.cytomine.be/#tabs-image-140835231-140857517-	encoding JPEG
NDPI Hamamatsu	✓	/var/images/NDPI/BABL_2_-_2014-12-04_10.11.50.ndpi	150090604	http://beta.cytomine.be/#tabs-image-150079801-150090604-	
VMS Hamamatsu	✓	/var/images/VMS /11H10260_LBA_Papa_-_2012-01-26_14.25.48_clip.vms	377590	http://beta.cytomine.be/#tabs-image-65-377590-	
SCN Leica	✓	/var/images/SCN/40X_ImageCollection_0000000157_2013-03-27_16_12_31.scn	?		
MRXS Mirax	✓	/var/images/SCN/CD56_noir_CD34_rouge.mrxs	142212708	http://beta.cytomine.be/#tabs-image-101903411-142212708-	
TIFF Philips					
SVS Sakura	✓	/var/images/SVS/10B01380_C4_DIV_-_2013-01-17_10.37.01.svs	14696089	http://beta.cytomine.be/#tabs-image-14691185-14696089-	
TIFF ventana	✓	/1411647998215/7fc4924b-455b-4190-8fb5-6fad2644fce7.vtif /var/images/VTIFF/910cf3c7-5f54-457c-96f9-f9f8e19380eb.vtif	137879263706 (aurora)	http://beta.cytomine.be/#tabs-image-92279388-137879263-	
BIFF ventana					

CZI Zeiss					No direct support but indirect through TIFF conversion with CZI Converter (parameters: BigTIFF, no pyramid, no attachment images): http://hcbi.fas.harvard.edu/resources_software
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Image format architecture

All formats in Cytomine are in one of these categories :

- Natively supported;
- Supported after a light conversion;
- Supported after a heavy conversion (heavy means the conversion takes a long time).

Natively supported :

All the natively supported images extend the SupportedImageFormat class. Currently, we can natively support the following formats :

- Pyramidal TIFF
- JPEG 2000
- All the formats supported by OpenSlide. These formats are split into the SingleFile and MultipleFiles.

Supported after a light conversion :

One light convertor is VIPS to "pyramidalize" the non-pyramidal images. All formats of this category must implement the IConvertibleImageFormat.

Example :

- JPEG, PNG, BMP are common format that need to be "pyramidalized" with vips.
- PlanarTIFF, HuronTIFF , etc. are tiff not recognized by iipsrv that need to be converted by vips. It takes few second. ==> Light conversion.

Supported after a heavy conversion :

One heavy convertor is BioFormat. All format convertible (to TIFF) by BioFormat extends BioFormat class and implement the IHeavyConvertibleImageFormat.

