



UNIVERSITÄT
LEIPZIG



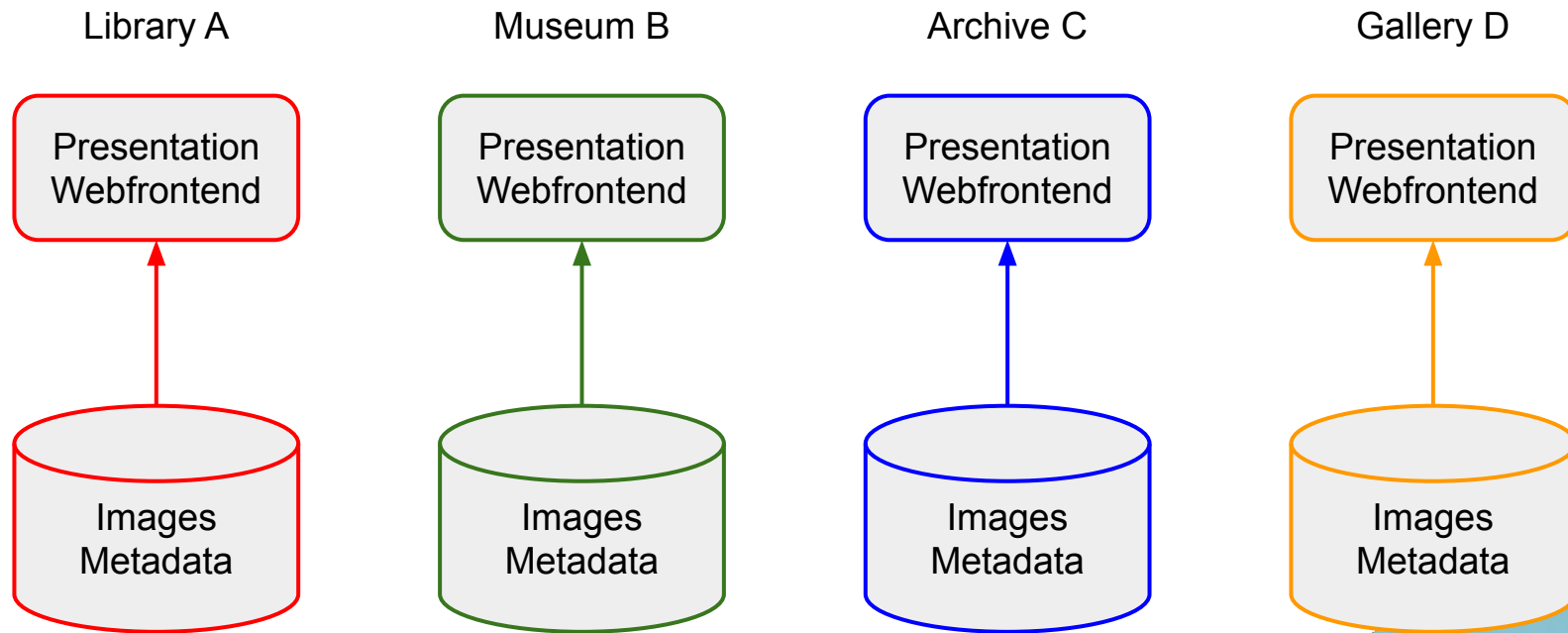
Workshop: Hands-on IIF – how to install, configure and prepare simple IIF services

SWIB19 (<http://swib.org/swib19/>), 2019-11-25, Hamburg

Leander Seige

UNIVERSITÄTS
BIBLIOTHEK *ubl* LEIPZIG

Isolated Image Presentations



International Image Interoperability Framework

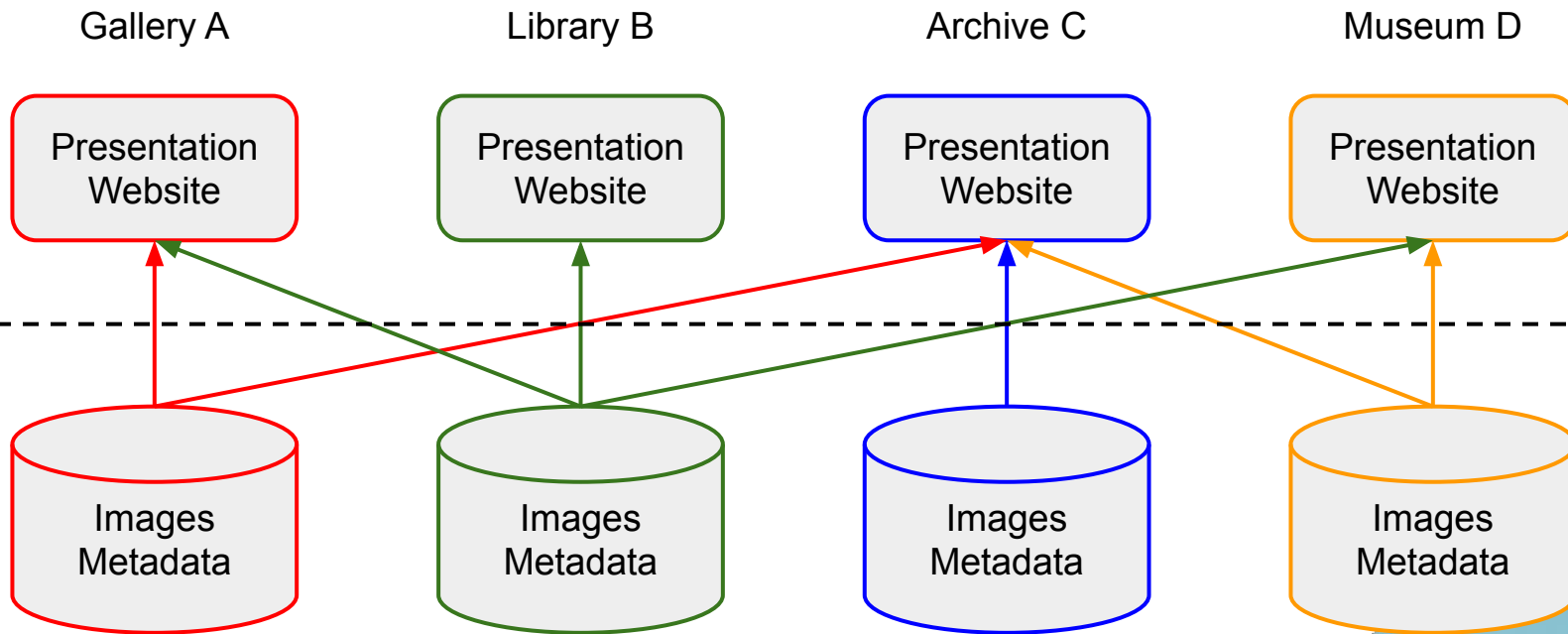


<http://iiif.io>

The idea of IIIF: interoperable APIs for images



APIs



IIIF Community

Consortium formed 2015 in Oxford

- Stanford University Libraries
- The British Library
- Bodleian Libraries at Oxford
- Bayerische Staatsbibliothek
- Bibliothèque nationale de France
- Vatican Libraries
- 40+ members

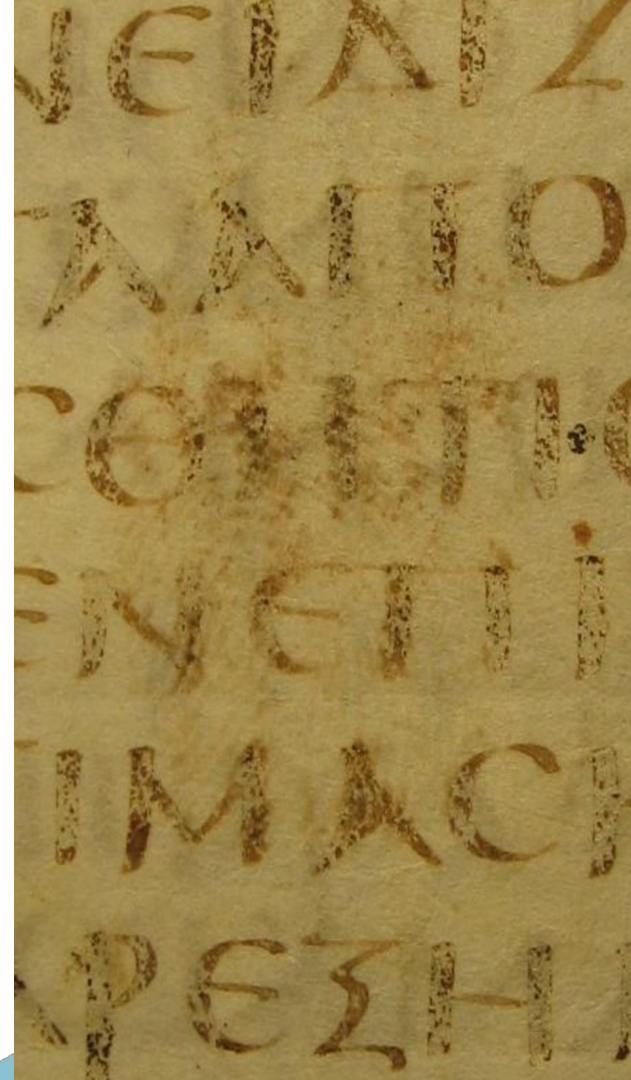
Community

- National Libraries
- University Libraries
- Museums, Archives
- Internet Archive
- u.v.m.

<http://iiif.io/community>

Demo: Codex Sinaiticus

- Manuscript of the Christian Bible
- Written in the middle of the 4th century
- Earliest complete copy of the New Testament



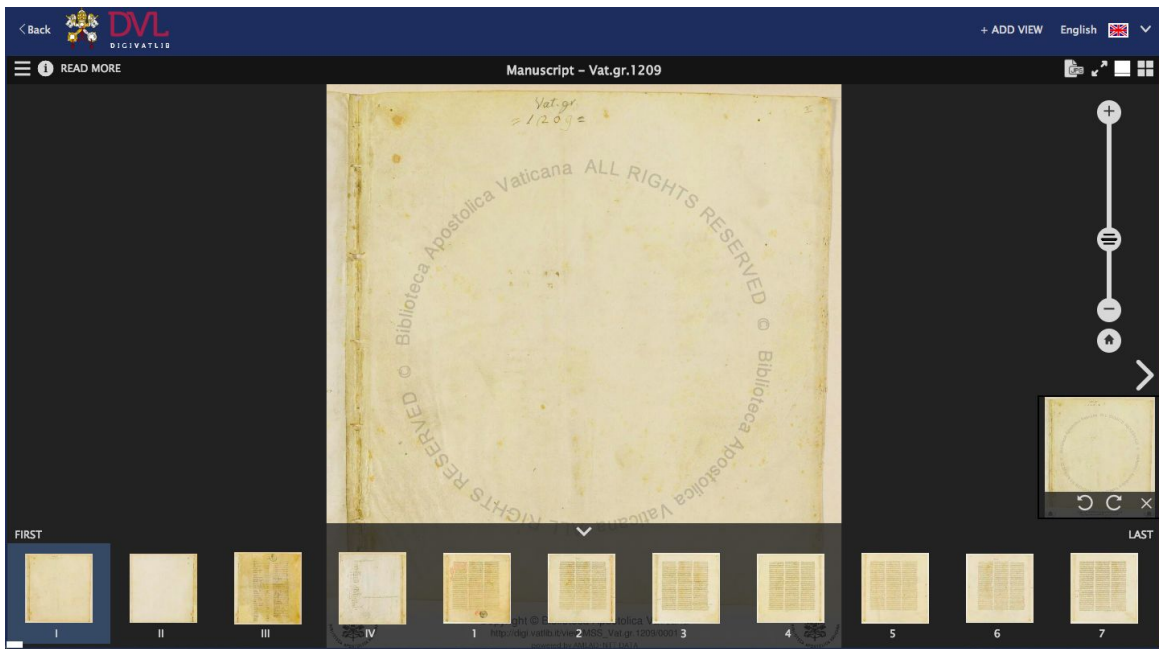
Codex Vaticanus Graecus 1209



New Testament manuscript
papyri • uncials • minuscules • lectionaries



Page from *Codex Vaticanus*; ending of 2 Thes and beginning of Heb



Screenshot Vatikanische Bibliotheken

Name	Vaticanus
Sign	B
Text	Old and New Testament
Date	c. 300–325
Script	Greek
Now at	Vatican Library
Cite	C. Vercellonis, J. Cozza, <i>Bibliorum Sacrorum Graecus Codex Vaticanus</i> , Roma 1868.
Size	27 × 27 cm (10.6 × 10.6 in)
Type	Alexandrian text-type
Category	I
Note	very close to B^{66} , B^{75} , 0162

Demo Codex Vaticanus und Codex Sinaiticus

Mirador: <https://digital.ub.uni-leipzig.de>

Codex Sinaiticus (testing, Leipzig leaves only!)

<https://iiif.ub.uni-leipzig.de/0000000002/manifest.json>

<https://digital.ub.uni-leipzig.de/object/viewid/0000000002>

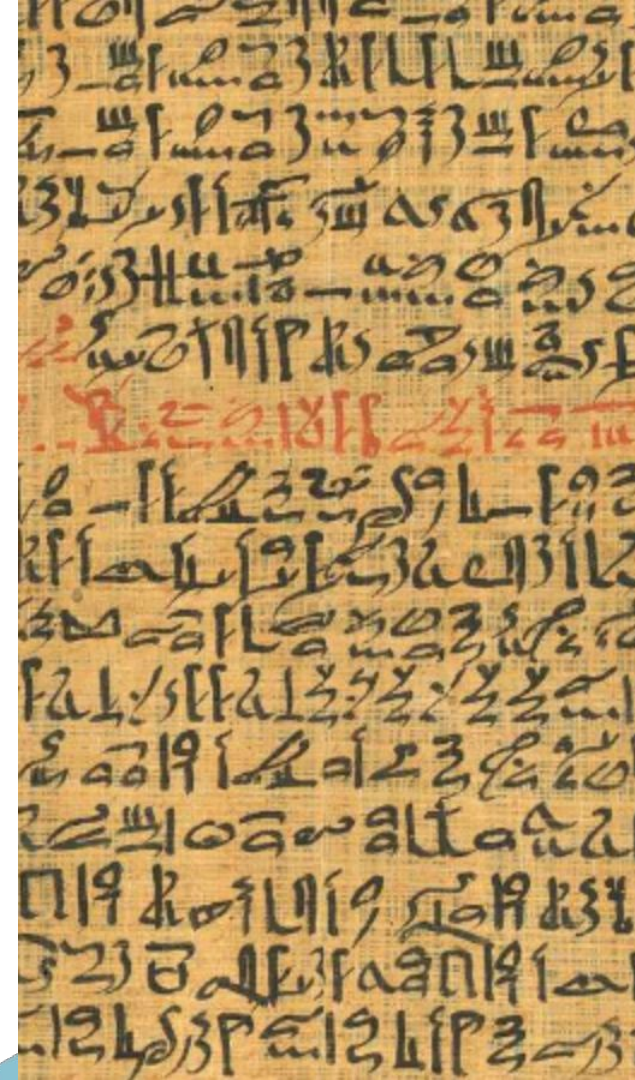
Codex Vaticanus

https://digi.vatlib.it/iiif/MSS_Vat.gr.1209/manifest.json

https://digi.vatlib.it/view/MSS_Vat.gr.1209/0001

Demo: Papyrus Ebers

- Papyrus scroll from Egypt
- Age: > 3,500 years (from 16th century BC)
- Description of 879 medical treatments



Papyrus Ebers

Special requirements:

- Unusual format (scroll): 18,63 m (20,37 yards) x 0,30 m (11,81 inches)
- Integrate Mirador with Wordpress for static content
- Translations for the whole text and in different languages
- Search in annotations (**linking not implemented yet**)
- Individual modifications of the layout

Demo: <http://papyrusebers.de>

Demo: ANTLITZ.NINJA



- combines IIIF images from different sources
- face regions are annotations

IIIF APIs (Version 2.x, Version 3 still beta but coming soon)

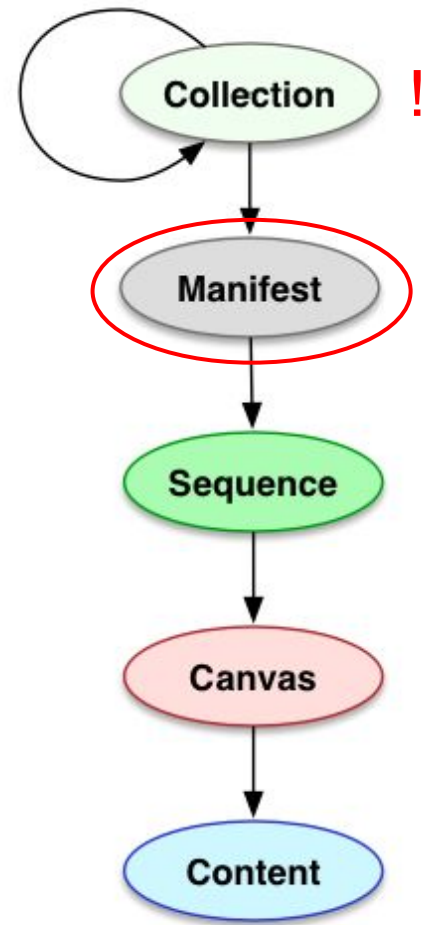
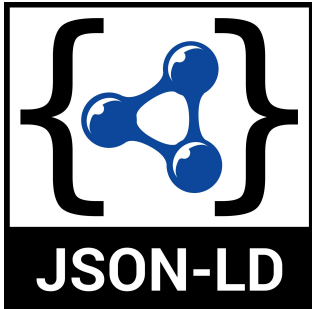
- **IIIF Image API 2.1** (“Core API”)
- **IIIF Presentation API 2.1** (“Core API”)
- IIIF Search API 1.0
- IIIF Authentication API 1.0

CC-BY, <http://iiif.io/technical-details/>

Presentation API

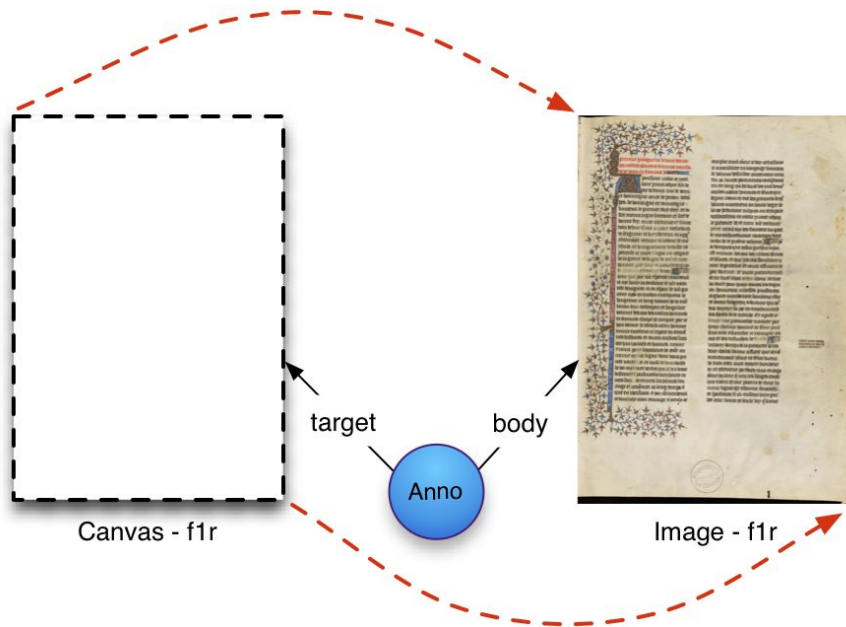
Presentation API (Version 2)

- Structure
 - Collection, Item, Sequence, Parts
- Properties
 - Labels, description, license, attribution, links



Shared Canvas Data Model

- Linked Data based approach (JSON-LD)
- globally unique identifiers: HTTP^S URIs



Top Level Collection

```
{
  @context: "http://iiif.io/api/presentation/2/context.json",
  @id: "https://iiif.ub.uni-leipzig.de/static/collections/toplevel.json",
  @type: "sc:Collection",
  label: "IIIF Collection for Leipzig University Library",
  description: "Collection for all IIIF manifests which are produced by the Leipzig Univ
- collections: [
  - {
    @id: "https://iiif.ub.uni-leipzig.de/static/collections/misc/cdvost2018.json",
    @type: "sc:Collection",
    label: "Coding da Vinci Ost 2018"
  },
  - {
    @id: "https://iiif.ub.uni-leipzig.de/static/collections/Druckel16/collection.json",
    @type: "sc:Collection",
    label: "Drucke des 16. Jahrhunderts",
    attribution: "Provided by Leipzig University Library",
    - logo: {
      @id: "https://iiif.ub.uni-leipzig.de/ubl-logo.png",
      format: "image/png"
    }
  },
  - {
    @id: "https://iiif.ub.uni-leipzig.de/static/collections/LeipzigerVerlage/colle
    @type: "sc:Collection",
    label: "Leipziger Verlage",
```

Collection

```
{
  @context: "http://iiif.io/api/presentation/2/context.json",
  @id: "https://iiif.ub.uni-leipzig.de/static/collections/Druckel16/collection.json",
  @type: "sc:Collection",
  label: "Drucke des 16. Jahrhunderts",
  - manifests: [
    - {
      @type: "sc:Manifest",
      @id: "https://iiif.ub.uni-leipzig.de/0000001660/manifest.json",
      label: "Precationum formulae Ex Singvlis Evangeliiis Dominicorvm, Et Festorvm",
    },
    - {
      @type: "sc:Manifest",
      @id: "https://iiif.ub.uni-leipzig.de/0000002277/manifest.json",
      label: "[Rostocker Gesangbuch]"
    },
    - {
      @type: "sc:Manifest",
      @id: "https://iiif.ub.uni-leipzig.de/0000007051/manifest.json",
      label: "... Axiomata Haec Ex Ivre Caesareo & Pontificio deprompta"
    },
    - {
      @type: "sc:Manifest",
      @id: "https://iiif.ub.uni-leipzig.de/0000001576/manifest.json",
      label: "Dictionarivm Latinogermanicvm Et Vice Versa Germanicolatinum"
```

Manifest – Head

```
{
  @context: "http://iiif.io/api/presentation/2/context.json",
  @id: "https://iiif.ub.uni-leipzig.de/0000001660/manifest.json",
  @type: "sc:Manifest",
  label: "Precationum formulae Ex Singvlis Evangeliiis Dominicorvm, Et Festorvm Dierv",
  license: "https://creativecommons.org/publicdomain/mark/1.0/",
  attribution: "Provided by Leipzig University Library<br/>No Copyright - Public Dom",
  logo: "https://iiif.ub.uni-leipzig.de/ubl-logo.png",
  - related: [
    "https://katalog.ub.uni-leipzig.de/urn/urn:nbn:de:bsz:15-0010-122769",
    "https://digital.ub.uni-leipzig.de/object/viewid/0000001660",
    "https://iiif.ub.uni-leipzig.de/0000001660/manifest.json"
  ],
  - metadata: [
    - {
      label: "Kitodo",
      value: "2552"
    },
    - {
      label: "URN",
      value: "urn:nbn:de:bsz:15-0010-122769"
    },
    - {
      label: "VD16",
      value: "VD16 D 2761"
    }
  ]
}
```

Manifest – Sequence

```
- sequences: [
  - {
    @id: "https://iiif.ub.uni-leipzig.de/0000001660/sequence/1",
    @type: "sc:Sequence",
    - canvases: [
      - {
        @id: "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000001",
        @type: "sc:Canvas",
        label: "-",
        height: 1961,
        width: 1297,
        - images: [
          - {
            @id: "https://iiif.ub.uni-leipzig.de/0000001660/anno/8e80dcaa-0c68-4",
            @type: "oa:Annotation",
            motivation: "sc:painting",
            - resource: {
              @id: "https://iiif.ub.uni-leipzig.de/0000001660/00000001.jpg",
              @type: "dctypes:Image",
              label: "-",
              format: "image/jpeg",
              height: 1961,
              width: 1297,
              - service: {
                @context: "http://iiif.io/api/image/2/context.json",
                @id: "https://iiif.ub.uni-leipzig.de/iiif/j2k/0000/0016/0000",
                profile: "http://iiif.io/api/image/2/level1.json"
              }
            }
          }
        ]
      }
    ]
  }
]
```

link to Image API endpoint



Manifest – Structures

```
- structures: [
  + {...},
  + {...},
  + {...},
  + {...},
  - {
    @id: "https://iiif.ub.uni-leipzig.de/0000001660/range/LOG\_0004",
    @type: "sc:Range",
    label: "Dominica Aduentus Domini, Matth. 21.",
    - canvases: [
      "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000022",
      "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000023",
      "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000024",
      "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000025",
      "https://iiif.ub.uni-leipzig.de/0000001660/canvas/00000026"
    ],
    - metadata: [
      - {
        label: "metsDivType",
        value: "chapter"
      }
    ]
  },
  - {
    @id: "https://iiif.ub.uni-leipzig.de/0000001660/range/LOG\_0005",
    @type: "sc:Range",
```

How to produce IIIF files?

- several tools available:
<https://github.com/IIIF/awesome-iiif#presentation-api-libraries>
<https://github.com/IIIF/awesome-iiif#presentation-manifest-tools>
- often individual solutions for institutional files, formats, services
- some DAMS support IIIF
<https://github.com/IIIF/awesome-iiif#digital-asset-management-dams-that-support-iiif>
- we're going to use a tiny Python tool I created especially for this workshop

Image API

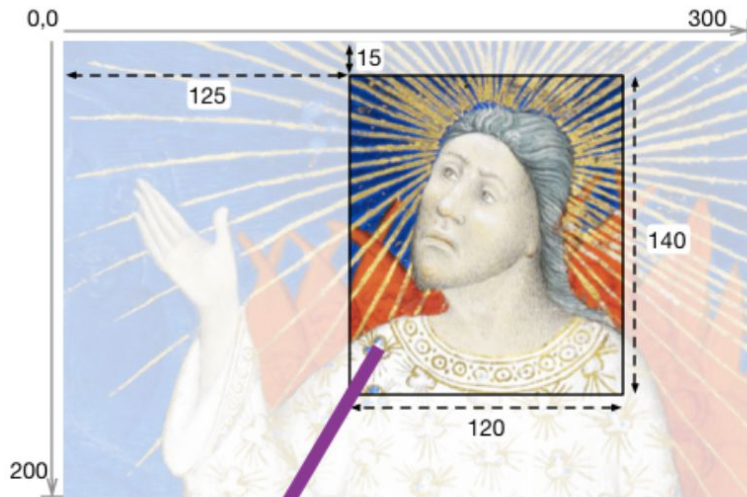
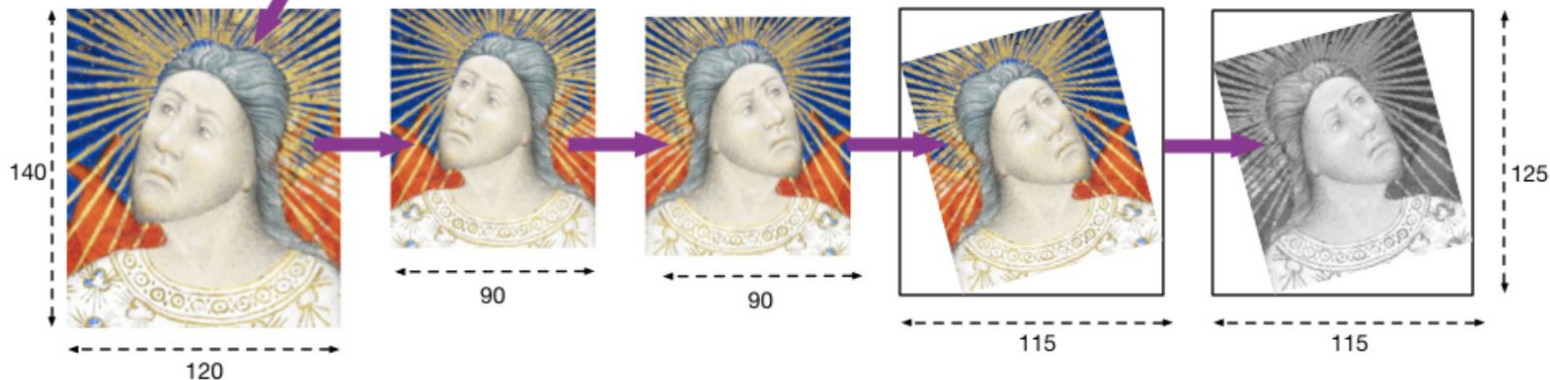


Image API (Pixel Delivery)

<http://iiif.io/api/image/2.1/>



region=125,15,120,140 size=90, rotation=!345 quality=gray
 .../125,15,120,140/90,/!345/gray.jpg

Image API – info.json

```
{
  @context: "http://iiif.io/api/image/2/context.json",
  @id: "https://iiif.ub.uni-leipzig.de/fcgi-bin/iipsrv.fcgi?iiif=/j2k/0000/0016/0000001",
  protocol: "http://iiif.io/api/image",
  width: 1465,
  height: 1943,
  - tiles: [
    - {
      width: 256,
      height: 256,
      - scaleFactors: [
        1,
        2,
        4,
        8
      ]
    }
  ],
  - profile: [
    "http://iiif.io/api/image/2/level1.json",
    - {
      - formats: [
        "jpg"
      ],
      - qualities: [
        "native",
        "color",

```

Image API – example

e/iiif/j2k/0000/0016/0000001660/00000348.jpj/full/400,/0/default.jpg|  

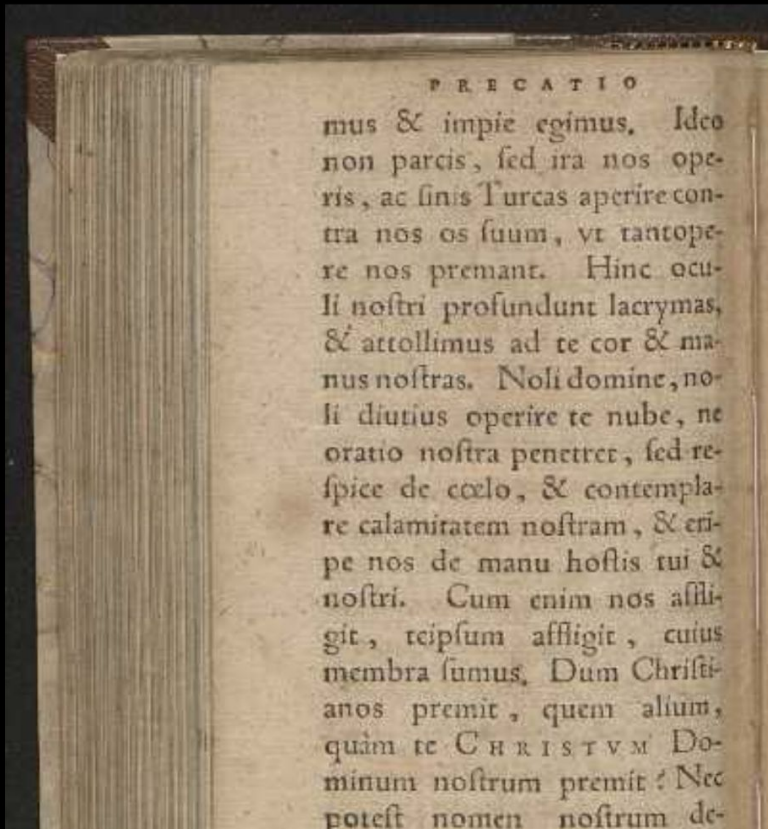


Image API implementations

Many different servers available

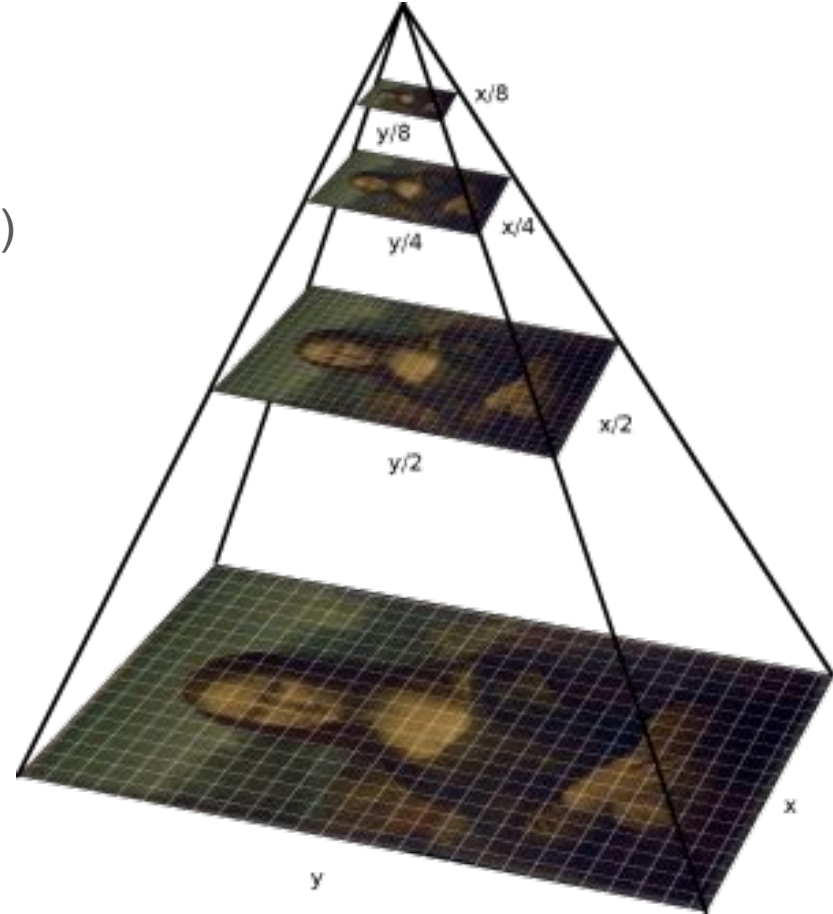
<http://iiif.io/apps-demos/#image-servers>

popular:

- Cantaloupe (Java)
- Loris (Python)
- IIPIImage Server ← we're going to use this one
(as a FastCGI-Modul for Apache, GPLv3)

Prepare Image Data

- Tiled Multi-Resolution (or Tiled Pyramidal)
- TIFF or JPEG2000
- available conversion tools
 - TIFF/jpeg: ImageMagick (Open Source)
 - **TIFF/jpeg: VIPS (Open Source)**
 - JPEG 2000: Kakadu (commercial)
 - JPEG 2000: OpenJPEG (Open Source)



use IIIF in your applications

Libraries (Image API):

- OpenSeadragon
- OpenLayers
- diva.js

Libraries (Presentation API):

- Manifesto (Javascript)

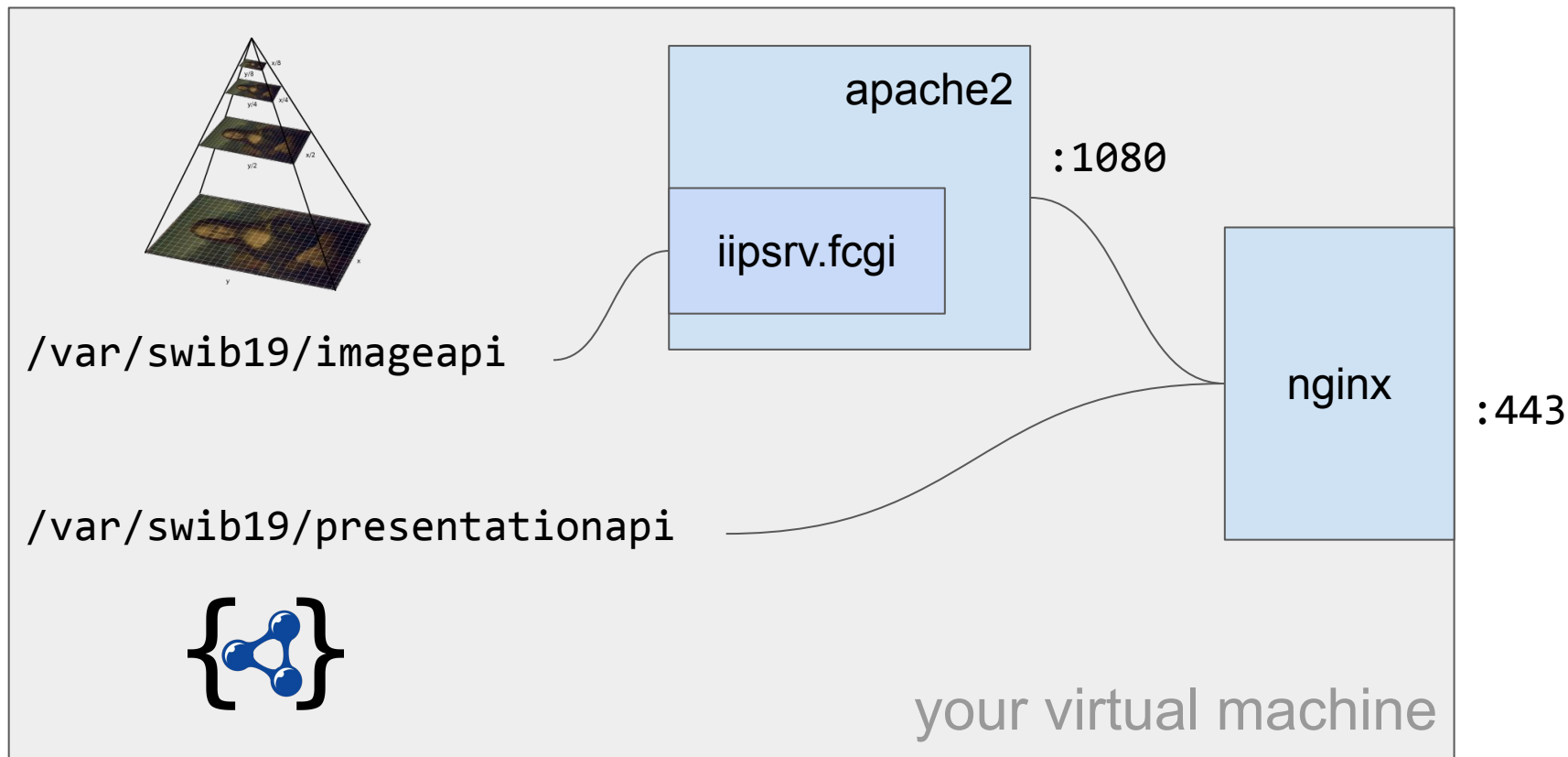
Viewers

(Image API + Presentation API):

- Mirador
- Universal Viewer
- TIFY
- Kitodo.Presentation

overview

what we want to build today: your own IIIF server



limitations

- I show you one way to implement IIIF services – the one I have experience with. There are many other ways and probably better ways to do it.
- It is not planned to create collections (which I would strongly recommend for production implementations). We concentrate on manifest files because most viewers work with them.
- We use API versions 2.x (while 3.x is already on beta state)
- We will not use existing structured metadata because we can't deal with too many different formats in this workshop that may come with your samples.

steps

1. the virtual machine
2. prepare data
3. install nginx and configure ssl
4. test Presentation API
5. install apache and iipimage servers
6. test Image API
7. share data with other participants

(optional: install Mirador 3 or manually create a collection file)

raise your hand!

whenever

- you have a question, a comment, a suggestion
- I make a mistake
- you feel that I say something wrong
- you need help with an issue

preparation

conventions in this presentation

commands to enter

expected output of commands

text **files** to view or edit

"x.x.x.x" refers to your IP or reversed IP

log in

```
ssh root@x.x.x.x
```

follow instructions to set a new password
... and **remember** your new password!

know your DNS entry

```
# nslookup x.x.x.x
```

```
x.x.x.x.in-addr.arpa name = static.x.x.x.x.clients.your-server.de
```

copy & paste your DNS entry to your locale machine,
you will **need it later!**

install your favorite editor

```
apt-get install vim
```

or

```
apt-get install nano
```

or

```
apt-get install mc
```

or...

(or attach your preferred remote editor via ssh/sftp/scp)

get the workshop tools

```
cd /var
```

```
git clone 'https://github.com/ubleipzig/swib19'
```

prepare your data

Image API

upload your images

```
scp -rp myimages root@x.x.x.x:/var/swib19/imageapi/
```

reorganize your images if necessary

```
cd /var/swib19/imageapi  
find
```

.

./My_Example_Sequence	
./My_Example_Sequence/001.jpg	
./My_Example_Sequence/002.jpg	
./My_Example_Sequence/003.jpg	

manifest

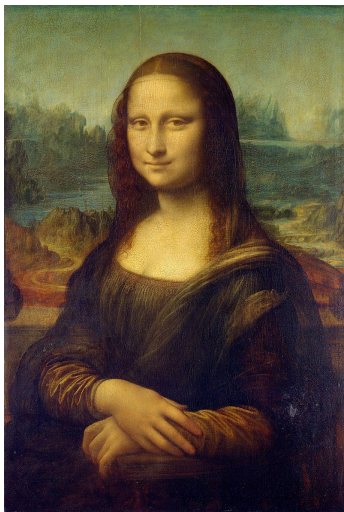
canvas

...

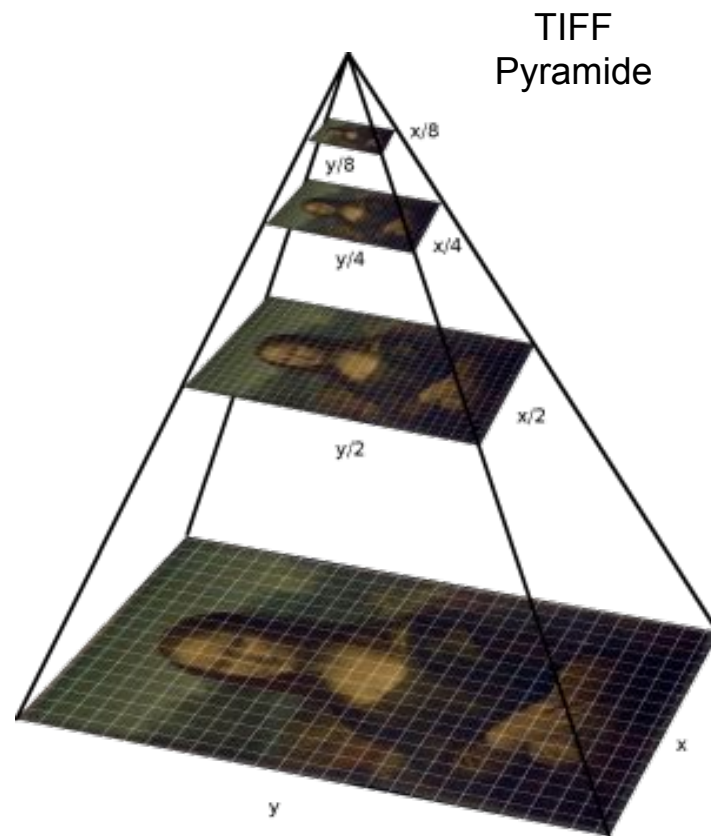
just in case...

<https://commons.wikimedia.org/wiki/Category:High-resolution>

convert images



JPEG



we use VIPS for image conversion

```
apt install libvips-tools imagemagick
```

(also possible with openjpeg, kaku and other tools)

<https://libvips.github.io/libvips/>

convert your images

```
cd /var/swib19/
```

```
./convert_images.sh
```

```
#!/bin/bash

find imageapi -type f | while read i
do
    if [ ${i: -5} != ".ptif" ]; then
        echo "converting $i to $i.ptif"
        vips im_vips2tiff $i $i.ptif:deflate,tile:256x256,pyramid
    else
        echo "skipping $i"
    fi
done
```

[optional] check your images

```
identify imageapi/folder/image.jpg.ptif
```

```
imageapi/folder/image.jpg.ptif[0] TIFF 2160x2880 2160x2880+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[1] TIFF 1080x1440 1080x1440+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[2] TIFF 540x720 540x720+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[3] TIFF 270x360 270x360+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[4] TIFF 135x180 135x180+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[5] TIFF 67x90 67x90+0+0 8-bit sRGB 20.67MB...
imageapi/folder/image.jpg.ptif[6] TIFF 33x45 33x45+0+0 8-bit sRGB 20.67MB...
```

Presentation API

metadata

- in this workshop we will not convert from any kind of structured metadata files
- instead we just use the names of files and folders to generate minimal metadata
- for real use cases you want to generate IIIF manifests and collection files from your structured metadata

install Python (and opencv for reading image files)

```
apt-get install python python-opencv python-pil
```



set configuration for IIF

```
vi config.json
```

```
{  
  "baseurl": "https://static.x.x.x.x.clients.your-server.de",  
  "creator": "My Name",  
  "license": "https://creativecommons.org/licenses/by/4.0/",  
  "attribution": "My Name",  
  "description": "SWIB19 demo dataset"  
}
```



explain

`make_iiif.py`

manifest template

```
{
  "@context": "http://iiif.io/api/presentation/2/context.json",
  "@id": "<uri>",
  "@type": "sc:Manifest",
  "attribution": "<unknown>",
  "description": "<unknown>",
  "label": "<unknown>",
  "logo": "",
  "metadata": [],
  "related": [],
  "sequences": [{
    "@id": "<uri>",
    "@type": "sc:Sequence",
    "canvases": []
  }]
}
```

canvas template

```
{
  "@id": "<uri>",
  "@type": "sc:Canvas",
  "format": "image/jpeg",
  "height": 0,
  "images": [{
    "@id": "<uri>",
    "@type": "oa:Annotation",
    "license": "<unknown>",
    "motivation": "sc:painting",
    "on": "<uri>",
    "resource": {
      "@id": "<uri>",
      "@type": "dctypes:Image",
      "format": "image/jpeg",
      "height": 0,
      "label": "<label>",
      "service": {
        "@context": "http://iiif.io/api/image/2/context.json",
        "@id": "<uri>",
        "profile": "http://iiif.io/api/image/2/level1.json"
      }
    }
  ]
}
```

create IIIF presentation API data

```
./make_iiif.py
```

```
writing: presentationapi/manifests/7d1e1d50136005e34571d46c317e435f.json
```

```
writing: presentationapi/manifests/1640fcf387ddb8292ff5fbfe8cd4a49e.json
```

```
writing: presentationapi/manifests/64cd8dd84baed44ba372d5a6cd4d097e.json
```

proxy server nginx

we use nginx as our front door – why?

- high performance web/proxy server and easy to configure
- handle SSL and CORS for all components
- easy URL manipulation / beautification
- extensible infrastructure to load balance multiple servers



install nginx

```
apt-get install nginx
```

basic configuration

```
cd /etc/nginx/sites-enabled  
rm default  
vi iiif.conf
```

```
server {  
    server_name static.x.x.x.x.clients.your-server.de;  
    listen 80;  
    root /var/www/html/;  
}
```

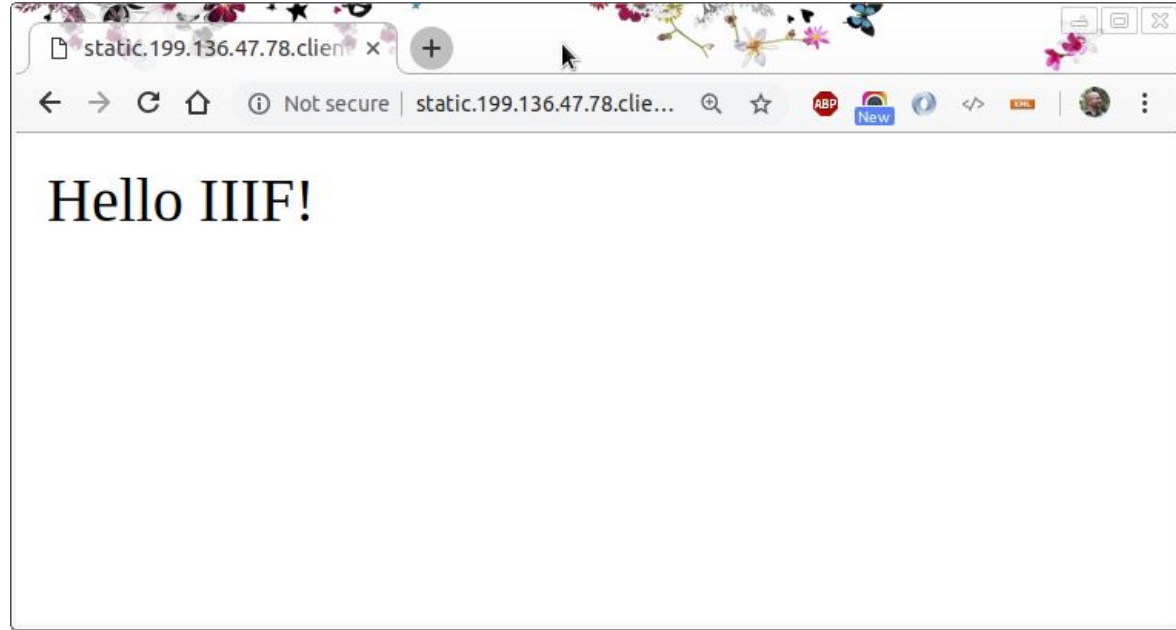
set minimal content

```
echo "Hello IIIF!" > /var/www/html/index.html
```

```
service nginx restart
```

test your webserver

open `http://static.x.x.x.x.clients.your-server.de`
in your web browser



SSL

We want SSL for all our resources so they can be used in other SSL based application!

install certbot

```
apt-get install certbot python-certbot-nginx
```



<https://letsencrypt.org>



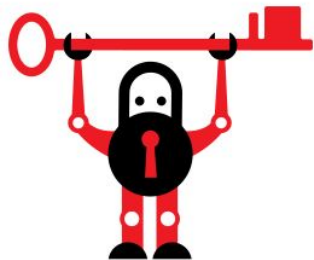
let certbot work for us

```
certbot --nginx --register-unsafely-without-email
```

answer:

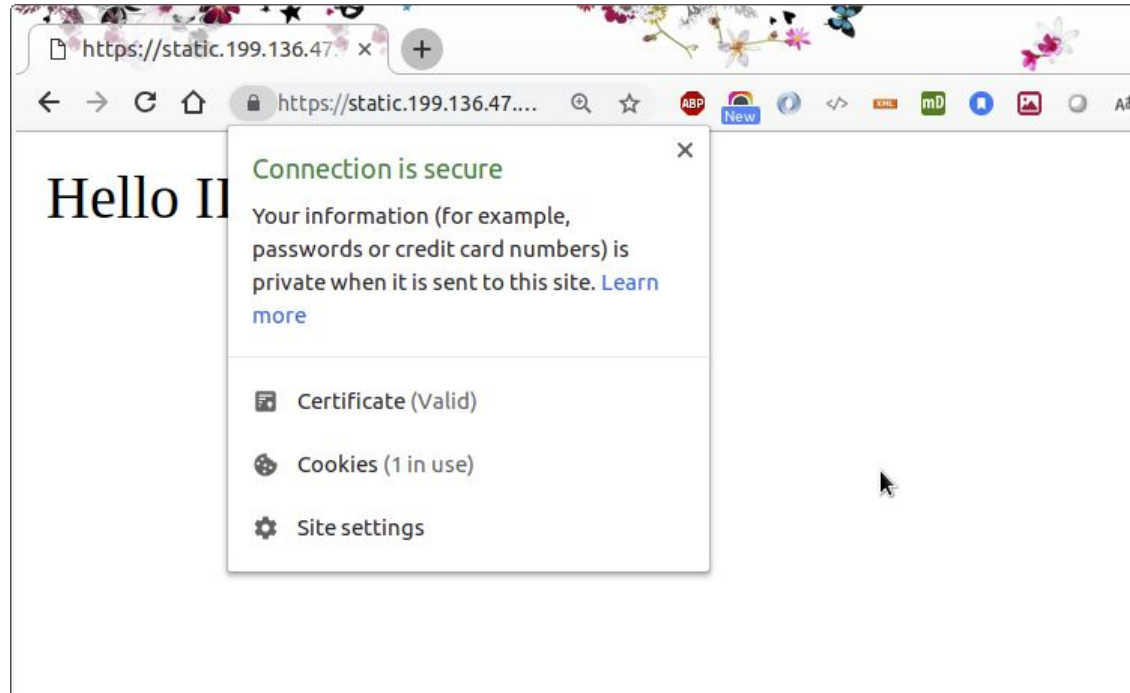
- (A)gree
- (1) select the only option
- (2) yes, redirect all traffic from port 80 to port 443

```
service nginx restart
```



test your **secure** webserver

open `https://static.x.x.x.x.clients.your-server.de`
in your web browser



serve our manifests – with CORS

in `/etc/nginx/sites-enabled/iiif.conf` in the port 443 section:

```
location /manifests {  
    root /var/swib19/presentationapi/  
    add_header 'Access-Control-Allow-Origin' '*';  
}
```

```
service nginx restart
```

@id → Browser URI

```
less
```

```
/var/swib19/presentationapi/manifests/03s...2a0.json
```

```
{  
  "@context":  
    "http://iiif.io/api/presentation/2/context.json",  
  "@id": "https://static.x.x.x.x.clients.your-server.de/  
manifests/03s...2a0.json",  
}
```

Hello IIF!

Elements Console Sources Network >> 3 X

View: [Icons] Group by frame Preserve log Disable

Filter [] Hide data URLs

All XHR JS CSS Img Media Font Doc WS Manifest Other

20 ms	40 ms	60 ms	80 ms	100 ms

Name X Headers Preview Response Timing

static.199.136.47.78.clie...

General

Request URL: https://static.199.136.47.78.clients.your-server.de/

Request Method: GET

Status Code: 304 Not Modified

Remote Address: 78.47.136.199:443

Referrer Policy: no-referrer-when-downgrade

Response Headers view source

Access-Control-Allow-Origin: *

Connection: keep-alive

Date: Mon, 04 Nov 2019 17:47:53 GMT

ETag: "5dc060aa-c"

Last-Modified: Mon, 04 Nov 2019 17:32:26 GMT

1 requests | 219 B transfe...

https://static.199.136.47.78

https://static.199.136.47.78.clients.your-server.de/manifests/1640fcf387ddb8292ff5fbfe8cd4a49e.json

view source

```
{
  @context: "http://iiif.io/api/presentation/2/context.json",
  @id: "https://static.199.136.47.78.clients.your-
server.de/manifests/1640fcf387ddb8292ff5fbfe8cd4a49e.json",
  @type: "sc:Manifest",
  attribution: "Leander Seige",
  description: "SWIB19 demo dataset",
  label: "Burg Bad Liebenstein",
  logo: "",
  - metadata: [
    - {
      label: "Author",
      value: "Leander Seige"
    }
  ],
  related: [ ],
  - sequences: [
    r
```

https://iiif.io/api/presentation/validator/service/



ABOUT

TECHNICAL DETAILS

APPS & DEMOS

COMMUNITY

EVENTS

NEWS

Presentation API Validator

This service will validate a IIIF Presentation API resource against the specification. Fill in the URL of your manifest, and it will try to parse it and issue errors for failed requirements, and warnings for recommendations that haven't been followed.

URL of Manifest to Validate:

Select Presentation API Version: 2.1 ▼

Validation Results:

URL Tested: <https://static.199.136.47.78.clients.your-server.de/manifests/1640fcf387ddb8292ff5fbfe8cd4a49e.json>

Validated successfully

Warnings:

- The remote server did not use the requested gzip transfer compression, which will slow access. (Content-Encoding:)
- WARNING: Setting non-standard field 'format' on resource of type 'sc:Canvas'

apache webserver and iipimage

install apache2 and iipimage

```
apt-get install apache2 iipimage-server
```

(**ignore errors**, nginx is already using the ports 80 and 443,
we will fix this later)

```
cd /etc/apache2
```

move apache2 to other ports

because nginx is already using 80 and 443

vi ports.conf

```
Listen 1080

<IfModule ssl_module>
    Listen 1443
</IfModule>

<IfModule mod_gnutls.c>
    Listen 1443
</IfModule>
```

move apache2 to other ports

because nginx is already using 80 and 443

```
vi sites-enabled/000-default.conf
```

```
<VirtualHost *:1080>
```

```
# The ServerName directive sets the requ
# the server uses to identify itself. Th
# redirection URLs. In the context of vi
# specifies what hostname must appear in
# match this virtual host. For the defau
```

turn on fcgid and iipsrv mods

```
a2enmod iipsrv
```

```
a2enmod fcgid
```

(probably already enabled)

configure iipsrv

```
vi /etc/apache2/mods-enabled/iipsrv.conf
```

```
# Set our environment variables for the IIP server
FcgidInitialEnv VERBOSITY "1"
FcgidInitialEnv LOGFILE "/var/log/iipsrv.log"
FcgidInitialEnv MAX_IMAGE_CACHE_SIZE "10"
FcgidInitialEnv JPEG_QUALITY "90"
FcgidInitialEnv MAX_CVT "5000"
FcgidInitialEnv MEMCACHED_SERVERS "localhost"
FcgidInitialEnv BASE_URL "https://static.x.x.x.x.clients.your-server.de"
FcgidInitialEnv FILESYSTEM_PREFIX "/var/swib19/"
```

```
service apache2 restart
```

connect nginx and apache2

```
vi /etc/nginx/sites-enabled/iiif.conf  
service nginx restart
```

```
location /imageapi/ {  
    add_header 'Access-Control-Allow-Origin' '*';  
    proxy_pass http://localhost:1080/iipsrv/iipsrv.fcgi?iiif=/imageapi/;  
}
```

open the manifest again in your browser

```
format: "image/jpeg",  
height: 3024,  
label: "Wiese",  
- service: {  
    @context: "http://iiif.io/api/image/2/context.json",  
    @id: "https://static.14.125.47.78.clients.your-server.de/imageapi/Wiese/20191012\_135518.jpg.ptif",  
    profile: "http://iiif.io/api/image/2/level1.json"  
  },  
width: 4032  
}
```

find the a service:{ } block and open the URI in @id

append info.json to the URI

← → ↻ 🏠 🔒 server.de/imageapi/Burg_Bad_Liebenstein/20181020_110950.jpg.tif/info.json

```
{
  @context: "http://iiif.io/api/image/2/context.json",
  @id: "https://static.199.136.47.78.clients.your-server.de/imageapi",
  protocol: "http://iiif.io/api/image",
  width: 4032,
  height: 2268,
  - sizes: [
    - {
      width: 63,
      height: 35
    }
  ]
}
```

play with the Image API

append: ...38.jpg.ptif/full/full/0/default.jpg



append: ...38.jpg.ptif/full/200,/0/default.jpg



append: ...38.jpg.ptif/full/600,/0/default.jpg



...38.jpg.ptif/400,400,800,800/600,/0/default.jpg

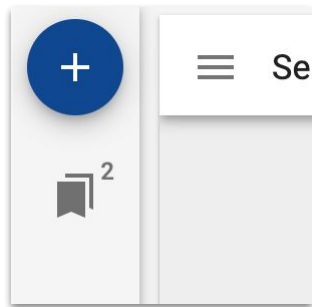


...38.jpg.ptif/400,400,800,800/600,/270/default.jpg



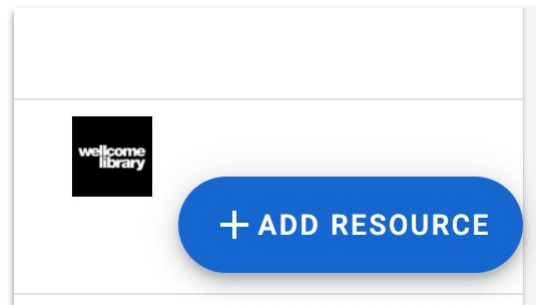
load our manifest in a IIIF viewer

<https://mirador-dev.netlify.com>



1 - press the big
PLUS button

2 - press ADD RESOURCE



3 - paste your manifest URI
and ADD it

A screenshot of the 'Add resource' dialog in Mirador. The dialog has a blue header with a downward arrow and the text 'Add resource'. Below the header is a text input field labeled 'Resource location' with a vertical cursor. At the bottom of the dialog, there is a label 'The URL of a IIIF resource'.

share data with others

paste links to your manifests here:

<https://pad.okfn.de/p/swib19iiif>

optional: install Mirador 3

get everything and build Mirador 3

```
apt-get install git npm
```

```
cd /var/www/html
```

```
git clone 'https://github.com/ProjectMirador/mirador'
```

```
cd mirador
```

```
npm install
```

```
npm run build
```



open your Mirador 3 instance

https://static.x.x.x.x.clients.your-server.de/mirador/___tests___/integration/mirador/

Checklist

- send CORS headers on all resources
- use HTTPS everywhere
- offer links to IIIF manifests in your catalog / discovery system
- offer IIIF collection files
- make clear license statements
- *Psst: cool URIs don't change!*

Attend IIF events! <https://iif.io/event/>

June 1-4, 2020	<u>IIF Annual Conference</u>	IIF focus	Boston, Massachusetts, MA	Everyone! Annual, international	
November 5, 2020	<u>Digitalisate interoperabel ins Netz! IIF Outreach auf der MUTEK 2020</u>	TBA	Leipzig, Germany	TBA	Outreach Event at MUTEK 2020, international trade fair for museums and exhibition technology



UNIVERSITÄT
LEIPZIG

Thank You!

Leander Seige

E-Mail: seige@ub.uni-leipzig.de

Twitter: [@mjkl5](https://twitter.com/mjkl5)

Web: www.ub.uni-leipzig.de

further reading:

<http://iiif.io>

<https://github.com/IIIF/awesome-iiif>

get involved:

<https://iiif.io/community>

- [IIIF Community Google Drive](#)
- [IIIF Community Calendar](#)

UNIVERSITÄTS
BIBLIOTHEK *ubl* LEIPZIG

