

Handbook: how to import the WFL catalogue into your own website

Explanation – for user office colleagues: [pp 1-2](#)

Instructions – for IT colleagues only: [p3](#)

Attachment – demo for IT colleagues

Explanation:

1) Thanks to the H2020 EUCALL project, in 2018 the WFL database has been created from scratch and previous data migrated into the new one. The database is accessible through Umbrella login at <https://wfl.elettra.eu> ; every facility's user office has privileges to add Umbrella users and give them access.

2) Upon explicit request of some project partners (DESY and EuXFEL mainly), the database was built in a way that easy and semi-automatic mirroring of the data would have been possible at other websites e.g. project or facility websites.

3) This is achieved via dedicated APIs (= Application Programming Interfaces) that allow the receiving website to get (and automatically update) a subset of the database data. Figure 1) displays the general functioning of the WFL and wayforlight.eu websites: the catalogue's section on www.wayforlight.eu can be just seen as a receiving website displaying 100% of the catalogue.

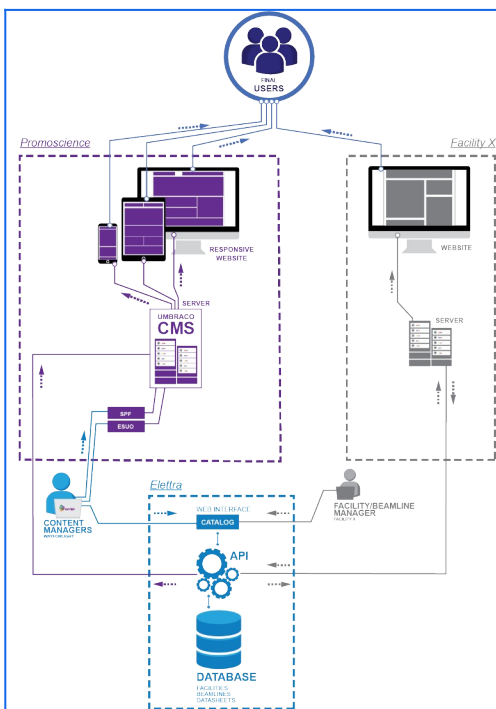


Fig. 1: Schema WFL: the “Facility X” section in grey is what we discuss in this document.

4) Figures 2) and 3) display how the Export APIs are used at the www.elettra.eu website, for both the ELETTRA and FERMI beamlines datasheets (Specification page): the BL scientist, editing their own beamline page with our internal Wiki system, can include a set of rows that catch the data directly from the WFL database. The graphics are those of the facility website, but the data displayed are the same as on wayforlight.eu. Moreover, they can import single objects (e.g.

Monochromator) and insert free text or imagine between this and the next object they wish to display (e.g. Sample Holder). Alternatively, they can import the whole BL datasheet at once.

```

Elettra WFL plugin
Copy and paste this code in your Specification page source

<h2><br /></h2>
{module WFL.Elettra | obj=SynchrotronBeamline | name=BL01.2L-Nanospectroscopy}

<hr class="system-pagebreak" title="Photon Sources" />
<h2><br />Photon Sources</h2>
{module WFL.Elettra | item=SynchrotronPhotonSource}

<hr class="system-pagebreak" title="Additional Lightsources" />
<h2><br />Additional Lightsources</h2>
{module WFL.Elettra | item=SynchrotronAdditionalLightSource}

<hr class="system-pagebreak" title="Monochromators" />
<h2><br />Monochromators</h2>
{module WFL.Elettra | item=Monochromator}

<hr class="system-pagebreak" title="Other Optics" />
<h2><br />Other Optics</h2>
{module WFL.Elettra | item=OtherOptic}

<hr class="system-pagebreak" title="Endstations" />
<h2><br />Endstations</h2>
{module WFL.Elettra | item=Endstation}

<hr class="system-pagebreak" title="Detectors" />
<h2><br />Detectors</h2>
{module WFL.Elettra | item=Detector}

<hr class="system-pagebreak" title="Support Laboratories" />
<h2><br />Support Laboratories</h2>
{module WFL.Elettra | item=SupportLaboratory}

```

Fig. 2: code to be copied in the Elettra’s website, which is based on the Joomla content management system (CMS).

The screenshot shows the 'Specifications' page on the Elettra website. The page includes a navigation menu at the top and a list of specifications. A table on the right side of the page lists the following specifications:

Beamline Energy Resolution	14 [meV] @ 100 [eV] 100 [meV] @ 400 [eV]
Beamline Resolving Power	$7.5 \cdot 10^3$ [deltaE/E] @ 100 [eV] $4 \cdot 10^3$ [deltaE/E] @ 400 [eV]
Beamline Energy Range	10 - 1000 [eV]
Max Flux On Sample	$1.5 \cdot 10^{13}$ [ph/s] @ 150 [eV] $6.5 \cdot 10^{11}$ [ph/s] @ 400 [eV]
Spot Size On Sample Hor	20 - 30 [um]
Spot Size On Sample Vert	3 - 10 [um]
Angle Of Incidence Light On Sample Value	16 [degrees]

Fig. 3: a) BL Specification page on Elettra’s website b) corresponding page on wayforlight.eu

5) What’s next ? Before passing the following pages to your IT colleagues, you need to ask wfl-support@elettra.eu to create an “Export user” for your Facility (= node in the database). At present only the facilities listed in figure 4) did so, but we don’t know how and if they implemented any further step.

Users

Export list as CSV Export list as XLS (Excel)

Search:

id	username	domain	full name	email	role	enabled facilities	last login
283	Elettra.Exporter	local	Data Export User		exporter	Elettra	2020-10-23 07:51
284	FERMI.Exporter	local	Data Export User		exporter	FERMI	2020-10-23 04:55
298	EuXFEL.Exporter	local	Data Export User		exporter	EuXFEL	2019-05-29 08:57
300	PETRA_III.Exporter	local	Data Export User		exporter	PETRA III at DESY	2020-03-20 09:45
301	FLASH.Exporter	local	Data Export User		exporter	FLASH at DESY	2019-05-13 09:45
333	ESRF.Exporter	local	Data Export User		exporter	ESRF	2019-11-26 09:48

Fig. 4: List of current Exporters on WFL

Instructions:

Step 1 - Request authorization token

send POST request to <https://wfl.elettra.eu/api/v1/auth>

with data:

```
username = <ExporterUsername>.Exporter  
password = <PASSWORD>
```

As result you will obtain the authorization token (JSON Web Token)

```
{ "JWT": "<JWT_TOKEN>" }
```

Step 2 - Request data

send a GET request to <https://wfl.elettra.eu/api/v1/facility>

in the header of request set the parameter **Authorization** as JWT:<JWT_TOKEN>

As result you will obtain a json with your published data

Attachment: The **wfl demo.zip** file includes the example of how the 2 APIs presented in the 2 Steps above work for the Elettra's website. To use the demo, use your own Exporter Account.