



The leading provider of aerial imagery, remote sensing and geospatial solutions

Customer Support Document

BlomURBEX™ WMS Service - User Guide



Revision History

REVISION HISTORY

Document Number	Issue Date	Reason for Change
V 2.0.5a	September 2011	Initial Creation
V 2.06	March 2013	Update of Format
V 3.0.0	November 2013	New service release
V 3.1.0	March 2015	WMS overlays support added.
V 3.1.2	February 2016	Added new Finnish projection systems
V 3.1.3	December 2016	Added mixed format support Added default “extraZoom” value
V 3.2.0	February 2018	Added GetFeatureInfo & HTTPS support



Revision History

CONTENTS

1.	Scope	vi
2.	BlomURBEX™ WMS Service	vi
2.1.	Supported versions	vi
2.2.	Supported Reference Systems	vi
2.3.	Connecting to BlomURBEXTM WMS Service	vii
2.3.1.	SSL service (WMSServiceSSL)	vii
2.4.	Parameters	viii
2.4.1.	Result	x
2.4.2.	GetMap example	xi
2.4.3.	GetCapabilities example	xii
2.4.4.	GetFeatureInfo example	xiii



Notices

Blom™ expressly retains all intellectual and other property rights with respect to this document and all matters set forth herein.

Some technical assertions of capability included herein are estimates based on limited information gathered from past experience.

The terms, conditions, specifications, and procedures described herein are subject to change in the sole discretion of Blom™ and its affiliates. End-User is responsible for requesting and obtaining the latest release of these terms, conditions, specifications, and procedures prior to any purchase or deployment of the products described herein.

Confidentiality

This document and the information contained herein is the proprietary and confidential information of Blom™. It is provided under contract agreement, and may not be reproduced or used for purposes outside the scope of such agreement.

Trademarks

Blom's logo is a registered trademark of Blom™, in the Kingdom of Norway and other countries. Other brands and their products are registered trademarks or trademarks of their respective holders and should be noted as such.

Copyrights

2018, Blom • All Rights Reserved



1. SCOPE

Web Map Service (WMS) is a standard protocol for serving georeferenced map images over the Internet, in our case generated by BlomURBEX using the data stored in its internal database.

BlomURBEX™ offers the WMS service to allow users to access the vertical and rectified oblique imagery following OGC's regulation and directives.

The service uses the http protocol with the parameters normalized by OGC, which define version, type of request, coordinate system, bounding box, etc.

2. BLOMURBEX™ WMS SERVICE

2.1. SUPPORTED VERSIONS

Current supported WMS versions are 1.1.1 and 1.3.0. You can refer to the OGC WMS to obtain more information about mandatory and optional parameters for WMS requests.

<http://www.opengeospatial.org/standards/wms>

2.2. SUPPORTED REFERENCE SYSTEMS

BlomURBEX™ WMTS service supports several matrix systems. Default is EPSG:4326, but optimal is EPSG:3785. A complete list is available online in next URL:

<http://www.blomurbex.com/v02/WMTService?usertoken=xxxxxxxxxx&service=WMS&request=GetCapabilities>

Note: Different coordinate reference systems can be supported. Contact your local Blom Sales if necessary.

2.3. CONNECTING TO BLOMURBEXTM WMS SERVICE

To connect to the BlomURBEX™ WMS service from a GIS client, it is necessary to setup the following URL:

```
http://www.blomurbex.com/v02/WMSService?usertoken=usertokenstring
```

In this request, **usertokenstring** must be replaced by the unique platform access token provided by Blom.

GetCapabilities returns information about available imagery and layers. In the current version, 5 layers are supported, the ortho and the four mosaic rectified views (north, south, east and west) for each supported projection.

2.3.1. SSL service (WMSServiceSSL)

In order to support SSL web protocol (HTTPS) it has been added a new clone service on this URL:

```
https://www.blomurbex.com/v02/WMSServiceSSL?usertoken=usertokenstring
```

The response of this service will be equal to standard HTTP service, but with HTTPS links support



2.4. PARAMETERS

Parameters defined by OGC standard are:

- **Version [mandatory]:** This parameter is the WMS version that is used for this request. Only two values are accepted in the current API version:
 1. 1.1.1
 2. 1.3.0
- **Request [mandatory]:** Possible values are:
 1. GetMap. Used for retrieving an image/map.
 2. GetCapabilities used to obtain the web services descriptor xml file.
 3. GetFeatureInfo used to retrieving the available information (date & copyright) in pixel location inside the requested image.
- **Layers [mandatory]:** Identifies which view the user is requesting. Possible values:
 1. Ortho: For the ortho images.
 2. North: For the orthorectified North view images.
 3. South: For the orthorectified South view images.
 4. East: For the orthorectified East view images.
 5. West: For the orthorectified West view images.
- **Styles [mandatory]:** Parameter mandatory for WMS Standard, it must be present but its value is ignored by BlomURBEX.
- **Crs or srs [mandatory]:** Projection system used. It must follow OGC nomenclature. For example **EPSG:4326** for WGS84 LATLON or **EPSG:3785** for Spherical Mercator projection.
- **Bbox [mandatory]:** requested extent, following the rules of the WMS Standard: Xmin, Ymin, Xmax, Ymax
- **Width [mandatory]:** Width of the requested image in pixels.
- **Height [mandatory]:** Height of the requested image in pixels.
- **Format [mandatory]:** Image format. Supported formats are **image/jpeg/mixed**. Mixed mode change the service behaviour allowing us to receive a jpeg or png image. We will receive a jpeg image if requested area has full coverage by Urbex data (allowed layers for user). If not, we will receive a png image with a transparent data for missing coverage area.

- **Usertoken [mandatory]:** User's Token for authentication purposes. This token is unique for each client and must be requested from Blom.
- **Time [optional]:** A date following the structure YYYYMMDD or YYYYMM or YYYY. The service will return the most recent image available starting from the year provided.

It is also possible to use a range of dates with the structure YYYYMMDD-YYYYMMDD. In this case the returned image will be the most recent one available in the specified range.

If the parameter is omitted the system will submit the most recent version of the imagery.

- **Service:** This parameter is mandatory with a fixed value set to **WMS**.
- **Overlay [optional]:** The overlay name to be used as data source. Returns PNG format image.
- **ExtraZoom [optional]:** Allows get one extra zoom level resampling previous zoom level tiles. Possible values are **true/false**. If required, it is possible to set a default value when parameter is missing. This functionality must be added in the BlomURBEXUserManagement (Users Profiles & Extensions) page. There is a new Profile (WMS/WMTS enhanced) that must be enabled for required user.
- **Query_layers [Mandatory GetFeatureInfo]:** The layer name to be used as source.
- **Info_format [Optional GetFeatureInfo]:** The output format for GetFeatureInfo. Available formats are 'text/plain', 'text/xml', 'application/json' & 'application/vnd.ogc.gml' (last one is default format).
- **X (or I) [Mandatory GetFeatureInfo]:** X Pixel location of GetFeatureInfo request
- **Y (or J) [Mandatory GetFeatureInfo]:** Y Pixel location of GetFeatureInfo request

2.4.1. Result

The result of the GetMap request will be a JPG image with the requested AOI.

If the user is not authorized to access this AOI or layer, a black JPG file with the text 'unauthorized' will be returned.

If the requested data is not available in the expected resolution level, the service checks in the next two upper zoom levels. In case of matching, the service will take this imagery, applying a digital zoom effect to adapt it to the bounding box and resolution requested by the user.

If no imagery is available a black JPG is returned.

The result of the GetFeatureInfo will be the 'Copyright' and Date Interval of the layer at the requested location.



2.4.2. GetMap example

```
http://www.blomurbex.com/v02/WMSService?usertoken=*****&service=WMS  
&version=1.1.1&request=GetMap&srs=EPSG:3785&bbox=-523000,4960000,-  
521500,4961500&width=550&height=550&layers=ortho&format=image/jpeg&sty  
les=
```

The result of the previous request is the image shown below:



To obtain the metadata xml file with the description of the GetMap web service, the **request** parameter must be set to “GetCapabilities”. It will be also necessary to set a value for **service** and **usertoken** parameters.

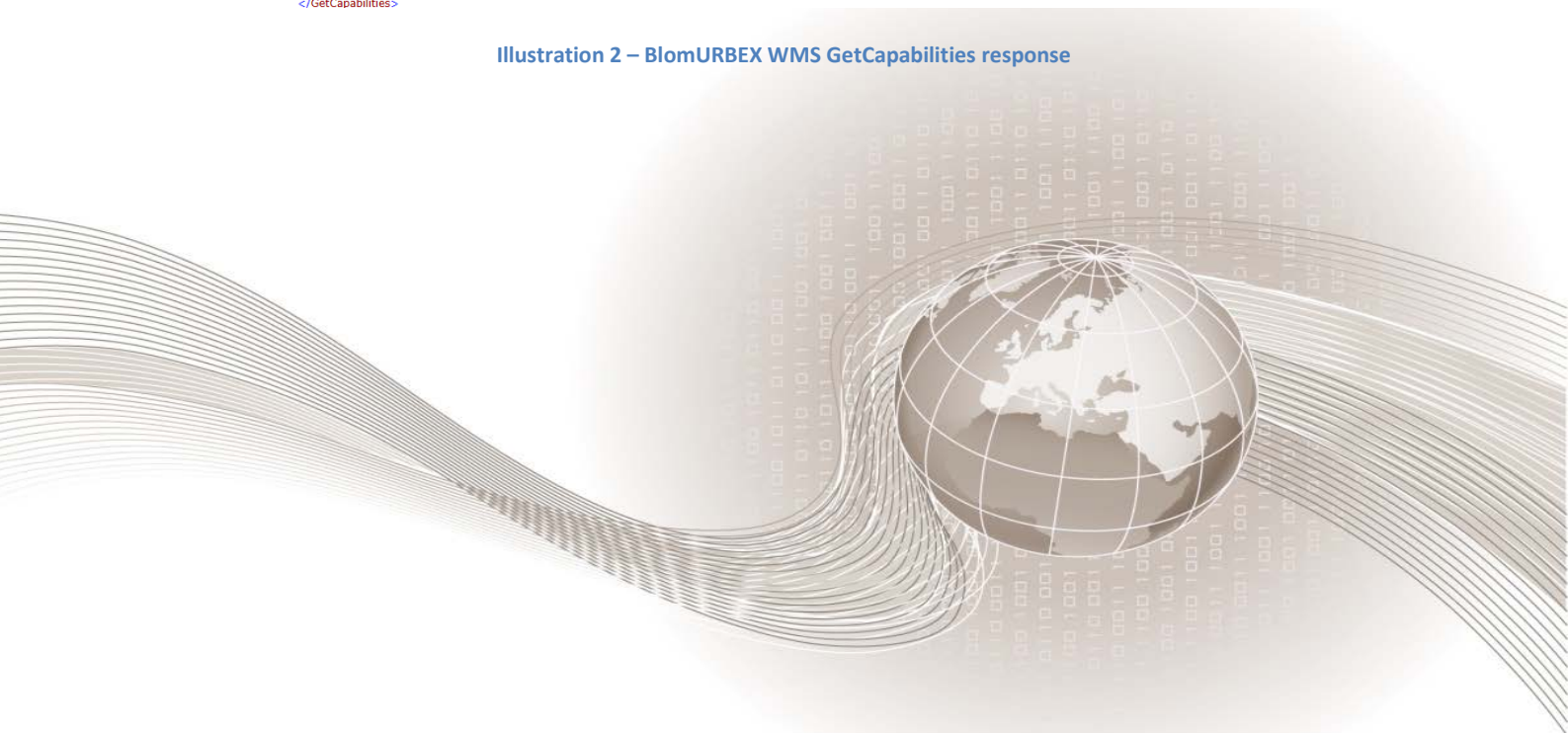
2.4.3. GetCapabilities example

```
http://www.blomurbex.com/v02/WMSService?version=1.1.1&request=GetCapabilities
&service=WMS&usertoken=*****
```

The result would be an xml file with the capabilities of the WMS similar to the one shown below:

```
<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE WMT_MS_Capabilities SYSTEM "http://schemas.opengis.net/wms/1.1.1/WMS_MS_Capabilities.dtd">
<WMT_MS_Capabilities version="1.1.1">
  <!-- GetMap Capabilities -->
  <Service>
    <Name>WMS</Name>
    <Title>BlomURBEX Web Map Service</Title>
    <Abstract>BlomURBEX WMS Service, delivering all BlomURBEX orthogonal and ortho rectified data</Abstract>
    <KeywordList>
      <Keyword>BlomURBEX</Keyword>
      <Keyword>Blom</Keyword>
      <Keyword>Images</Keyword>
    </KeywordList>
    <OnlineResource xlink:type="simple" xlink:href="http://www.blomurbex.com" xmlns:xlink="http://www.w3.org/1999/xlink"/>
    <ContactInformation>
      <ContactPersonPrimary>
        <ContactPerson>Antonio David Lopez</ContactPerson>
        <ContactOrganization>Blom Sistemas Geoespaciales, S.L.U.</ContactOrganization>
      </ContactPersonPrimary>
      <ContactPosition>BlomURBEX Operations manager, Blom Group</ContactPosition>
      <ContactAddress>
        <AddressType>POSTAL</AddressType>
        <Address>Calle Zurbano, 46</Address>
        <City>Madrid</City>
        <StateOrProvince>Madrid</StateOrProvince>
        <PostCode>28010</PostCode>
        <Country>Spain</Country>
      </ContactAddress>
      <ContactVoiceTelephone>+34 912106700</ContactVoiceTelephone>
      <ContactFacsimileTelephone>+34 913104914</ContactFacsimileTelephone>
      <ContactElectronicMailAddress>Antoniodavid.Lopez@blomasa.com</ContactElectronicMailAddress>
    </ContactInformation>
    <AccessConstraints>It is not allowed to implement a not free added value service without getting in touch with BLOM Sistemas Geoespaciales and signing a contract defining/making the marketing conditions.</AccessConstraints>
  </Service>
  <Capability>
    <Request>
      <GetCapabilities>
        <Format>application/vnd.ogc.wms_xml</Format>
      </GetCapabilities>
      <DCPTType>
        <HTTP>
          <Get>
            <OnlineResource xlink:type="simple" xlink:href="http://www.blomurbex.com/v02/WMSService?usertoken=tkbl2012&" xmlns:xlink="http://www.w3.org/1999/xlink"/>
          </Get>
          <Post>
            <OnlineResource xlink:type="simple" xlink:href="http://www.blomurbex.com/v02/WMSService?usertoken=tkbl2012" xmlns:xlink="http://www.w3.org/1999/xlink"/>
          </Post>
        </HTTP>
      </DCPTType>
    </Request>
  </Capability>
</GetCapabilities>
```

Illustration 2 – BlomURBEX WMS GetCapabilities response



2.4.4. GetFeatureInfo example

```
http://www.blomurbex.com/v02/WMSservice?VERSION=1.1.1&SERVICE=WMS&REQUEST=GetFeatureInfo&LAYERS=ortho&QUERY_LAYERS=ortho&FORMAT=image/jpeg&STYLES=&SRS=EPSG:3785&BBOX=1195100.282,8377811.596,1196943.655,8378593.082&X=540&Y=252&INFO_FORMAT=text/plain&WIDTH=1420&HEIGHT=602&usertoken=*****
```

The result would be text plain file with the Copyright and date interval similar to the one shown below:

Blom,2014-07-04,2014-07-04

