



# ADLConnect

## HTTP Interface Manual

Version 1.00

17.01.2017

## 1 General Description

The ADLConnect app is used to control the range of the ADL in flight weather devices. Starting with iPad app version 6.14 it is able to provide an HTTP interface which enables third party apps to access the latest in flight weather data and display it on moving maps etc.

In order to use the HTTP interface the ADLConnect and the third party app have to run in iOS9 split screen mode. All the download process etc. is controlled by the user through the ADLConnect app directly so the third party needs no special GUI etc. It can simply access the latest downloaded weather and display it on a moving map.

## 2 The HTTP interface

When running in iOS9 split screen mode the ADLConnect app will open an HTTP server on port 8124. Through this server the third part app can access the following files:

## 3 XML weather data overview

The overview file is the starting point for all weather data access by third party apps. All available weather data is either contained directly in this xml file or the URL for the detailed weather data is given.

The default URL to access the xml overview file is:

`http://localhost:8124/v0`

A full sample of the overview xml file is shown in section 5. Just a few notes as most of it is self explanatory:

- v0 in the request URL marks the version of the API
- The `changeIndex` attributes found at different places indicated if the content of this section has changed. So comparing the `changeIndex` values helps to recognized if the data has changed compared to a previous state.
- The `animationIndex` attributes are given for weather data that is available at different timestamps. Attention the `animationIndex="0"` image will be the latest images. So when playing back an animation the images should be played in the order 4,3,2,1,0. The number of available images will vary depending on the download situation.
- In strike images the strike locations are given by red pixels. This is up to the third parts application but we recommend replacing those red pixels for example by magenta crosses located at the center of the pixel on a moving map display.

#### **4 Contact**

Golze Engineering  
Bredowstr. 29  
10551 Berlin

<http://www.ing-golze.de>

[adl@ing-golze.de](mailto:adl@ing-golze.de)  
+49 30 39805204

## 5 Sample XML overview file

```
<adlData version="0" changeIndex="0">
  <radar changeIndex="0">
    <radarImage animationIndex="0">
      <timestamp>2016-09-30T20:45Z</timestamp>
      <url>http://192.168.0.109:8124/v0/radar/0.png</url>
      <projection>EPSG:3785</projection>
      <leftTopLatitude>73.000000</leftTopLatitude>
      <leftTopLongitude>-13.000000</leftTopLongitude>
      <rightBottomLatitude>34.178644</rightBottomLatitude>
      <rightBottomLongitude>36.000000</rightBottomLongitude>
      <imageWidth>980</imageWidth>
      <imageHeight>1450</imageHeight>
    </radarImage>
    <radarImage animationIndex="1">
      <timestamp>2016-09-30T20:30Z</timestamp>
      <url>http://192.168.0.109:8124/v0/radar/1.png</url>
      <projection>EPSG:3785</projection>
      <leftTopLatitude>73.000000</leftTopLatitude>
      <leftTopLongitude>-13.000000</leftTopLongitude>
      <rightBottomLatitude>34.178644</rightBottomLatitude>
      <rightBottomLongitude>36.000000</rightBottomLongitude>
      <imageWidth>980</imageWidth>
      <imageHeight>1450</imageHeight>
    </radarImage>
    <radarImage animationIndex="2">
      <timestamp>2016-09-30T20:15Z</timestamp>
      <url>http://192.168.0.109:8124/v0/radar/2.png</url>
      <projection>EPSG:3785</projection>
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      <leftTopLongitude>-13.000000</leftTopLongitude>
      <rightBottomLatitude>34.178644</rightBottomLatitude>
      <rightBottomLongitude>36.000000</rightBottomLongitude>
      <imageWidth>980</imageWidth>
      <imageHeight>1450</imageHeight>
    </radarImage>
    <radarImage animationIndex="3">
      <timestamp>2016-09-30T20:00Z</timestamp>
      <url>http://192.168.0.109:8124/v0/radar/3.png</url>
      <projection>EPSG:3785</projection>
      <leftTopLatitude>73.000000</leftTopLatitude>
      <leftTopLongitude>-13.000000</leftTopLongitude>
      <rightBottomLatitude>34.178644</rightBottomLatitude>
      <rightBottomLongitude>36.000000</rightBottomLongitude>
      <imageWidth>980</imageWidth>
      <imageHeight>1450</imageHeight>
    </radarImage>
    <radarImage animationIndex="4">
      <timestamp>2016-09-30T19:45Z</timestamp>
      <url>http://192.168.0.109:8124/v0/radar/4.png</url>
      <projection>EPSG:3785</projection>
      <leftTopLatitude>73.000000</leftTopLatitude>
      <leftTopLongitude>-13.000000</leftTopLongitude>
      <rightBottomLatitude>34.178644</rightBottomLatitude>
      <rightBottomLongitude>36.000000</rightBottomLongitude>
      <imageWidth>980</imageWidth>
      <imageHeight>1450</imageHeight>
    </radarImage>
  </radar>
</adlData>
```

```

<infrared changeIndex="0">
  <infraredImage animationIndex="0">
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    <url>http://192.168.0.109:8124/v0/infrared/0.png</url>
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    <leftTopLongitude>-45.000000</leftTopLongitude>
    <rightBottomLatitude>24.976254</rightBottomLatitude>
    <rightBottomLongitude>55.000000</rightBottomLongitude>
    <imageWidth>1000</imageWidth>
    <imageHeight>831</imageHeight>
  </infraredImage>
  <infraredImage animationIndex="1">
    <timestamp>2016-09-30T20:30Z</timestamp>
    <url>http://192.168.0.109:8124/v0/infrared/1.png</url>
    <projection>EPSG:3785</projection>
    <leftTopLatitude>73.000000</leftTopLatitude>
    <leftTopLongitude>-45.000000</leftTopLongitude>
    <rightBottomLatitude>24.976254</rightBottomLatitude>
    <rightBottomLongitude>55.000000</rightBottomLongitude>
    <imageWidth>1000</imageWidth>
    <imageHeight>831</imageHeight>
  </infraredImage>
  <infraredImage animationIndex="2">
    <timestamp>2016-09-30T20:15Z</timestamp>
    <url>http://192.168.0.109:8124/v0/infrared/2.png</url>
    <projection>EPSG:3785</projection>
    <leftTopLatitude>73.000000</leftTopLatitude>
    <leftTopLongitude>-45.000000</leftTopLongitude>
    <rightBottomLatitude>24.976254</rightBottomLatitude>
    <rightBottomLongitude>55.000000</rightBottomLongitude>
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    <imageHeight>831</imageHeight>
  </infraredImage>
  <infraredImage animationIndex="3">
    <timestamp>2016-09-30T20:00Z</timestamp>
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    <rightBottomLatitude>24.976254</rightBottomLatitude>
    <rightBottomLongitude>55.000000</rightBottomLongitude>
    <imageWidth>1000</imageWidth>
    <imageHeight>831</imageHeight>
  </infraredImage>
  <infraredImage animationIndex="4">
    <timestamp>2016-09-30T19:45Z</timestamp>
    <url>http://192.168.0.109:8124/v0/infrared/4.png</url>
    <projection>EPSG:3785</projection>
    <leftTopLatitude>73.000000</leftTopLatitude>
    <leftTopLongitude>-45.000000</leftTopLongitude>
    <rightBottomLatitude>24.976254</rightBottomLatitude>
    <rightBottomLongitude>55.000000</rightBottomLongitude>
    <imageWidth>1000</imageWidth>
    <imageHeight>831</imageHeight>
  </infraredImage>
</infrared>
<strike changeIndex="0">
  <strikeImage animationIndex="0">
    <timestamp>2016-09-30T20:45Z</timestamp>
    <url>http://192.168.0.109:8124/v0/strike/0.png</url>

```

```

        <projection>EPSG:3785</projection>
        <leftTopLatitude>80.000000</leftTopLatitude>
        <leftTopLongitude>-20.000000</leftTopLongitude>
        <rightBottomLatitude>25.048354</rightBottomLatitude>
        <rightBottomLongitude>50.000000</rightBottomLongitude>
        <imageWidth>700</imageWidth>
        <imageHeight>1137</imageHeight>
    </strikeImage>
    <strikeImage animationIndex="1">
        <timestamp>2016-09-30T20:30Z</timestamp>
        <url>http://192.168.0.109:8124/v0/strike/1.png</url>
        <projection>EPSG:3785</projection>
        <leftTopLatitude>80.000000</leftTopLatitude>
        <leftTopLongitude>-20.000000</leftTopLongitude>
        <rightBottomLatitude>25.048354</rightBottomLatitude>
        <rightBottomLongitude>50.000000</rightBottomLongitude>
        <imageWidth>700</imageWidth>
        <imageHeight>1137</imageHeight>
    </strikeImage>
    <strikeImage animationIndex="2">
        <timestamp>2016-09-30T20:15Z</timestamp>
        <url>http://192.168.0.109:8124/v0/strike/2.png</url>
        <projection>EPSG:3785</projection>
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        <rightBottomLatitude>25.048354</rightBottomLatitude>
        <rightBottomLongitude>50.000000</rightBottomLongitude>
        <imageWidth>700</imageWidth>
        <imageHeight>1137</imageHeight>
    </strikeImage>
    <strikeImage animationIndex="3">
        <timestamp>2016-09-30T20:00Z</timestamp>
        <url>http://192.168.0.109:8124/v0/strike/3.png</url>
        <projection>EPSG:3785</projection>
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        <rightBottomLatitude>25.048354</rightBottomLatitude>
        <rightBottomLongitude>50.000000</rightBottomLongitude>
        <imageWidth>700</imageWidth>
        <imageHeight>1137</imageHeight>
    </strikeImage>
</strike>
<windTempURL changeIndex="0">
    <url>http://192.168.0.109:8124/v0/windTemp.xml</url>/
</windTempURL>
<minimaURL changeIndex="0">
    <url>http://192.168.0.109:8124/v0/minima.xml</url>/
</minimaURL>
<metarTaf changeIndex="0">
    <metar>METAR EDDB 231550Z 08010KT CAVOK 22/11 Q1020

```

```
NOSIG=</metar>
<metar>METAR EDDM 231550Z 05006KT CAVOK 22/11 Q1017
NOSIG=</metar>
<taf>TAF LFMO 231400Z 2315/2324 20008KT CAVOK PROB40 TEMPO
2322/2324 4000 BR SCT010=</taf>
</metarTaf>
</adlData>
```