

WFS version 1.1.0

METAR / TAF

To get the Capabilities from my Obs as a Web Feature Service (from FSDs Vis Weather 4.0.3 Sandbox) ...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&REQUEST=GetCapabilities>

To get the Describe Feature Type (This request is used to obtain the schema of the specified feature-relation) ...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=DescribeFeatureType&TYPENAME=METAR>

Demos...

This example gets Geo Ref latest Airport and TAF & METAR from London Heathrow Airport (&ICAO=EGLL) if you just wanted Exeter Airport then use (&ICAO=EGTE)

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=LatestMETAR,LatestTAF&ICAO=EGLL>

This example gets Geo Ref latest Airport and TAFs & METARs from ALL UK Airports (&COUNTRY=EG) if you wanted All German Airports (&COUNTRY=ED)

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=LatestMETAR,LatestTAF&COUNTRY=EG>

If you just wanted the latest METARs from the link above then cut out LatestTAF...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=LatestMETAR&COUNTRY=EG>

If you wanted Bounding Box from a range of airports, then it would look like this over the UK (&BBOX=-5,47, 4,60)...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=LatestMETAR,LatestTAF&BBOX=-5,47,4,60>

(note data has to be on DB the time of this eg) A time range of METARs from 2017-04-18 to 2017-04-19 (&ISSUE=2017-04-18T00:00:00/2017-04-19T01:00:00) would be from UK & Germany (&COUNTRY=EG,ED)

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=METAR&COUNTRY=EG,ED&ISSUE=2017-04-18T00:00:00/2017-04-19T01:00:00>

IFR region selection for latest METARs and TAFs where ICAO of the FIR starts with letter L (&ICAO~=L*)

http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=LatestMETAR,LatestTAF&ICAO~=L*

Limiting the number of Features you want back to 10 METAR reports from EGLL (&MAXFEATURES=10)

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGLL&MAXFEATURES=10>

Also you can do thing like (&SORTBY) in this case sort by *wind* descending (+D) and *validity* from Exeter Airport with a max of five reports...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGTE&SORTBY=wind+D,validity&MAXFEATURES=5>

or just wind...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGTE&SORTBY=wind+D&MAXFEATURES=5>

or just temperature...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGTE&SORTBY=temperature&MAXFEATURES=5>

or just visibility...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGTE&SORTBY=visibility&MAXFEATURES=5>

or cloud base (*cloud*)...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGTE&SORTBY=cloud&MAXFEATURES=5>

or QNH at Aberdeen Dyce Airport...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGPD&SORTBY=cloud&MAXFEATURES=5>

RAF Colour Code + *validity* for RAF Lossiemouth & Coningsby...

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.1.0&REQUEST=GetFeature&TYPENAME=METAR&STATION=EGXC,EGQS&SORTBY=colour&MAXFEATURES=5>

RAFOR

As for the RAF RAFOR reports (UK military TAF variation) from as a Web Feature Service

<http://exvinnsandboxvw01:8008/OBSERVATIONS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=RAFOR>

It's filtering for stations that start with 'EGT*' and filtering _out_ the ones that have a 'CAVOK...

http://exvwxdev01:8008/MOMIDS?SERVICE=WFS&VERSION=1.0.0&REQUEST=GetFeature&TYPENAME=METAR&Filter=%3Cogc:Filter%20xmlns=%22http://www.opengis.net/ogc%22%3E%3CAnd%3E%3CPropertyIsLike%20wildCard=%22*%22%20singleChar=%22?%22%20escape=%22\\%22%3E%3CPropertyName%3EICAO%3C/PropertyName%3E%3CLiteral%3EEGT*%3C/Literal%3E%3C/PropertyIsLike%3E%3CNot%3E%3CPropertyIsLike%20wildCard=%22*%22%20singleChar=%22?%22%20escape=%22\\%22%3E%3CPropertyName%3EreportText%3C/PropertyName%3E%3CLiteral%3E*CAVOK*%3C/Literal%3E%3C/PropertyIsLike%3E%3C/Not%3E%3C/And%3E%3C/ogc:Filter%3E

From the **Filter=** of the URL above in a easier way to read...

```
<ogc:Filter xmlns="http://www.opengis.net/ogc">
  <And>
    <PropertyIsLike wildCard="*" singleChar="?" escape="\ ">
      <PropertyName>ICAO</PropertyName>
      <Literal>EGT*</Literal>
    </PropertyIsLike>
    <Not>
      <PropertyIsLike wildCard="*" singleChar="?" escape="\ ">
        <PropertyName>reportText</PropertyName>
        <Literal>* CAVOK*</Literal>
      </PropertyIsLike>
    </Not>
  </And>
</ogc:Filter>
```

In the GetCapabilities from the link below you'll find a range of filter operations to play with....

<http://exvinnсандbxvw01:8008/OBSERVATIONS?SERVICE=WFS&REQUEST=GetCapabilities>

...eg:

```
<ogc:ComparisonOperators>
```

```
  <ogc:ComparisonOperator>Like</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>NullCheck</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>LessThan</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>GreaterThan</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>LessThanEqualTo</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>GreaterThanEqualTo</ogc:ComparisonOperator
```

```
>
```

```
  <ogc:ComparisonOperator>EqualTo</ogc:ComparisonOperator>
```

```
  <ogc:ComparisonOperator>NotEqualTo</ogc:ComparisonOperator>
```

```
</ogc:ComparisonOperators>
```

There is a good GIS tutorial on WFS giving you ensamples (at the bottome of the page) you can play with here filtering in URL requests ...

http://mapserver.org/uk/ogc/filter_encoding.html