



Developing Applications with the
Weather XML Data Feed
Implementation Guide
Version 1.0

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2. Introduction

2.1. About the Weather XML Data Feed

The Weather XML Data Feed (the service) allows third-party applications to access a subset of the data available on the *weather.com*® Web site via an on-request XML feed. The Weather Channel Interactive, Inc. (TWCi) provides this data free of charge to developers who wish to incorporate weather information into a single application in exchange for links back to *weather.com*. This document describes the appropriate usage of the weather data and the technical details of requesting and using the XML data.

The weather data provided includes:

- City/state and zip code search for locations
- Location specific information (such as location name and time zone) necessary for data presentation
- Current conditions (observations) for the selected location
- Two-day forecast in 4 12-hour day parts

In return, your application must:

- Only display weather data for one location at a time
- Adhere to the data request rules, usage rules, and refresh rates outlined in Section 8 of this Guide
- Clearly separate TWCi data from data within a single visual element
- Identify that the weather data comes from TWCi and provide a link to the *weather.com* home page as set forth in Section 9 of this Guide
- Provide three promotional links back to *weather.com* for additional weather information as set forth in Section 9 of this Guide
- Be free of charge to your end users
- Have fewer than 25,000 active users in any given month

If you cannot meet these requirements but would still like to use weather data, other online affiliate services are available at:

<http://www.weather.com/services/oap.html>

2.2. Getting Access to the Weather XML Data Feed

In order to use this service, you must register on *weather.com* first and you must accept the terms of the End User License Agreement. The sign up process is available at:

<http://www.weather.com/services/oap.html>

At the end of the registration process you will receive an e-mail message containing your Partner ID, unique License Key, and download instructions for the Software Developers Kit (SDK). The Partner ID and License Key must be included as query parameters for all XML weather requests.

2.3. Types of Applications

The Weather XML Data Feed is available only for applications that can provide links back to *weather.com*. These applications are characterized as either Web-based applications or Desktop applications.

2.3.1. Web-based Applications

Web-based applications deliver HTML pages to Web browsers and must be capable of linking directly to *weather.com* through the links provided in the Weather XML Data Feed. A Web-based application would access the Weather XML Data Feed to retrieve weather data and would present that data in an HTML page the user would view in a browser such as Microsoft Internet Explorer or Netscape Navigator. Examples include applications running on a Web server written in JSP, PHP, ASP, or CGI.

2.3.2. Desktop Applications

Desktop applications are programs that run on a user's computer and present weather data to the user in windows, as icons in menu bars, or as shapes drawn directly on the desktop. Desktop applications must be capable of linking directly, or through the automatic launch of an external browser, to the *weather.com* home page from a *weather.com* logo and to the links provided in the Weather XML Data Feed by opening a new browser window. Examples include client applications written in C++, Java, Visual Basic, Delphi, or Objective C running on an Internet connected Windows, Macintosh, or Linux computer.

2.3.3. Other Applications

If you have an application that does not fall into the categories of Web-Based or Desktop, such as applications for PDAs, cell phones, kiosks, print, fax, broadcast television, or other platforms that cannot immediately or directly link back to *weather.com* or, if your usage expectations exceed those outlined above, you will need to determine what other licensing options may be available to you.

Generally, if your site or application (a) has 500,000 unique visitors or greater on a monthly basis, or (b) has over 100,000 unique visitors on a monthly basis and it can generate 25,000 referrals per month to *weather.com* through the links provided to you, and you are interested in additional weather content, please contact our Business Development Group via e-mail at busdevmanager2@talk2.weather.com to discuss a potential relationship.

3. Implementation Checklist

To implement the Weather XML Data Feed, you must:

- Register with TWCi at www.weather.com/services/oap.html to receive your Partner ID and License Key.
- Make your application comply with the definition of a Web-Based Application or Desktop Application as detailed in Section 2.3.
- Handle search requests correctly with none, one, and many results, resolving to one LocID or a “No Locations Found” message.
- Make all weather requests include a valid LocID, “par” query parameter, “prod” query parameter, and “key” query parameter.
- Correctly handle an Error document response.
- Display the desired weather data elements and the *weather.com* links in a single visual container that is clearly separated from other data.
- Do not mix TWCi weather data with other weather data in your application.
- Present TWCi’s weather data in its original form, without modification, translation, or derivative calculations.
- Only request and display the weather data within your application. Do not redistribute or retransmit weather data to other applications or platforms.
- Prominently display one of *The Weather Channel/weather.com* logos with the weather data. The logo must link to <http://www.weather.com> with the correct “prod” and “par” query parameters.
- Prominently display the three *weather.com* links with the weather data. They must have the correct “par” and “prod” query parameters.
- Adhere to the data caching requirements as detailed in Section 8.2.
- If applicable, your application must use the correct icon to represent the weather condition.
- Make your application free to download and use for end users.

4. Search

4.1. Request

XML Server's weather data must be requested for a specific location, so before your application can request weather data it must determine a Location ID. XML Server works with two types of LocIDs, Type 1 locations are city identifiers and Type 4 locations are postal codes.

Your application can use the search function to resolve a text string like “Atlanta” or “Atlanta, GA” to a LocID. All US Postal Codes are already valid LocIDs, so they do not require a search.

4.1.1. URLs

XML Server's search function is available at:

<http://xoap.weather.com/search/search>

A typical call would look like:

<http://xoap.weather.com/search/search?where=atlanta>

with the “where” parameter containing the search string.

4.1.2. Query Parameters

Query Parameter	Usage
where	URL encoded search string (“Atlanta”, “New York, NY”, “Paris, France”) REQUIRED VALUE = {Search String}

4.2. Response

The Search Response XML document contains all locations that match the search string, if any. An empty search document means that no locations matched the search string.

4.2.1. DTD

```
<?xml version='1.0' encoding='ISO-8859-1'?>

<!-- A search result. Use the id for all weather requests.
    type=""      integer location type
    id=""       text location identifier
-->
<!ELEMENT loc (#PCDATA)>
<!ATTLIST loc
    type CDATA #IMPLIED
    id CDATA #IMPLIED
```

```
>

<!-- A collection of search results matching your where criteria.
ver="" decimal XML format version
<loc> block of location information
-->
<!ELEMENT search (loc)*>
<!ATTLIST search
    ver CDATA #IMPLIED
>
```

4.2.2. Sample

The search request:

```
http://xoap.weather.com/search/search?where=atlanta
```

would return the following document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>
<!--This document is intended only for use by authorized licensees of The
Weather Channel. Unauthorized use is prohibited. Copyright 1995-2003, The
Weather Channel Interactive, Inc. All Rights Reserved.-->
<search ver="2.1">
    <loc id="USGA0028" type="1">Atlanta, GA</loc>
    <loc id="USGA0029" type="1">Atlanta/Fulton County Arpt, GA</loc>
    <loc id="USID0011" type="1">Atlanta, ID</loc>
    <loc id="USIL0057" type="1">Atlanta, IL</loc>
    <loc id="USIN0019" type="1">Atlanta, IN</loc>
    <loc id="USKS0030" type="1">Atlanta, KS</loc>
    <loc id="USLA0022" type="1">Atlanta, LA</loc>
    <loc id="USMI0036" type="1">Atlanta, MI</loc>
    <loc id="USMO0037" type="1">Atlanta, MO</loc>
    <loc id="USNE0027" type="1">Atlanta, NE</loc>
    <loc id="USNY0063" type="1">Atlanta, NY</loc>
    <loc id="USTX0055" type="1">Atlanta, TX</loc>
</search>
```

5. Weather

5.1. Request

XML Server returns one weather XML document that can have many weather data type blocks within it. Each data block is generated in response to a query parameter that indicates that the block should be included and specifies what time-span of data to return.

5.1.1. URLs

XML Server's weather function is available at:

```
http://xoap.weather.com/weather/local/[locid]
```

A typical example would be:

```
http://xoap.weather.com/weather/local/USGA0028?cc=*&prod=xoap&par=[partner_id]&key=[license_key]
```

this would return the current conditions for Atlanta, GA.

5.1.2. Query Parameters

Query Parameter	Usage
cc	Current Conditions OPTIONAL VALUE IGNORED
dayf	Multi-day forecast information for some or all forecast elements OPTIONAL VALUE = [1..10]
link	Links for weather.com pages OPTIONAL VALUE = xoap
par	Application developers Id assigned to you REQUIRED VALUE = {partner id}
prod	The XML Server product code REQUIRED VALUE = xoap
key	The license key assigned to you REQUIRED VALUE = {license key}
unit	Set of units. Standard or Metric OPTIONAL VALUES = [s m] DEFAULT = s

5.2. Response

The weather response document contains all of the requested data blocks and their contents. In addition, all weather documents contain a header block identifying the Units for all measurements in the document, a location block containing general information about the location.

5.2.1. DTD

The full weather.com XML DTD is available at:

<http://www.weather.com/documentation/xml/weather.dtd>

The DTD is self-documented and includes the meaning of all the XML element abbreviations.

A successful weather response will conform to this DTD, but the DTD also contains elements not covered by the license for this service.

5.2.2. Sample

The XML request:

[http://xoap.weather.com/weather/local/30066?cc=*&dayf=2&prod=xoap&par=\[partner_id\]&key=\[license_key\]](http://xoap.weather.com/weather/local/30066?cc=*&dayf=2&prod=xoap&par=[partner_id]&key=[license_key])

would return the following weather document:

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<!-- This document is intended only for use by authorized licensees of The
Weather Channel Interactive. Unauthorized use is prohibited. Copyright 1995-
2003, The Weather Channel Interactive, Inc. All Rights Reserved. -->

<weather ver="2.1">
  <!-- Document Header -->
  <head>
    <locale>en_US</locale>
    <form>MEDIUM</form>
    <ut>F</ut>
    <ud>mi</ud>
    <us>mph</us>
    <up>in</up>
    <ur>in</ur>
  </head>

  <!-- Location Information -->
  <loc id="30066">
    <dnam>Marietta, GA (30066)</dnam>
    <tm>10:40 AM</tm>
    <lat>34.04</lat>
    <lon>-84.51</lon>
    <sunr>7:02 AM</sunr>
    <suns>6:37 PM</suns>
```

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```
<zone>-5</zone>
</loc>

<!-- Current Conditions -->
<cc>
  <lsup>3/5/03 9:50 AM EST</lup>
  <obst>Kennesaw, GA</obst>
  <tmp>55</tmp>
  <flik>55</flik>
  <t>Haze</t>
  <icon>21</icon>
  <bar>
    <r>29.92</r>
    <d>rising</d>
  </bar>
  <wind>
    <s>3</s>
    <gust>N/A</gust>
    <d>220</d>
    <t>SW</t>
  </wind>
  <hmid>94</hmid>
  <vis>3.0</vis>
  <uv>
    <i>0</i>
    <t>Minimal</t>
  </uv>
  <dewp>60</dewp>
</cc>

<!-- Daily Forecast -->
<dayf>
  <lup>3/5/03 9:50 AM EST</lup>
  <day d="0" t="Wednesday" dt="Mar 5">
    <hi>64</hi>
    <low>54</low>
    <sunr>7:02 AM</sunr>
    <suns>6:37 PM</suns>
    <part p="d">
      <icon>26</icon>
      <t>Sprinkles</t>
      <wind>
        <s>10</s>
        <gust>N/A</gust>
        <d>0</d>
        <t>W</t>
      </wind>
      <ppcp>20</ppcp>
      <hmid>77</hmid>
    </part>
    <part p="n">
      <icon>47</icon>
      <t>Scattered T-Storms</t>
      <wind>
        <s>13</s>
        <d>0</d>
        <t>SW</t>
      </wind>
    </part>
  </day>
</dayf>
```

```

        </wind>
        <ppcp>60</ppcp>
        <hmid>77</hmid>
    </part>
</day>
<day d="1" t="Thursday" dt="Mar 6">
    <hi>61</hi>
    <low>42</low>
    <sunr>7:01 AM</sunr>
    <suns>6:38 PM</suns>
    <part p="d">
        <icon>12</icon>
        <t>AM Rain</t>
        <wind>
            <s>14</s>
            <gust>N/A</gust>
            <d>0</d>
            <t>WNW</t>
        </wind>
        <ppcp>80</ppcp>
        <hmid>77</hmid>
    </part>
    <part p="n">
        <icon>29</icon>
        <t>Partly Cloudy</t>
        <wind>
            <s>7</s>
            <d>0</d>
            <t>NNW</t>
        </wind>
        <ppcp>0</ppcp>
        <hmid>77</hmid>
    </part>
</day>
</dayf>
<lnks type="prmo">
    <link pos="1">
        <l>http://www.weather.com/weather/local/30066?prod=xoap</l>
        <t>Local 10 Day Forecast</t>
    </link>
    <link pos="2">
        <l>
            http://www.weather.com/outlook/health/allergies/weather/tenday/30066?prod=xoa
            p</l>
        <t>Local Pollen Outlook</t>
    </link>
    <link pos="3">
        <l>http://www.weather.com/activities/recreation/golf/?prod=xoap</l>
        <t>Local Golf Courses</t>
    </link>
</lnks>
</weather>

```

6. Error

6.1. Response

If XML Server encounters an internal error, it will return an Error document describing the error. The Error document contains all errors that XML Server encountered. The basic errors are:

Error Type	Error Text
0	An Unknown Error has occurred
1	No Location Provided
2	Invalid Location Provided
100	Invalid Partner Id
101	Invalid Product Code
102	Invalid License Key

Additional errors can be generated by XML Server however, those functions are not covered in this document. Those errors are not likely to be encountered when using this service.

6.1.1. DTD

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<!ELEMENT err (#PCDATA)>
<!ATTLIST err
      type CDATA #IMPLIED
      >

<!ELEMENT error (err)*>
```

6.1.2. Sample

```
<?xml version="1.0" encoding="ISO-8859-1"?>

<!-- This document is intended only for use by authorized licensees of The
Weather Channel Interactive. Unauthorized use is prohibited. Copyright 1995-
2003, The Weather Channel Interactive, Inc. All Rights Reserved. -->

<error>
  <err type="1">No location provided</err>
</error>
```

7. Resources

The Weather XML Data Feed Software Developers Kit (SDK) includes logo and icon graphics for you to use in your application. You must not modify the graphics in any way, except to convert them to a file format suitable for your application.

7.1. Logos

You may use either of the images in the “logos” directory in accordance with Section 9 of this Guide and the *weather.com* logo usage guide attached as Appendix A. The logos must link directly to the *weather.com* home page.

The logos are provided in two sizes:

- 32 x 43 PNG with transparent background
- 64 x 86 PNG with transparent background

The logo should link to:

```
http://www.weather.com/?prod=xoap&par=[partner_id]
```

7.2. Icons

You may use any of the images in the “icons” directory to display a graphic representation of the current or forecast weather conditions. The integer value in the <icon> element of <cc> and <part> indicate which icon to display for current conditions and day-part forecasts. The icons must not be presented as links.

The icons are provided in three sizes:

- 32 x 32 PNG with transparent background
- 64 x 64 PNG with transparent background
- 128 x 128 PNG with transparent background

8. Business Rules

Your application must adhere to the business rules of TWCi's data.

8.1. Search

Your application must use the Search functionality to resolve a location name to a LocID only when users change their target location. The LocID value must be stored as a user preference by the application and used for all weather requests.

8.2. Refresh Rates

8.2.1. Web-based Applications

Web-based applications must cache all XML weather data for a given location (based on LocID) in memory for the following lengths of time:

Data Block	Caching Requirements
loc	12 hours
cc	30 minutes
dayf	2 hours
lnks	12 hours

Your application may have a reasonable maximum number of cached data elements and may purge cached elements as necessary to stay within the cache size.

8.2.2. Desktop Applications

Desktop applications must not call the server URLs any more frequently than:

URL	Data Returned	Refresh Rate
.../weather/local/[loc_id]	Head, Loc	15 minutes
.../weather/local/[loc_id]?cc=*	Head, Loc, CC	30 minutes
.../weather/local/[loc_id]?cc=*&dayf=2	Head, Loc, CC, Forecast	2 hours
.../weather/local/[loc_id]?cc=*&dayf=2&link=xoap	Head, Loc, CC, Forecast, Links	12 hours

NOTE: The "par", "prod", and "key" parameters must also be appended to the weather request URL.

8.3. Header Data

The data in the <head> data block provides all of the unit identifiers for data elements elsewhere in the document. Your application must indicate, either globally or with element of data, what unit the value is measured in.

8.4. Location Data

The data in the <loc> data block provides information about the location for which weather data is being presented. Your application must present the Display Name (<dnam>) of the location to the user.

8.5. Current Conditions

Your application must, at a minimum, display the current temperature (<tmp>) and sky condition icon (<icon>). All Current Condition data elements must be visually grouped together and displayed separately from Forecast data.

8.6. Forecasts

Forecasts are presented in Days and Day-parts within the <dayf> data block. The current day is listed as day number 0 and the next day is listed as day number 1. Each Day has a “day” Day-part covering from 7 a.m. to 7 p.m. and a “night” Day-part covering from 7 p.m. to 7 a.m. Each Day’s high temperature is associated with the “day” Day-part and the low temperature is associated with the “night” Day-part.

Today		Tomorrow	
Day 0		Day 1	
“day” Day-part	“night” Day-part	“day” Day-part	“night” Day-part
High	Low	High	Low
Today	Tonight	Tomorrow	Tomorrow Night

Because of the way in which TWCi generates its forecasts, the current Day’s “day” Day-part is only valid up until 2 p.m. in the local time of the location. After 2 p.m., there is no Day 0 “day” Day-part forecast or Day 0 high temperature. Your application must either present N/A for Day 0 “day” Day-part values or not show them at all.

One example would be:

Before 2 PM Local Time:

- Display Day 0 “day” Day-part as “Today”
- Display Day 0 “night” Day-part as “Tonight”

After 2 PM Local Time:

- Display Day 0 “night” Day-part as “Tonight”
- Display Day 1 “day” Day-part as “Tomorrow”

A location’s local time is in the <head> element of the weather document.

9. Linking and Attribution

9.1. Links

Your application must include the links provided to you in the XML Data Feed. The links must be presented in the same visual manner and size as the other links on the page or in the same visual element. All three links should be presented together, either horizontally or vertically, under a heading of:

Featured on *weather.com*[®]:

The link text for each link will be less than 25 characters. You must append the “&par=[partner_id]” query parameter to the end of each of the URLs that are provided to you in the XML Data Feed. The correct LocID and the “&prod=xoap” query parameter will already be present in the URL.

9.2. Attribution

Your application must include text attribution and a logo that attributes the weather data to TWCi and links users directly to the *weather.com* Web site. The attribution must appear on the same page or within the same visual element as the weather data and must be displayed in accordance with the TWCi Style Guide which is included in the SDK. The text attribution must appear as follows:

Weather data provided by *weather.com*[®]

Both the logo and the “weather.com” text should link to:

`http://www.weather.com/?prod=xoap&par=[your partner id]`

weather.com® Logo Usage Guide

weather.com®, The Weather Channel® and The Weather Channel logo in the blue box are United States federally registered servicemarks of The Weather Channel, Inc., and should be protected as such at all times. The registered trademark symbol ® must be included and **weather.com** must always be used in conjunction with The Weather Channel logo, across all platforms. [EXAMPLE 1]

The registered trademark symbol

® must appear on the first and most prominent appearance of The Weather Channel name and **weather.com** name in each print piece, and is used when referencing the trademark name, not when referencing the company name.

Use of The Weather Channel and weather.com marks

The **weather.com** name should always appear in lowercase, this includes the beginning of a sentence. When using **weather.com** in copy, the use of bold text is preferred. It is recommended not to include www. when using the **weather.com** name. [EXAMPLE 2]

Additionally, both names should appear in italics or bold every time they are used. The Weather Channel name is protected in its entirety, including the word "The." The **weather.com** name is protected in its entirety as well.

[EXAMPLE 3]

The possessive form of The Weather Channel or **weather.com** should never be used in advertising or editorial. [EXAMPLE 4]

The registered trademark symbol ® must appear on the first and most prominent appearance of "TWC". In trade ads and collateral materials, "TWC" may be used only after The Weather Channel name has been clearly established. [EXAMPLE 5]

The typeface

The **weather.com** font is Berthold Akzidenz Grotesk Medium Extended.

The color

- PMS 2935
- 4-color process: 100% C, 50% M, 0% Y, 0% K
- Bin Hex: 0056C2
- Web safe rgb values: 0R, 102G, 204B

The Weather Channel logo should never appear in black and white, unless the entire piece is produced in black and white or if a full color background creates a legibility issue.

EXAMPLES

[1]



[2]

The Weather Channel® [CORRECT]

the Weather Channel®
[INCORRECT]

Weather Channel
[INCORRECT]

weather.com®
[CORRECT]

www.weather.com
[INCORRECT]

[3] Life's unpredictable. Thankfully, The Weather Channel® and **weather.com**® make the weather less so. **The Weather Channel...**
[CORRECT]

Life's unpredictable. Thankfully, The Weather Channel and **weather.com** make the weather less so. The Weather Channel...
[INCORRECT]

[4]

"Meteorologists at **The Weather Channel** and **weather.com**..."
[CORRECT]

"**The Weather Channel**'s meteorologists..." or "**weather.com**'s meteorologists"
[INCORRECT]

[5]

TWC®
[CORRECT]

TWC
[INCORRECT]

Logo Usage

The logo must be used in its entirety. Never pull the logo apart into separate elements, change its upright orientation or distort its shape. **The Weather Channel** logo should never be reversed out. [EXAMPLE 6]

The field should always appear in blue, with white type and border. In most applications, the logo should not require any additional definition to distinguish it from a background. However, with overly bright or complex backgrounds, an even shadow surrounding the perimeter of the logo is acceptable. [EXAMPLE 7]

Placement and size of **The Weather Channel** logo plays an important role in quick recognition. Whenever possible, the logo should appear in the lower right or lower center of the design space. **weather.com** must be legible at all times.

Never place the logo within a container or shape. [EXAMPLE 8]

Co-branding is usually a joint promotion effort by two brands that share equal ownership in a product or event. For co-branding, **The Weather Channel** logo should always have an equal visual impact to the partner(s) logo. For co-promotions which do not include equal partnership, logo proportions need to be established according to the terms of the participation agreement. These guidelines should be followed to maintain the integrity and visibility of **The Weather Channel** trademark. [EXAMPLE 9]

A safety zone is an area which no graphic elements or copy resides, thereby ensuring strong visibility. The proper safety zone for all sides of **The Weather Channel** logo is 25% of the logo width and height. Never place a partner logo, or any other graphic image or element, within the safety zone. [EXAMPLE 10]

EXAMPLES

[6]



CORRECT



INCORRECT

[7]



CORRECT
Using drop shadow



CORRECT
No drop shadow

[8]



INCORRECT



INCORRECT

[9]



CORRECT



INCORRECT

[10]

