Product Document Description:
NWS Current Observations Using RSS and XML Based Formats

5/7/2004

Part I - Mission Connection

Product Description - Provide current observations in two Internet based formats. Each format provides a channel for users to quickly access specific products. Products are organized by ASOS station ID. Two data exchange formats using Extensible Markup Language (XML) are provided for customers and partners who wish either display selected parts of the products or provide a display of the products to other customers.

The product homepage can be accessed at: http://weather.gov/data/current_obs/

Purpose - NWS regularly receives requests to make NWS data available in either Really Simple Syndication (RSS) or other XML based feeds. To increase availability of ASOS observations in a computer format allows computer programmers to easily incorporate the data in their products, web pages and wireless devices.

These XML files are updated every hour.

This product is considered "experimental" by the NWS. The purpose of an experimental product is to obtain user feedback on new product. At the end of a fixed period, an evaluation is made to determine whether the product is useful enough to users to warrant the commitment of NWS resources to provide it permanently. In order to make this decision, user comments and input are solicited during the experimental period. This user input helps the NWS determine whether to continue the provision of the product and if so, it identifies changes that could be made to better serve user needs.

The experimental period for this prototype will be from June 1 through July 1, 2004. Because the product is experimental, NWS does not guarantee it will be continuously available throughout this period. However, every effort will be made to assure reliable provision of this service, in particular during times when storms affect the prototype area.

Audience - The intended audience are individuals who use RSS readers, web and other application developers who want machine friendly access to current observation data.

Presentation Format - This data is presented in two formats:

XML: This is a XML based data format that is primarily targeted for machine to machine transfer. The XML files contain the entire contents of a METAR. There is one XML file for each observation station.

RSS: Sometimes referred to as Really Simple Syndication, the XML based RSS format

is designed to allow syndication of news related headlines, with a hyperlink to the complete document. There is one RSS file for each observation station.

Feedback Method - The NWS seeks to improve its services based on user feedback. A comment form is provided on the homepage for this product:

http://www.nws.noaa.gov/data/current_obs/

Comments regarding this product can also be sent to:

National Weather Service
Attn: Robert Bunge, W/OCIO
1325 East-West Highway #13460
Silver Spring, MD 20901

Or via e-mail to: robert.bunge@noaa.gov
Or via a feedback link located at http://www.nws.noaa.gov/alerts/

Part II - Technical Description

Format & Science Basis - Two sets of files are generated every hour for each observation station:

XML: These files contain decoded METAR observations.

Example of a single product in XML format:


```
<current_observation>
<credit>NOAA's National Weather Service</credit>
<credit_URL>http://weather.gov/</credit_URL>
-
        <image>
<url>http://weather.gov/images/xml_logo.gif</url>
<title>NOAA's National Weather Service</title>
<link>http://weather.gov</link>
</image>
<suggested_pickup>15 minutes after the hour</suggested_pickup>
<suggested_pickup_period>60</suggested_pickup_period>
<location>Davis-Monthan AFB, AZ</location>
<station_id>KDMA</station_id>
<lat>NA</lat>
<long>NA</long>
<elevation>NA</elevation>
<observation_time>Last Updated on May 7, 11:55 am MST</observation_time>
<weather>A Few Clouds</weather>
<temperature_string>91 F (33 C)</temperature_string>
<temp_f>91</temp_f>
<temp_c>33</temp_c>
<relative_humidity>8</relative_humidity>
<wind_string>From the Variable at 7 MPH</wind_string>
<wind_dir>Variable</wind_dir>
<wind_mph>6.9</wind_mph>
<pressure_string>30.05" (1013.3 mb)</pressure_string>
<pressure_mb>1013.3</pressure_mb>
<pressure_in>30.05</pressure_in>
<dewpoint_string>23 F (-5 C)</dewpoint_string>
<dewpoint_f>23</dewpoint_f>
<dewpoint_c>-5</dewpoint_c>
<heat_index_string>87 F (31 C)</heat_index_string>
<heat_index_f>87</heat_index_f>
<heat_index_c>31</heat_index_c>
<windchill_string>Not Applicable</windchill_string>
<windchill_f>Not Applicable</windchill_f>
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<windchill_c>Not Applicable</windchill_c>
<visiblity>50.00 mi.</visiblity>
<two_day_history_url>http://www.weather.gov/data/obhistory/KDMA.html</two_day_history_u
rl>
<ob_url>http://www.nws.noaa.gov/data/METAR/KDMA.1.txt</ob_url>
<disclaimer_url>http://weather.gov/disclaimer.html</disclaimer_url>
<copyright_url>http://weather.gov/disclaimer.html</copyright_url>
<privacy_policy_url>http://weather.gov/notice.html</privacy_policy_url>
</current_observation>

RSS: Sometimes referred to as Really Simple Syndication. These files contain a human readable subset of the METAR data.

Example of a single product in RSS format:

<rss version="2.0">
<channel>
<title>Weather at Davis-Monthan AFB, AZ - via NOAA's National Weather Service
</title>
<link> http://www.nws.noaa.gov/data/current_obs/</link>
<lastBuildDate>Last Updated on May 7, 11:55 am MST</lastBuildDate>
<ttl>60</ttl>
<language>en-us</language>
<managingEditor>robert.bunge@noaa.gov</managingEditor>
<webMaster>w-nws.webmaster@noaa.gov</webMaster>
<image>
<url>http://weather.gov/images/xml_logo.gif</url>
<title>NOAA - National Weather Service</title>
<link>http://weather.gov</link>
</image>
<item>
<title>A Few Clouds and 91 degrees F at Davis-Monthan AFB, AZ
</title>
<link>http://www.nws.noaa.gov/ </link>
<description> Winds are Variable at 7 MPH. The pressure is 30.05" (1013.3 mb) and the humidity is 8%.
The heat index is 87.
Last Updated on May 7, 11:55 am MST.
</description>
</item>
</channel>
</rss>

These files are currently posted using RSS 2.0. Additional information on RSS is available from:

http://blogs.law.harvard.edu/tech/rss