

Igniting LiquiFire, Number 3:
Real-Time XML Data Integration

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Overview

LiquiFire can be used to retrieve data from a remote data-source (such as XML data obtained from a Web server) and incorporate it into the image content of an E-mail.

In this case, the message includes an eye-catching “clip” of the actual loan rate in effect *at the time the mail was read or opened*.

Real-Time Data, Not a Guess

Interest rates change hourly; this communication was particularly sensitive to rate fluctuations since it was an initial interest rate for an unsecured loan. The sender wanted to call attention to the rate while providing an accurate rate that would be valid if the user responded at the time of read.

E-mail with rich content, such as images, contains only links to the image content, not the content itself. When the E-mail is viewed by the recipient, the E-mail reader then connects to one or more servers to acquire and display the image content. This behavior — to connect and acquire all imagery **at read-time** — presents a powerful opportunity when combined with Dynamic Imaging. When the recipient reads the message, causing the E-mail reader to acquire the images, LiquiFire can create at that instant, an image containing content salient to the individual user **at that exact time**. This individualized content can be further based on data LiquiFire has available, such as current interest rate information, customer’s buying habits, business rules, etc.

Comparable Examples

Using XML Links to Retrieve Data

LiquiFire can use Industry-standard XML queries to find and retrieve data to “complete” portions of communications or Web pages which are not available at the time of the send — this includes time-sensitive material and data provided from third parties.

Using XML frees the designer to concentrate on the overall design of their communication, with the knowledge that the appropriate data will be retrieved and inserted when needed. And, because LiquiFire is acquiring the data per the sender’s instructions, “fail-safes” are easily incorporated, in case the data is no longer available from the target or has changed.

Are your images fluid?™

Assets needed

Background Image

The basis for this image will be a static background image, created by a designer and stored on any convenient Web server.

XML Data

An XML data feed, accessible via a Web server will provide the current interest rate data for this campaign. Data is updated once per minute.

A sample of the data available at <http://www.liquidpixels.com/images/ignitingLiquifire/interest.asp> as used in this example is:

```
<rates>
  <rate>
    <class>mortgage</class>
    <length>30</length>
    <type>fixed</type>
    <value>6.76</value>
  </rate>
  <rate>
    <class>mortgage</class>
    <length>15</length>
    <type>fixed</type>
    <value>7.65</value>
  </rate>
  <rate>
    <class>auto</class>
    <length>5</length>
    <type>fixed</type>
    <value>8.25</value>
  </rate>
</rates>
```

Appropriate Typeface

Since LiquiFire will be drawing additional text over the designer's background image, the LiquiFire server needs access to the fonts used. The fonts can be loaded onto a LiquiFire server, or more commonly, read by LiquiFire from another Web server when needed.

Dynamic Imaging Goal

Graphical Text

LiquiFire will render the appropriate information in the desired font, the desired color, and with the desired effects from a dynamic data feed. LiquiFire will locate the appropriate source for the information, parse it to extract the needed data, and format it for inclusion in the communication.

Create image chain

Annotated view of LiquiFire image chain

To start, we acquire the background image from the specified URL using the `source` command.

```
source=url [http://www.liquidpixels.com/images/ignitingLiquifire/
mortgage.png]
```

Now we need to acquire the values we need from the XML data feed. The feed is available from <http://www.liquidpixels.com/images/ignitingLiquifire/interest.asp> and presents constantly changing interest rate information for several loan types.

The `xmllacquire` command is quite magical. It allows you to specify individual elements of an XML tree using XPath specifications¹. In this example, we want to get the data from the `value` element from the XML node where the class is `'mortgage'` and the length is `'15'`. LiquiFire will acquire the XML data from the URL specified, parse it according to the XPath, and place the value it finds into the variable `'rate'`. The `nocache` attribute to the `xmllacquire` command tells LiquiFire not to cache the XML data.

```
xmllacquire=url [http://www.liquidpixels.com/images/ignitingLiquifire/
interest.asp], xpath[//rate[class="mortgage" and length="30"]/value],
name [rate], nocache [true]
```

Now we simply draw some text on top of the background image, where the string we draw will be the rate information we obtained via the `xmllacquire` command, located in the `rate` variable.

```
annotate=font [Myriad-BoldCondensed], fontsize [40], text [global.rate%],
rotate [3], alignto [bottomCenter], x [740], y [130]
```

We're done! The `sink` command tells LiquiFire that processing is complete.

```
sink
```

Result



1. Additional information regarding XPath, as well as the complete XPath specification may be found at <http://www.w3.org/TR/xpath>.

About LiquidPixels

Founded in 2000, LiquidPixels, Inc. provides LiquiFire® — the premier middleware solution for enterprise dynamic imaging.

LiquiFire products yield greatly reduced costs, streamlined workflows, and easy integration while significantly enhancing online environments, increasing the likelihood of purchase, and uniquely fulfilling the one-to-one promise of the Internet. The patent-pending LiquiFire suite of solutions is available both as enterprise servers and as a hosted service.

A privately held company, LiquidPixels operates facilities in Rochester, NY and Boston, MA. For more information, visit www.liquidpixels.com, call 866.808.4937, or write to info@liquidpixels.com.