Mashups

Much of the popularization of Mashups in recent years can be attributed to the increased availability of public application programming interfaces (API’s) and the increased use of XML specified file formats to create data sources such as web feeds.

Definitions

**Mashup**: a web application that aggregates content from more than one source into a single integrated tool.

**Application Programming Interface (API)**: a defined inter-program interface. This interface allows features of one program or service to be integrated into another program or service. Public APIs are simply APIs that are made available to the general public.

**Web feed**: a method of delivering frequently updated data to the user in a standardized format. This data can then be loaded and displayed or parsed by another application for presentation to the user.

**Really Simple Syndication (RSS)**: a family of the most popular formats used by web feeds. RSS is an XML specified format.

**Extensible Markup Language (XML)**: a general markup language whose primary purpose is to share structured data between information systems across the Internet.

Two general types of mashups:

1) **Data mashups** – combine data from multiple sources to produce a single data source for use by another application.

*Example*: [http://pipes.yahoo.com](http://pipes.yahoo.com)

Yahoo’s new *Pipes* application is a great example of a data mashup and allows the users to create a mashup of their own using a simple drag-and-drop method. Users can pick multiple data sources including websites, web feeds, and other web services to create an aggregated data source. The data can then be filtered using a variety of techniques.

In my example we will be combining multiple web feeds to create a new, personalized web feed. To understand how the feeds are combined, we will look at the XML code that makes up an RSS feed.
2) **Consumer mashups** – take data from multiple sources and combine them under a single unified graphical interface.

*Example: [http://www.trulia.com](http://www.trulia.com)*

Trulia allows users to search for real estate in a specified area. Instead of just listing addresses like a traditional real estate website, Trulia has used the Google Maps API to combine the Google Maps service with the addresses and property information residing in the Trulia database. This provides users with an interactive visual representation of the search results. Users see icons representing different properties on the map and by clicking an icon, they get more information about the property.

To better understand the concept of a mashup, we will take a look at the two individual services that are combined by Trulia: Google Maps ([http://maps.google.com](http://maps.google.com)) and a traditional real estate website ([http://www.prudentialproperties.com](http://www.prudentialproperties.com)). The Google Maps API was demonstrated at *Google Developer Day 2007* by Doug Ricket, a Google software engineer. We will also take a quick look at his demo website if time permits, which is located at [http://doug.ricket.com/gdd2007](http://doug.ricket.com/gdd2007).