

A really simple intro to XML

What is XML and how is it useful?

XML (Xtensible Markup Language) is a programming language used to share information or data. It is a widely accepted way of sharing information over the Internet in a way that computers can use, regardless of their operating system or application.

Basically XML allows you to structure the information you wish to use and then you make tools that read and use that information. Look at this example below of a kennel with two dogs in it.

```
<?xml version="1.0" encoding="utf-8"?>
<Kennel>

  <dog>
    <name "Rover"/>
    <color eyes = "blue" fur = "black"/>
    <image "roverPicture.png"/>
    <owner "Mr Jones"/>
  </dog>

  <dog>
    <name "Woofie"/>
    <color eyes = "Greeny yellow" fur = "ginger"/>
    <image "woofiePicture.png"/>
    <owner "Ms Park"/>
  </dog>

</Kennel>
```

In the example you can ignore the first line, it is just telling the computer that this is an XML file, the top line will always be the same so you can ignore it. The second line <Kennel> creates the kennel and if you look at the bottom line it says </Kennel> this closes the kennel. So anything between these 'tags' is in the kennel. The Kennel is known as an element and because it is the main element (ie it is created first) it is called the root element. Inside the kennel are two 'dogs'. <dog> creates the dog element and </dog> closes it. Everything inside the <dog> tags are elements of the dog. So the first dogs name is Rover, Rover has blue eyes and black fur and is owned by Mr Jones. The second dog is Woofie who has greeny yellow eyes etc etc. If I wanted to create a new dog I would just have to copy one of the <dog> elements and paste it, then I can change the information the name etc and hey presto a new dog. So Kennel is an element and inside that element there are two dog elements

and inside each dog element there are four elements that describe the dog, it's eye colour etc. So those are elements and inside elements there are attributes. An attribute of the <name> attribute is "woofie", which could be anything but because it is inside the <name> element it is the dogs name. If you look at the example you will see that inside 'color' has two attributes eyes and fur. Inside an element you have attributes and you can have more than one attribute, but if you do you need the equals sign.

```
<?xml version="1.0" encoding="utf-8"?>
<nodes>

  <node>
    <point lng = "-0.0380" lat = "51.4729"/>
    <icon image = "globe.png" class = "local"/>
    <info swf = "flashExp1.swf" width = "200" height="200"/>
  </node>

  <node>
    <point lng = "-0.0366" lat = "51.4734"/>
    <icon image = "gore.png" class = "local"/>
    <info swf = "flashExp3.swf" width = "400" height = "100"/>
  </node>

  <node>
    <point lng = "-0.0351" lat = "51.4745"/>
    <icon image = "bush.png" class = "local"/>
    <info swf = "flashExp2.swf" width = "360" height = "288"/>
  </node>

</nodes>
```

The above code is the actual XML code that you will use to create your map points which I call 'nodes'. You can see that we have three 'nodes' and inside each node element we have three elements that describe the node.

<point> has two attributes the lng (longitude) and lat (latitude)

<icon> has two attributes the only one you need to change is the 'image' attribute. This is the image icon that will appear on the map.

<info> has three attributes 'swf' which is the name of the flash file that will open when the node is clicked on the map. The 'width' and 'height' attributes tell the computer the dimensions of the flash file when it opens.

There could be more attributes we could add to the node to send more information, a name for the node or maybe a link to an mp3 or web address , or well pretty much anything. That is the power of XML you can change it to suit your needs allowing you to do more easily.