

Zoo Finder Development Documentation

Geocoding locations component

The component used to geocode the location of a zoo and display its position on a Google Map was a Yahoo pipe component. Its purpose is to display the positions of all the zoos in the xml file or just one depending on what input is specified using a filter to get the results required. It takes the xml file as its data feed then a filter is applied that takes a user input, or in this case the input is specified using the xsl file. The input that is filtered is a postcode so only XML entries with the same postcode element as the input are permitted to pass through the filter. Once the filter has been applied all entries that pass through are then put through a loop which contains a location builder component, this takes the postcode attribute from each entry and uses this data to geocode the longitude and latitude coordinates each zoo. This data is then assigned to a new attribute called location.

Once this data has been processed it is then passed through a rename operator component to rename the location.lat and location.lon to geo.lat and geo.long. This is done so it can be passed to a location extractor component that can process the data and plot the positions on a Google Map. It also uses the rename component to change the name attribute from the xml to title to make the output of the pipe show the name of the zoo in the maps pop up dialog box.

Once the rename has been performed a loop operator with a source input from the site flickr is used to find one image that matched the name of the zoo that had passed through the filter. The link to this image was then assigned to a new attribute called image.

Finally another loop with a string builder component is used to combine the XML address elements together and insert the image link within tags for each entry. This output was then assigned to "description" which will be used by the pipe in the pop text dialog box on the map when the pipe is output as a KML.

News component

<http://www.oomphmedia.co.uk/zoo/zoo190.xsl>

The News component works by using the XSL file to create a link to the BBC news site and takes the value of zoo name from the XML file, this is then used as the input value to be searched on the site. A mash up RSS feed was created using the yahoo pipes interface to take a feed from the BBC, Yahoo and a few other RSS feeds. This proved not to be the best idea as most of the time the output from the pipe was Null as the feeds did not contain any news about the zoos, so the method of using the XSL to search the BBC news archives was implemented instead.

XSLT transformation

<http://www.oomphmedia.co.uk/zoo/zoo190.xsl>

The XSL file is used to extract and transform data from the xml file and other components used for our site into a webpage that displays the data in a format that is of legible to the user. It takes input from the xml file and can call or display the values from the xml file anywhere within the XSL, once it is transformed these values will be output onto the webpage.

A search bar was created so the user can input a value and it will filter out the zoo's they want to find, the search was coded to search either by zoo name or by the first case of the a zoo name. Once we have filtered out what data we want to display we can begin to process it.

For each zoo entry that passes through the search filter the output data from the search is then displayed, displaying attributes like name and address of the zoo. For other elements like website addresses for the Zoo's we used the value of the url XML entry and made the value into a link.

The XSL file is used to create links to the yahoo pipes created by getting the URL to the pipes and editing them so the input value that is to be passed to the filter in the pipe can be replaced by the correct xml value for that zoo entry. For example the input value for the geocoding locations pipe is the postcode so this can be replaced with the correct postcode value for the zoo we want to display and the pipe will only permit that entry to be displayed. Once all the data is extracted and transformed it is then styled by the CSS file.