

# Test Document XML – FEEDS

*october 2016*

**TIMES**  **MALTA** *Credibility matters*

## ÍNDICE

<b>1</b>	<b>VERSION CONTROL .....</b>	<b>4</b>
<b>2</b>	<b>DOCUMENT PURPOSE .....</b>	<b>4</b>
<b>3</b>	<b>SETUP.....</b>	<b>4</b>
<b>4</b>	<b>FEATURES.....</b>	<b>6</b>
4.1	FEEDS .....	6
4.2	LIST OF VACANCIES OF A CHANNEL.....	6
4.2.1	<i>Cache .....</i>	9
4.3	CATEGORIES OF ALL FEEDS.....	10
4.3.1	<i>Vacancies by category.....</i>	10
<b>5</b>	<b>FUTURE IMPROVEMENTS .....</b>	<b>12</b>
<b>6</b>	<b>QUESTIONS OF THE TEST .....</b>	<b>13</b>
6.1	JOB ITEMS ACROSS FEEDS ARE SLIGHTLY DIFFERENT. HOW WOULD YOU NORMALIZE ITEMS? .....	13
6.2	HOW WOULD YOU CACHE FEED? .....	13
6.3	HOW WOULD YOU CACHE RESULTS? PSR-6 .....	13
6.4	WHAT TO DO WITH FUNCTION LOADFEED()? .....	13
6.5	WHY ELEMENT CHANNEL WAS ADDED IN GET.PHP? (LINE 50) .....	13
<b>7</b>	<b>ISSUES .....</b>	<b>14</b>



## 1 Version control

Autor	Versión	Fecha	Descripción
Rodrigo Isidro	01r00	22/10/2016	First Version

## 2 Document purpose

This document has the purpose of documenting the changes of the Xml platform of Times Malta. It will be explained the setup process of the application and the changes developed in the test.

Furthermore it will be commented the future improvements that must be done in the platform.

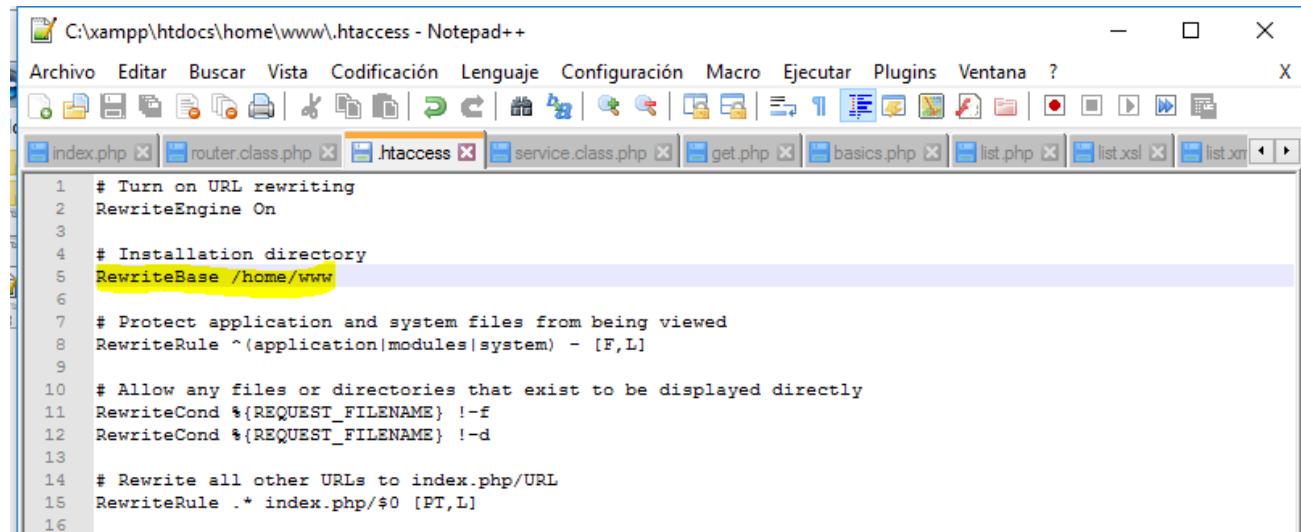
## 3 Setup

In this section it will be explained the setup process of the platform. The structure of the original platform has the following list of folders:

Nombre	Tamaño	Tipo	Modificación	Attr
core		Archivo carpeta	jueves 8:47	-----
document		Archivo carpeta	Hoy 7:03	-----
services		Archivo carpeta	jueves 8:47	-----
tmp		Archivo carpeta	Ayer 17:50	-----
www		Archivo carpeta	Ayer 16:55	-----
.gitattributes	346 bytes	Archivo	jueves 8:47	-----
.gitignore	976 bytes	Archivo	jueves 8:47	-----
.xml	2 bytes	Archivo	Ayer 16:51	-a----
konnект.xml	198 KB	Documento XML	Ayer 16:54	-a----

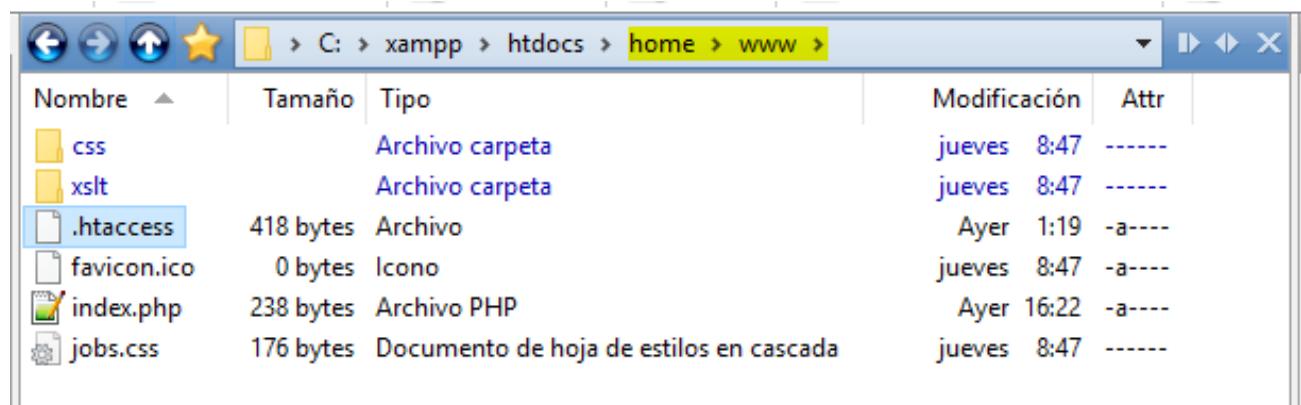
The web interface is contained in the "www" folder. This level must be copied below the root in a Production environment. You have to change de .htaccess for the URL variables will be available and working on.

If the root directory of the server is not the setup folder you have to specify the path in the .htaccess file:



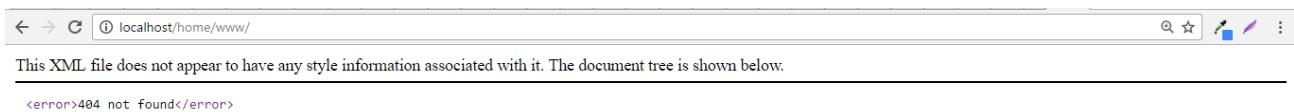
```
C:\xampp\htdocs\home\www\.htaccess - Notepad++
Archivo Editar Buscar Vista Codificación Lenguaje Configuración Macro Ejecutar Plugins Ventana ?
index.php router.class.php .htaccess service.class.php get.php basics.php list.php list.xls list.xml
1 # Turn on URL rewriting
2 RewriteEngine On
3
4 # Installation directory
5 RewriteBase /home/www
6
7 # Protect application and system files from being viewed
8 RewriteRule ^/(application|modules|system) - [F,L]
9
10 # Allow any files or directories that exist to be displayed directly
11 RewriteCond %{REQUEST_FILENAME} !-f
12 RewriteCond %{REQUEST_FILENAME} !-d
13
14 # Rewrite all other URLs to index.php/URL
15 RewriteRule .* index.php/$0 [PT,L]
16
```

In our Windows Xampp environment:



Nombre	Tamaño	Tipo	Modificación	Attr
css		Archivo carpeta	jueves 8:47	-----
xslt		Archivo carpeta	jueves 8:47	-----
.htaccess	418 bytes	Archivo	Ayer 1:19	-a----
favicon.ico	0 bytes	Icono	jueves 8:47	-a----
index.php	238 bytes	Archivo PHP	Ayer 16:22	-a----
jobs.css	176 bytes	Documento de hoja de estilos en cascada	jueves 8:47	-----

In this moment, we have to test the path URL entering it to our web browser and test the URL localhost/home/www. (Replace localhost with the production server url). This application returns a XML view, because is a XML feed of another Work Applications websites.



## 4 Features

### 4.1 Feeds

This app has configured 3 XML feeds:

- Times of Malta
- Castille Resources
- Konnect

These feeds are configured in an array in the following files: get.php and list.php

```
8 //Array of feeds
9 $feeds = [
10     "jobsinmalta" => "https://jobsinmalta.com/jobs.rss?exclude_recruitment_agencies=1&limit=5",
11     "konnect" => "https://www.konnekt.com/opportunities/feed",
12     "castille" => "https://www.castilleresources.com/en/rss"
13 ];
```

If we want to remove or add feeds we have to modify this array called \$feeds.

**Note: These feeds are external of our application and we don't have control over them.**

### 4.2 List of vacancies of a channel

This feature permits us to view an xml of the vacancies of the chosen channel passed by URL. You have to write the following URL in the website:

`$_SERVER/www/list/$channel`

The screenshot shows a web browser window with the URL <localhost/home/www/list/konnekt>. The page title is "Channel: Konnect". Below it, the text "Number of vacancies: 218" is displayed in yellow, followed by a link <https://www.konnekt.com/>. A red banner at the bottom states "Description: Konnect Opportunity Feed". The main content area lists two job vacancies:

- Civil & Structural Draughtsperson**  
Published on Fri, 21 Oct 2016 17:19:14 +0200  
Creative & Design  
► Job Details
- Marketing Assistant**  
Published on Fri, 21 Oct 2016 16:57:51 +0200  
Marketing & PR  
► Job Details

In the top of the page we will view:

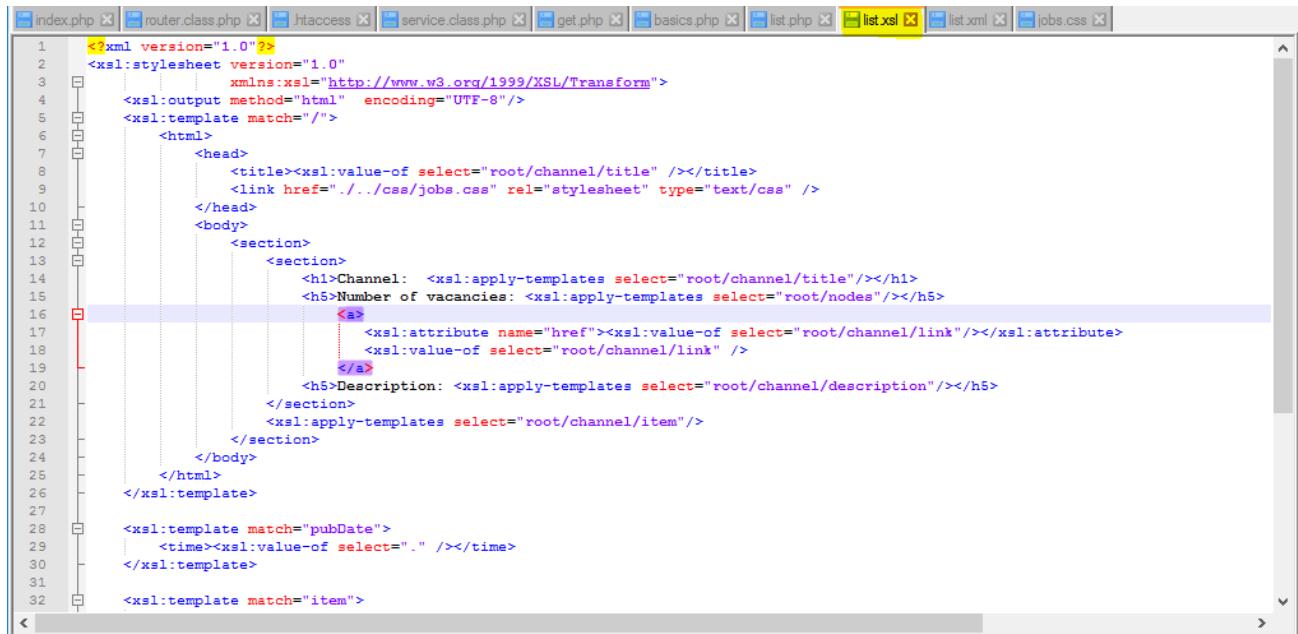
- The name of the Channel
- Number of vacancies of the channel
- Link of the channel
- Description of the channel

And then, they are a list of vacancies of the choosen channel. If we change the URL variable, the feed will change:

The screenshot shows a web browser window with the URL <localhost/home/www/list/jobsinmalta>. The page title is "Channel: JobsInMalta.com". Below it, the text "Number of vacancies: 5" is displayed in yellow, followed by a link <http://www.jobsinmalta.com>. A red banner at the bottom states "Description: Vacancies as published on JobsInMalta.com". The main content area lists three job vacancies:

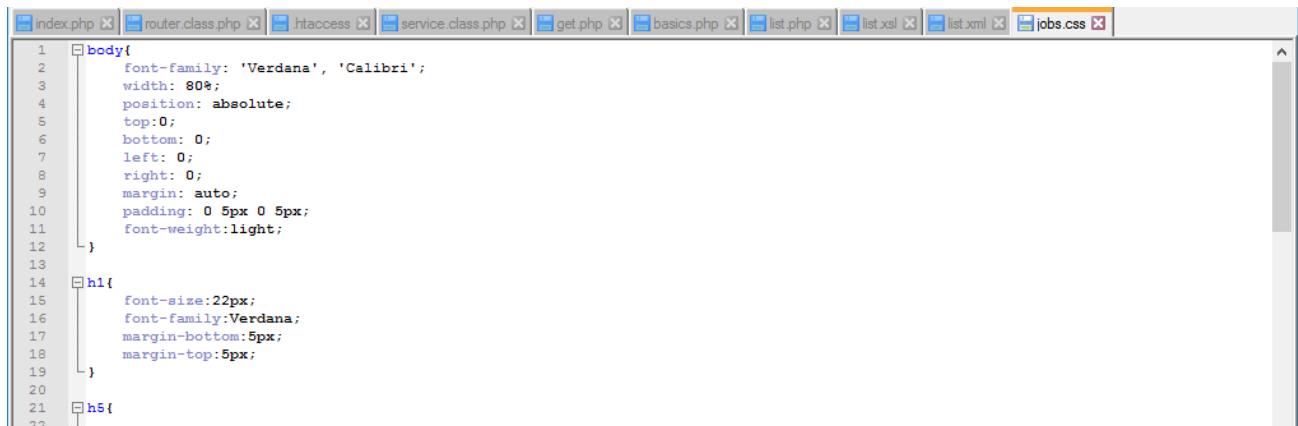
- Barista/Customer Service**  
Published on Sun, 23 Oct 2016 01:58:40 +0200  
Hospitality & Leisure  
► Job Details
- Guest Care Host**  
Published on Sun, 23 Oct 2016 01:52:01 +0200  
Hospitality & Leisure  
► Job Details
- Sales and Account Management Executive**

The list of vacancies is ordered by an XSL template placed in the www/xsl folder. The file is list.xsl



```
<?xml version="1.0"?>
<xsl:stylesheet version="1.0"
    xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
    <xsl:output method="html" encoding="UTF-8"/>
    <xsl:template match="/">
        <html>
            <head>
                <title><xsl:value-of select="root/channel/title" /></title>
                <link href="../../css/jobs.css" rel="stylesheet" type="text/css" />
            </head>
            <body>
                <section>
                    <section>
                        <h1>Channel: <xsl:apply-templates select="root/channel/title"/></h1>
                        <h5>Number of vacancies: <xsl:apply-templates select="root/nodes" /></h5>
                        <a href="#">
                            <xsl:attribute name="href"><xsl:value-of select="root/channel/link"/></xsl:attribute>
                            <xsl:value-of select="root/channel/link" />
                        </a>
                        <h5>Description: <xsl:apply-templates select="root/channel/description"/></h5>
                    </section>
                    <xsl:apply-templates select="root/channel/item" />
                </section>
            </body>
        </html>
    </xsl:template>
    <xsl:template match="pubDate">
        <time><xsl:value-of select=". " /></time>
    </xsl:template>
    <xsl:template match="item">
```

The CSS design is got by the file /www/css/Jobs.css If we want to change the design of the XML feeds we have to change this file:

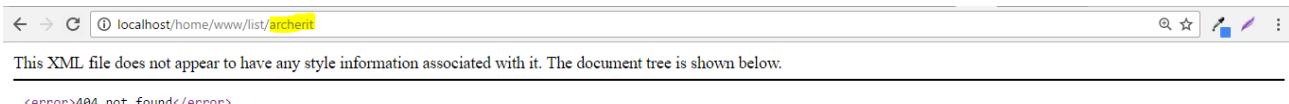


```
body{
    font-family: 'Verdana', 'Calibri';
    width: 80%;
    position: absolute;
    top:0;
    bottom: 0;
    left: 0;
    right: 0;
    margin: auto;
    padding: 0 5px 0 5px;
    font-weight:light;
}

h1{
    font-size:22px;
    font-family:Verdana;
    margin-bottom:5px;
    margin-top:5px;
}

h5{
```

If we enter in a url without associated channel, the website will return a 404 error:



#### 4.2.1 Cache

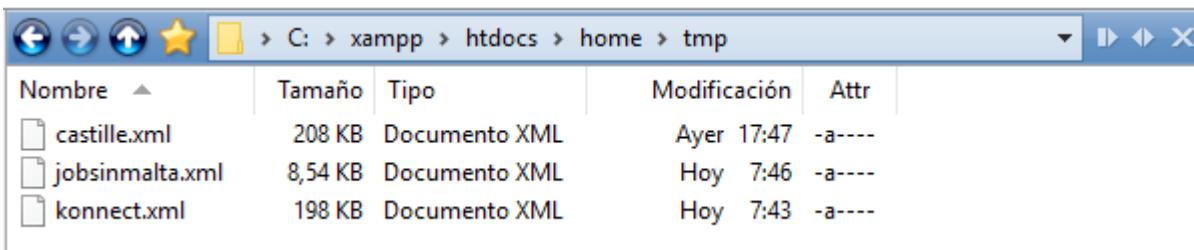
This functionality has the feature of cache. Cache permits to obtain a local versión of the feeds placed in our server. With this feature we get a better performance of the website. Cache must be turned on or turned off. In the top of the file list.php we can find the following lines:

```
1 <?php
2 //We decide if we want to use cache or not.
3 $cacheMode = true;
4 $timeCache = 120;
5 $getChannel = htmlspecialchars(Router::$params[2]);
```

\$cacheMode: True / False to turn on or to turn off the cache system.

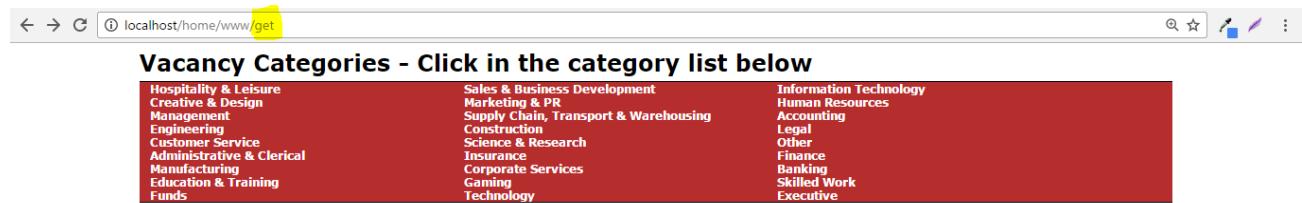
\$timecache: Time in seconds that the feed is saved in our local system. We can specify the time changing this value.

The system will check if there is a local versión of the XML feed in the time we have decided to cache. If not, or neighter the cache time is over, the system will go to the original website to get it. Cache files are stored in the /tmp/ folder:



## 4.3 Categories of all feeds

This feature permits us to view all the categories of vacancies of every channel. If you go to /get/ url you will receive a list of all categories of all feed's channels:



Hospitality & Leisure	Sales & Business Development	Information Technology
Creative & Design	Marketing & PR	Human Resources
Management	Supply Chain, Transport & Warehousing	Accounting
Engineering	Construction	Legal
Customer Service	Science & Research	Other
Administrative & Clerical	Insurance	Finance
Manufacturing	Corporate Services	Banking
Education & Training	Gaming	Skilled Work
Funds	Technology	Executive

This page uses another XSLT template called list2.xsl with its own styles.



```
<xsl:stylesheet version="1.0" encoding="UTF-8">
<xsl:stylesheet version="1.0"
    xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="html" encoding="UTF-8"/>
<xsl:template match="/">
<head>
    <title><xsl:value-of select="root/channel/title" /></title>
    <link href=".css/jobs.css" rel="stylesheet" type="text/css" />
</head>
<body>
    <section>
        <h1>Vacancy Categories - Click in the category list below</h1>
    <section>
        <xsl:for-each select="/root/categories/category">
            <a>
                <xsl:attribute name="href">./get/<xsl:value-of select="."/></xsl:attribute>
                <h6>
                    <xsl:value-of select="."/>
                </h6>
            </a>
        </xsl:for-each>
    </section>
</body>
<xsl:template>
<xsl:stylesheet>
```

If you click in the name of any category, the page will link you to a list of vacancies of that category.

**NOTE: This page is not cached. It get every categories each it's called by URL.**

### 4.3.1 Vacancies by category

If we click over any element of the list /get/ we will go to a page with the results of only vacancies of that category.

localhost/home/www/get/Hospitality%20&%20Leisure

## Vacancies by Category Hospitality & Leisure

**Chefs**  
Published on Mon, 24 Oct 2016 02:04:14 +0200  
► Job Details

---

**Head of Operations**  
Published on Fri, 14 Oct 2016 16:18:05 +0200  
► Job Details

---

**Restaurant Manager**

localhost/home/www/get/Supply%20Chain.%20Transport%20&%20Warehousing

## Vacancies by Category Supply Chain, Transport & Warehousing

**Logistic Engineer**  
Published on Fri, 21 Oct 2016 11:59:36 +0200  
► Job Details

---

**Runner**  
Published on Thu, 20 Oct 2016 17:16:00 +0200  
► Job Details

---

**Import / Export Manager - Chinese (mandarin)**

---

## Vacancies by Category Sales & Business Development

**Telemarketer**  
Published on Mon, 24 Oct 2016 02:55:44 +0200  
► Job Details

---

**Sales Specialist**  
Published on Mon, 24 Oct 2016 01:42:24 +0200  
► Job Details

---

**Sales Manager**  
Published on Thu, 20 Oct 2016 07:54:40 +0200  
► Job Details

---

These lists are obtained of the three feeds but how the organization of categories are different, there is no point in common in some categories. For Example, IT ( Konnect) Technology (Castille-Resources).

Vacancies by Category Technology

**Technical Programme Manager**  
Published on Fri, 21 Oct 2016 12:21:38 GMT  
► Job Details  
apply

**Affiliate Manager (German Market) - Gaming**  
Published on Fri, 21 Oct 2016 09:43:08 GMT  
► Job Details  
apply

**Junior ERP Developer**  
Published on Fri, 21 Oct 2016 09:42:58 GMT  
► Job Details  
apply

**Junior Web Developer**  
Published on Fri, 21 Oct 2016 09:42:55 GMT  
► Job Details  
apply

Activar Windows  
Ve a Configuración para activar Windows.

<https://www.castilleresources.com/en/job-detail/1419>

## 5 Future Improvements

In this section, we explain future improvements that will be desired to implement in the application.

- Centralize the feeds. We must put on feeds in one place with the idea to a better organization. We could do it in a database or in a file.
- Cache category feed in get.php
- Category order alphabetically in get.php
- Why not Rest Apis with json communication? I think the communication is quicker than with XML and XSLT.

## **6 Questions of the test**

### **6.1 Job items across feeds are slightly different. How would you normalize items?**

You have to see the difference in the nodes of the 3 feeds and there are two options to do:

- Quit nodes for normalize the feeds with a function `removeChild('node');`
- Add Nodes with null value or known data. For example images of the feed. We can use the method of SimpleXml `->addNode($node)` in a foreach.

### **6.2 How would you cache feed?**

Cache is used in the `list.php` (Please refer to 4.2.1)

### **6.3 How would you cache results? PSR-6**

To be honest, I don't know PSR-6 and I don't have experience about this to answer this question.

### **6.4 What to do with function `loadFeed()`?**

I would develope a class with this function because is used along the code.

### **6.5 Why element `channel` was added in `get.php`? (line 50)**

It's used for searching with the feature `xpath` of SimpleXml.

## **7 Issues and other considerations**

In this section I expose the problems of the platform if there were:

- Sometimes /get/ appears in blank. Perhaps for timeout or there is a problem with the original Router::.
- In Unix system is probably that the app failes because of path directory separator.
- I add the sentence CURL\_OPT\_VERIFIER = FALSE to communicate with the feeds from localhost. If you consider delete it, do it.