SOCIETAS ET
IVRISPRVDENTIA

Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slovak Republic[1]

Jana Koprlová

Abstract: The study focuses in its main aim on seeking yet undetected or undefined deficits in relation to applying the skip navigation mechanism on the websites of the central state administration bodies in the Slovak Republic in the context of improving the websites accessibility and it consists of two separate parts. The first part presents a basic introduction to the questions of skip navigation links, with the key attention paid to the following three main areas: applying of skip navigation links, visual hiding of skip navigation links, and web browsers' bug related to skip navigation links. The second part of the study concentrates on the basis of analysis of applying the skip navigation links on the websites of the central state administration bodies in the Slovak Republic on the processes focused on detection of potential deficits and gaps in the websites' accessibility or related possible non-compliance with the legislation in force.

Key Words: Websites; Websites' Accessibility; Skip Navigation Links; Public Administration; Central State Administration Bodies; Compliance with Legislation in Force; the Slovak Republic; Analysis.

Introduction

The on-line form of presentation and communication of the public administration authorities via Internet belongs not only to the most effective forms of communications – in relation to the territorial impact of the communicated information, but also to the most problematic – in the context of technical realization due to a number of specific standards required by handicapped web users with various forms of disabilities. In the following study the author focuses on the questions of applying the skip navigation links as key elements by building the websites.

---

[1] This study was created within the institutional project of the Faculty of Law of Trnava University in Trnava No. 10/2013 "Websites' Accessibility in Public Administration", in the Slovak original "Prístupnosť webových stránok vo verejnej správe".

While sighted web users use their eyes as a built-in skip navigation mechanism which enables them to bypass several links with only one click or to move directly to the link they want to reach with the mouse, for users with some forms of visual or motor disabilities means bypassing the navigation links or direct browsing the website a very serious technical problem. Importance and wide-social interest in solving this problem is reflected also in the adopted related legislation which is in the Slovak Republic represented by the latest Ministerial Decree of the Ministry of Finance of the Slovak Republic No. 55/2014 Coll. of Standards for Information Systems of Public Administration issued on March 4th, 2014, and effective from March 15th, 2014.[2]

The aim of the study is to analyze applying the skip navigation links on the websites of the central state administration bodies in the Slovak Republic. In the context of the research questions we define the main hypothesis as follows: *Homepages of the central state administration bodies in the Slovak Republic apply technically correctly the skip navigation links mechanism*.

Skip navigation links

The following part of the study familiarizes the readers with the main questions of applying of skip navigation links, visual hiding of skip navigation links, and web browsers' bug related to skip navigation links.

Applying of skip navigation links

The idea of applying the skip navigation links is simple: they serve to provide a link at the top of the webpage which jumps the user down to an anchor or target at the beginning of the main content. For the most part it seems to be easy, though there is more than one way to accomplish the goal. From the technical view the process of creating the skip navigation link could be explained through a HTML code as it is shown in the following example:[3]

---

[2] See *Výnos Ministerstva financií Slovenskej republiky č. 55/2014 Z.z. o štandardoch pre informačné systémy verejnej správy zo 4. marca 2014* [Ministerial Decree of the Ministry of Finance of the Slovak Republic No. 55/2014 Coll. of Standards for Information Systems of Public Administration issued on March 4th, 2014].

[3] "Skip Navigation" Links. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-10-25 [cit. 2014-04-14]. Available at: http://webaim.org/techniques/skipnav/.

- HTML code:
  ```
  <body>
  <a href="#main-content">Skip to Main Content</a>
  ...
  <main id="main-content">
    <h1>Heading</h1>
    <p>This is the first paragraph.</p>.
  ```

Visual hiding of skip navigation links

By building the website the most required form of applying the skip navigation mechanism is to make it invisible. For hiding the skip links there are several techniques to be applied. Two parallel conditions should be necessarily taken into account in this process: the first one means the requirement of visual hiding of the skip links content, and the second one represents the requirement of accessibility of the skip links content for screen readers. Nowadays, the best known and most often used CSS code *"visibility: hidden;/display: none;"* satisfies the only first one from the two above mentioned conditions and so it cannot be recommended in relation to its non-visibility and inaccessibility for screen readers. An effective solution of this problem, satisfying the both conditions, offer the following HTML and CSS codes:[4]

- HTML code:
  ```
  <div class="hidden">This text is hidden.</div>;
  ```
- CSS code:
  ```
  .hidden {
    position: absolute;
    left: -10000px;
    top: auto;
    width: 1px;
    height: 1px;
    overflow: hidden;
  }.
  ```

---

[4] CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-09-24 [cit. 2014-04-14]. Available at: http://webaim.org/techniques/css/invisiblecontent/.

By a generally recommended requirement to make the skip navigation links invisible until they receive keyboard focus, the following HTML and CSS codes should be applied:[5]

- HTML code:
  ```
  <div id="hidden"><a href="#main-content">Skip to Main Content
  </a></div>;
  ```
- CSS code:
  ```
  #hidden a {
    position: absolute;
    left: -10000px;
    top: auto;
    width: 1px;
    height: 1px;
    overflow: hidden;
  }
  #hidden a:focus {
    position: static;
    width: auto;
    height: auto;
  }.
  ```

This means a very useful solution which could be preferred above all for sighted keyboard users those cannot use a mouse.

Web browsers' bug related to skip navigation links

The recommended above mentioned skip navigation links related solutions are working effective in most web browsers, but nowadays there still exists one bug which lowers the efficiency of their applying through disrupting the logical order by browsing or reading the webpage links. This makes the webpage browsing with keyboard distortable or even non-effective. An appropriate solution for healing this bug offers the HTML code as follows:[6]

- HTML code:
  ```
  <body>
  ```

---

[5] CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-09-24 [cit. 2014-04-14]. Available at: http://webaim.org/techniques/css/invisiblecontent/.

[6] Skip Navigation Links (Updated 6/19/2009). In: *JimThatcher.com* [online]. 2014-03-07 [cit. 2014-04-14]. Available at: http://www.jimthatcher.com/skipnav.htm.

```
<a href="#main-content">Skip to Main Content</a>
...
<main id="main-content" tabindex="-1">
 <h1>Heading</h1>
 <p>This is the first paragraph.</p>.
```

Analysis of applying the skip navigation links on the websites of the central state administration bodies in the Slovak Republic

Our analysis of applying the skip navigation links on the websites of the central state administration bodies in the Slovak Republic has been legislatively based on the Ministerial Decree of the Ministry of Finance of the Slovak Republic No. 55/2014 Coll. of Standards for Information Systems of Public Administration issued on March 4th, 2014, and effective from March 15th, 2014, with the main attention laid on the § 14 Websites' Accessibility (in the Slovak original "§ 14 Prístupnosť webových stránok"), including related appendix Guideline 13. Providing Clear Navigation Mechanisms (in the Slovak original "Pravidlo 13. Poskytovanie prehľadného mechanizmu navigácie").[7]

Our analysis was realized in the middle of April 2014 by applying web browser Internet Explorer 11 (with style sheets and active elements turned off). Complete sample was represented by all websites of all the central state administration bodies in the Slovak Republic, while research sample was defined by all homepages of all the central state administration bodies in the Slovak Republic, namely of:[8]

🔸 Ministry of Economy of the Slovak Republic (http://www.economy.gov.sk/);

---

[7] Compare with KOPRLA, M. and J. KOPRLOVÁ. Analýza prístupnosti webových stránok vybraných webových sídiel verejnej správy z pohľadu administratívno-správneho členenia Slovenskej republiky. *Societas et res publica* [online]. 2013, roč. 2, č. 1, pp. 93-160 [cit. 2014-04-14]. ISSN 1338-6530. Available at: http://serp.fsv.ucm.sk/archive/2013/01/SOCIETAS-ET-RES-PUBLICA-2013-01.pdf; and with KOPRLA, M. Prístupnosť webových stránok ako významný faktor zvyšovania konkurencieschopnosti. In: K. ĎURKOVÁ, A. BOBOVNICKÝ and A. ZAUŠKOVÁ, eds. *Inovácie a vedomostná spoločnosť/digitálny marketing – udržateľný rast a návrat investícií* [CD-ROM]. 1. vyd. Trnava: Univerzita sv. Cyrila a Metoda v Trnave, Fakulta masmediálnej komunikácie, 2012, pp. 49-63. ISBN 978-80-8105-454-9.

[8] See *Zákon č. 575/2001 Z.z. o organizácii činnosti vlády a organizácii ústrednej štátnej správy v platnom znení* [Act No. 575/2001 Coll. on Organization of the Activities of the Government and Organization of the Central Public Administration, as amended].

- Ministry of Finance of the Slovak Republic (http://www.finance.gov.sk/);
- Ministry of Transport, Construction and Regional Development of the Slovak Republic (http://www.telecom.gov.sk/);
- Ministry of Agriculture and Rural Development of the Slovak Republic (http://www.mpsr.sk/);
- Ministry of Interior of the Slovak Republic (http://www.minv.sk/);
- Ministry of Defense of the Slovak Republic (http://www.mod.gov.sk/);
- Ministry of Justice of the Slovak Republic (http://www.justice.gov.sk/);
- Ministry of Foreign and European Affairs of the Slovak Republic (http://www.foreign.gov.sk/);
- Ministry of Labour, Social Affairs and Family of the Slovak Republic (http://www.employment.gov.sk/);
- Minstry of Environment of the Slovak Republic (http://www.minzp.sk/);
- Ministry of Education, Science, Research and Sport of the Slovak Republic (http://www.minedu.sk/);
- Ministry of Culture of the Slovak Republic (http://www.culture.gov.sk/);
- Ministry of Health of the Slovak Republic (http://www.health.gov.sk/);
- Government Office of the Slovak Republic (http://www.vlada.gov.sk/);
- Antimonopoly Office of the Slovak Republic (http://www.antimon.gov.sk/);
- Statistical Office of the Slovak Republic (http://slovak.statistics.sk/);
- Geodesy, Cartography and Cadastre Authority of the Slovak Republic (http://www.skgeodesy.sk/);
- Nuclear Regulatory Authority of the Slovak Republic (http://www.ujd.gov.sk/);
- Slovak Office of Standards, Metrology and Testing (http://www.unms.sk/);
- Office for Public Procurement (http://www.uvo.gov.sk/);
- Industrial Property Office of the Slovak Republic (https://www.indprop.gov.sk/);
- State Material Reserves of the Slovak Republic (http://www.reserves.gov.sk/);
- National Security Authority (http://www.nbusr.sk/).

Ministry of Economy of the Slovak Republic

Next figure displays homepage of the Ministry of Economy of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 1 Website (with style sheets and active elements turned off) of the Ministry of Economy of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Economy of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.economy.gov.sk/.

Analyzing the homepage of the Ministry of Economy of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[9]

- Number of links before the main content: 150 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Economy of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

---

[9] Source code of the website of the *Ministry of Economy of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.economy.gov.sk/.

Ministry of Finance of the Slovak Republic

Next figure displays homepage of the Ministry of Finance of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Figure 2 Website (with style sheets and active elements turned off) of the Ministry of Finance of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Finance of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www. finance.gov.sk/.
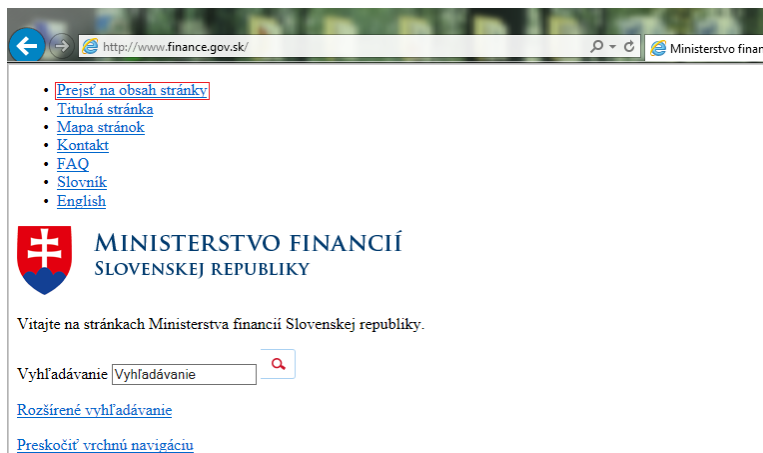
Analyzing the homepage of the Ministry of Finance of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[10]

- Number of links before the main content: 48 links;
- Number of skip links: 2 links;
- Number of links before the first skip link: 2 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <li class="hidden">
    <a href="#sectionLeft">Prejsť na obsah stránky</a>
  </li>
  <span class="hidden">
  ```

---

[10] Source code of the website of the *Ministry of Finance of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.finance.gov.sk/.

```
   <a href="#main">Preskočiť vrchnú navigáciu</a>
   </span>
   <div id="sectionLeft">
     ...
   </div>
   <div id="main">
     ...
   </div>;
```
CSS code of skip links:
```
.hidden {
   display: none !important;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Finance of the Slovak Republic, but it works technically incorrectly. In relation to our finding we can recommend to add the attribute *tabindex="-1"* to website's target elements and to replace CSS code *"display: none !important;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers' bug related to skip navigation links", with the aim, firstly, to make the skip navigation links content accessible/visible for screen readers and, secondly, to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Ministry of Transport, Construction and Regional Development of the Slovak Republic

Next figure displays homepage of the Ministry of Transport, Construction and Regional Development of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.
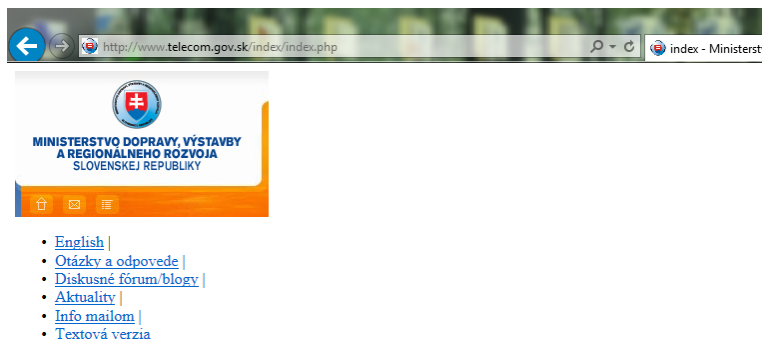
Analyzing the homepage of the Ministry of Transport, Construction and Regional Development of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[11]

Number of links before the main content: 36 links;
Number of skip links: 0 links.

---

[11] Source code of the website of the *Ministry of Transport, Construction and Regional Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www. telecom.gov.sk/.

Figure 3 Website (with style sheets and active elements turned off) of the Ministry of Transport, Construction and Regional Development of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Transport, Construction and Regional Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.telecom.gov.sk/.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Transport, Construction and Regional Development of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Ministry of Agriculture and Rural Development of the Slovak Republic

Next figure displays homepage of the Ministry of Agriculture and Rural Development of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Ministry of Agriculture and Rural Development of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[12]

---

[12] Source code of the website of the *Ministry of Agriculture and Rural Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.mpsr.sk/.

Figure 4 Website (with style sheets and active elements turned off) of the Ministry of Agriculture and Rural Development of the Slovak Republic
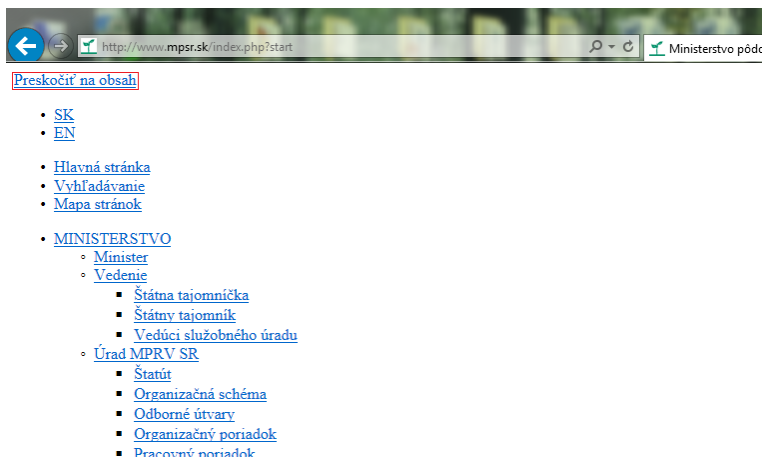
Source: Website (with style sheets and active elements turned off) of the *Ministry of Agriculture and Rural Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.mpsr.sk/.

- Number of links before the main content: 97 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <div id="contentjump">
    <a href="#obsah">Preskočiť na obsah</a>
  </div>
  <a name="obsah"></a>;
  ```
- CSS code of skip links:
  ```
  #contentjump {
    font-size: 150%;
    font-weight: bold;
    display: none;
  }.
  ```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Agriculture and Rural Development of the Slovak Republic, but it works technically incorrectly. In relation to our finding we can recommend to add the attribute *tabindex="-1"* to website's target element

and to replace CSS code *"display: none;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers' bug related to skip navigation links", with the aim, firstly, to make the skip navigation links content accessible/visible for screen readers and, secondly, to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Ministry of Interior of the Slovak Republic

Next figure displays homepage of the Ministry of Interior of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Figure 5 Website (with style sheets and active elements turned off) of the Ministry of Interior of the Slovak Republic
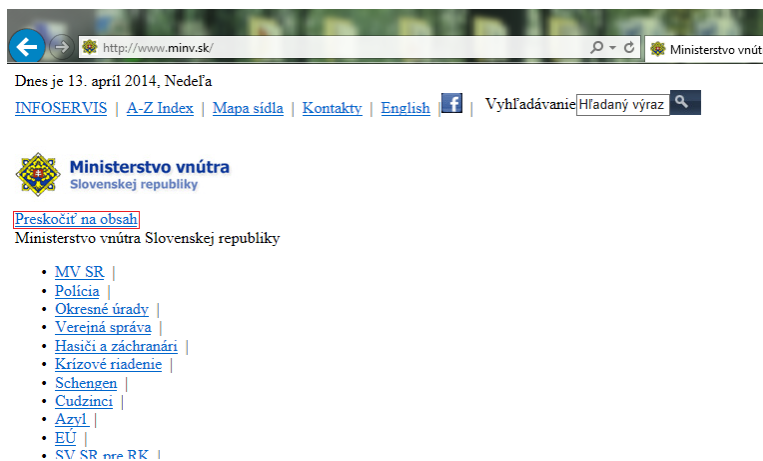
Source: Website (with style sheets and active elements turned off) of the *Ministry of Interior of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minv.sk/.

Analyzing the homepage of the Ministry of Interior of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[13]

- Number of links before the main content: 56 links;

---

[13] Source code of the website of the *Ministry of Interior of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minv.sk/.

- Number of skip links: 1 link;
- Number of links before the first skip link: 9 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <a href="#obsah" class="skryty" accesskey="s">Preskočiť na ob-
  sah</a>
  <div class="main02" id="obsah">
    …
  </div>;
  ```
- CSS code of skip links:
  ```
  .oblastprint,
  .skryty {
    display: none;
  }.
  ```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Interior of the Slovak Republic, but it works technically incorrectly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website, then to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"display: none;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers' bug related to skip navigation links", with the aim, firstly, to make the skip navigation links content accessible/visible for screen readers and, secondly, to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Ministry of Defense of the Slovak Republic

Next figure displays homepage of the Ministry of Defense of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Ministry of Defense of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[14]

---

[14] Source code of the website of the *Ministry of Defense of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.mod.gov.sk/.

Figure 6 Website (with style sheets and active elements turned off) of the Ministry of Defense of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Defense of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.mod.gov.sk/.

- Number of links before the main content: 82 links;
- Number of skip links: 5 links;
- Number of links before the first skip link: 2 links;
- Visual display of skip links: hidden;
- HTML code of skip links:

```
<ul id="skratky" class="screenreader">
  ...
  <li>
    <a href="#page" accesskey="0">Skočiť na obsah</a>
  </li>
  <li>
    <a href="#topmenu">Skočiť na hlavné menu</a>
  </li>
  <li>
    <a href="#right">Skočiť na pravý informačný panel</a>
  </li>
</ul>
<p class="hide">
  <a href="#topmenu" class="hide">Skočiť na hlavné menu</a>
</p>
```

```
<p class="hide">
  <a href="#topmenu" class="hide">Skočiť na hlavné menu</a>
</p>
<div id="page">
  ...
</div>
<div id="topmenu">
  ...
</div>
<div id="right">
  ...
</div>;
```
CSS code of skip links:
```
.screenreader,
.hidescr,
.scrhide {
  height: 1px;
  left: -9999em;
  overflow: hidden;
  position: absolute;
  top: auto;
  width: 1px;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Defense of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website and to add the attribute *tabindex="-1"* to website's target elements in accordance with the model example shown in the previous part of the study named "Web browsers' bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Ministry of Justice of the Slovak Republic

Next figure displays homepage of the Ministry of Justice of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 7 Website (with style sheets and active elements turned off) of the Ministry of Justice of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Justice of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.justice.gov.sk/.
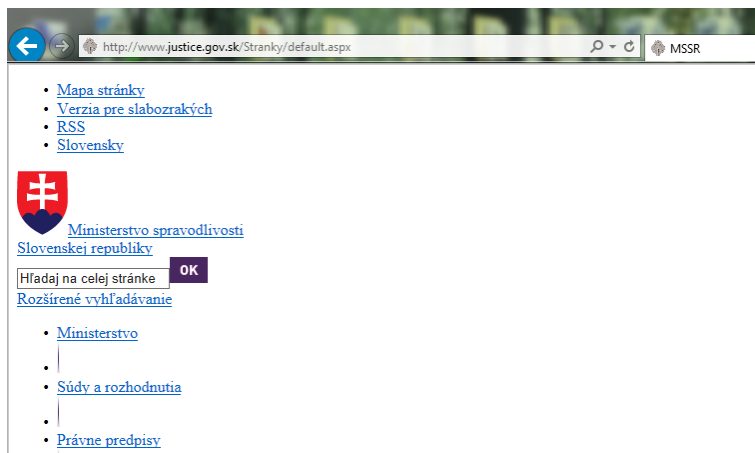
Analyzing the homepage of the Ministry of Justice of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[15]

- Number of links before the main content: 14 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Justice of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Ministry of Foreign and European Affairs of the Slovak Republic

Next figure displays homepage of the Ministry of Foreign and European Affairs of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

---

[15] Source code of the website of the *Ministry of Justice of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.justice.gov.sk/.

Figure 8 Website (with style sheets and active elements turned off) of the Ministry of Foreign and European Affairs of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Foreign and European Affairs of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.foreign.gov.sk/.

Analyzing the homepage of the Ministry of Foreign and European Affairs of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[16]

- Number of links before the main content: 14 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <div id="txtNavigation">
    <a href="#PageContent" title="Preskočiť navigáciu">Preskočiť navigáciu</a>
  </div>
  ```
  [*Missing selector id="PageContent"*];
- CSS code of skip links:
  ```
  #txtNavigation {
    display: none;
  }.
  ```

---

[16] Source code of the website of the *Ministry of Foreign and European Affairs of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.foreign.gov.sk/.

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Foreign and European Affairs of the Slovak Republic, but it works technically incorrectly. In relation to our finding we can recommend to replace element *"<div class="contentdiv">"* with element *"<div class="contentdiv" id="PageContent">"*, then to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"display: none;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers' bug related to skip navigation links", with the aim, firstly, to make the skip navigation links content accessible/visible for screen readers and, secondly, to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Ministry of Labour, Social Affairs and Family of the Slovak Republic

Next figure displays homepage of the Ministry of Labour, Social Affairs and Family of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 9 Website (with style sheets and active elements turned off) of the Ministry of Labour, Social Affairs and Family of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Labour, Social Affairs and Family of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.employment.gov.sk/.

Analyzing the homepage of the Ministry of Labour, Social Affairs and Family of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[17]
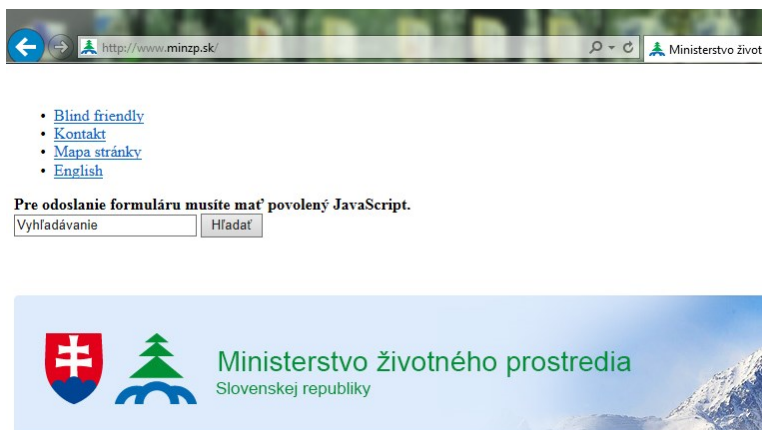
+ Number of links before the main content: 62 links;
+ Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Labour, Social Affairs and Family of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Ministry of Environment of the Slovak Republic

Next figure displays homepage of the Ministry of Environment of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 10 Website (with style sheets and active elements turned off) of the Ministry of Environment of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Environment of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minzp.sk/.

---

[17] Source code of the website of the *Ministry of Labour, Social Affairs and Family of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.employment.gov.sk/.

Analyzing the homepage of the Ministry of Environment of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[18]

+ Number of links before the main content: 57 links;
+ Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Environment of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Ministry of Education, Science, Research and Sport of the Slovak Republic

Next figure displays homepage of the Ministry of Education, Science, Research and Sport of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Ministry of Education, Science, Research and Sport of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[19]

+ Number of links before the main content: 91 links;
+ Number of skip links: 3 links;
+ Number of links before the first skip link: 11 links;
+ Visual display of skip links: hidden;
+ HTML code of skip links:
  ```
  <ul id="skratky" class="hide">
    ...
    <li>
      <a href="#search" accesskey="4">Vyhľadávanie</a>
    </li>
    <li>
      <a href="#topmenu" accesskey="5">Hlavné menu</a>
    </li>
  ```

---

[18] Source code of the website of the *Ministry of Environment of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minzp.sk/.

[19] Source code of the website of the *Ministry of Education, Science, Research and Sport of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minedu.sk/.

```
...
  <li>
    <a href="#page" accesskey="S">Preskoč naviáciu</a>
  </li>
</ul>
<input accesskey="4" title="Vyhľadávanie" id="search-input"
name="search" size="18" class="text-input" value="Vyhľadávanie"
onblur="if(this.value == '') { this.value='Vyhľadávanie'}" onfocus="if
(this.value == 'Vyhľadávanie') {this.value=''}" type="text" />
<div id="topmenu">
  <div id="dropdown-menu" name="topmenu">
   ...
  </div>
</div>
<div id="page">
 ...
</div>;
```
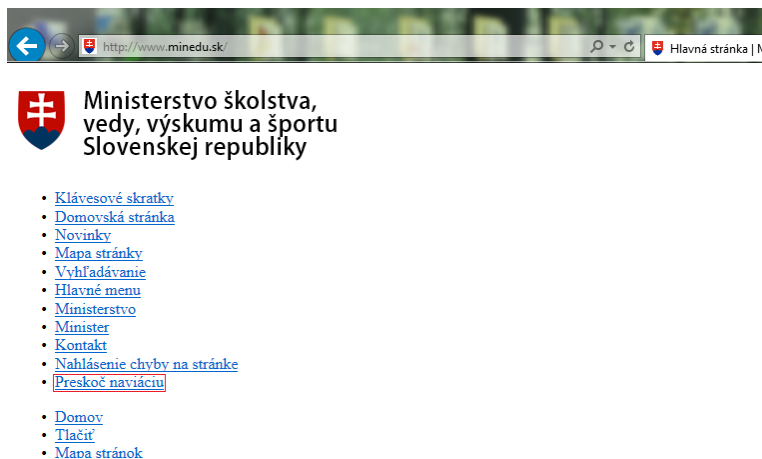
➕ CSS code of skip links:

```
.hide {
  height: 1px;
  left: -9999em;
  overflow: hidden;
  position: absolute;
  top: auto;
  width: 1px;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Ministry of Education, Science, Research and Sport of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website, then to remove the duplicate target attribute *name="topmenu"* and to add the attribute *tabindex="-1"* to website's target elements in accordance with the model example shown in the previous part of the study named "Web browsers' bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Figure 11 Website (with style sheets and active elements turned off) of the Ministry of Education, Science, Research and Sport of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Education, Science, Research and Sport of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minedu.sk/.

Ministry of Culture of the Slovak Republic

Next figure displays homepage of the Ministry of Culture of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.
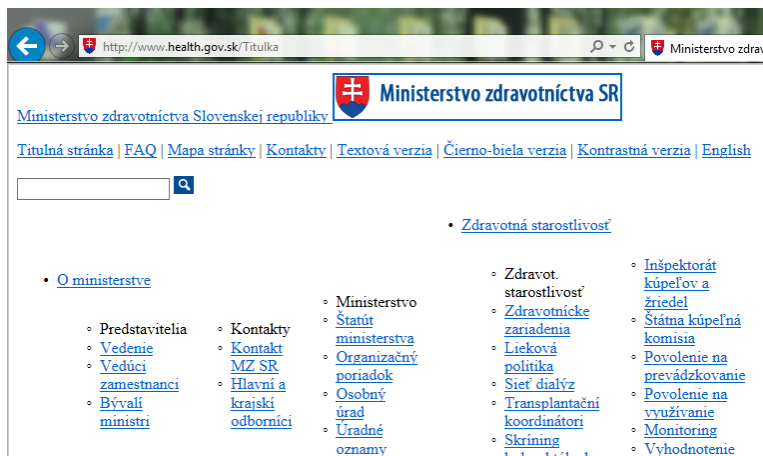
Analyzing the homepage of the Ministry of Culture of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[20]

- Number of links before the main content: 38 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Culture of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

---

[20] Source code of the website of the *Ministry of Culture of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.culture.gov.sk/.

Figure 12 Website (with style sheets and active elements turned off) of the Ministry of Culture of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Culture of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www. culture.gov.sk/.

Ministry of Health of the Slovak Republic

Next figure displays homepage of the Ministry of Health of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Analyzing the homepage of the Ministry of Health of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[21]

- Number of links before the main content: 86 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Ministry of Health of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

---

[21] Source code of the website of the *Ministry of Health of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.health.gov.sk/.

Figure 13 Website (with style sheets and active elements turned off) of the Ministry of Health of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Ministry of Health of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.health.gov.sk/.

Government Office of the Slovak Republic

Next figure displays homepage of the Government Office of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Government Office of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[22]

- Number of links before the main content: 68 links;
- Number of skip links: 4 links;
- Number of links before the first skip link: 2 links;
- Visual display of skip links: hidden;
- HTML code of skip links:

```
<ul id="skratky" class="screenreader">
  …
  <li>
    <a href="#page" accesskey="0">Skočiť na obsah</a>
```

---

[22] Source code of the website of the *Government Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.vlada.gov.sk/.

```
      </li>
      <li>
        <a href="#topmenu">Skočiť na hlavné menu</a>
      </li>
      <li>
        <a href="#left">Skočiť na pomocné menu</a>
      </li>
      <li>
        <a href="#right">Skočiť na užívateľské menu</a>
      </li>
    </ul>
    <div id="page">
      …
    </div>
    <div id="topmenu">
      …
    </div>
    [Missing selector id="#left"]
    <div id="right">
      …
    </div>;
```

🔸 CSS code of skip links:

```
    .hide,
    .hidden,
    .screenreader {
      height: 1px;
      left: -9999em;
      overflow: hidden;
      position: absolute;
      top: auto;
      width: 1px;
    }.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Government Office of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website and to add the attribute *tabindex="-1"* to website's target elements in accordance with the model example shown in the previous part of the study named "Web browsers'

bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Figure 14 Website (with style sheets and active elements turned off) of the Government Office of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Government Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.vlada.gov.sk/.
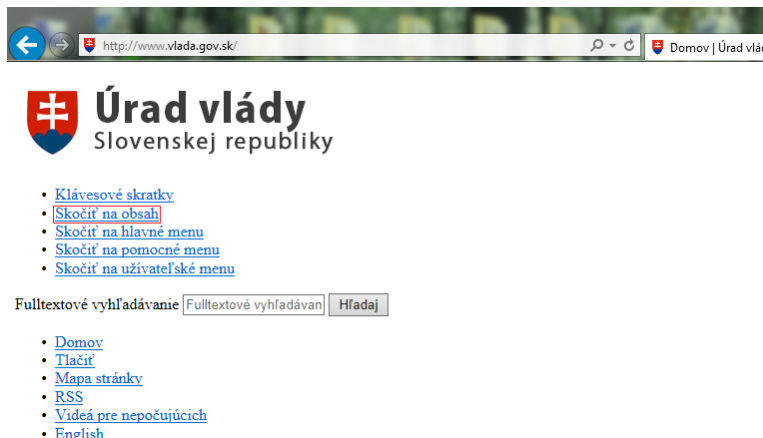
Antimonopoly Office of the Slovak Republic

Next figure displays homepage of the Antimonopoly Office of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Antimonopoly Office of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[23]

- Number of links before the main content: 68 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 1 link;
- Visual display of skip links: hidden;

[23] Source code of the website of the *Antimonopoly Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.antimon.gov.sk/.

- HTML code of skip links:

```
<ul class="hide">
  …
  <li>
    <a href="#content" accesskey="0">Na obsah stránky</a>
  </li>
</ul>
<a name="content"></a>
<section id="content" class="content" role="main">
  …
</section>;
```
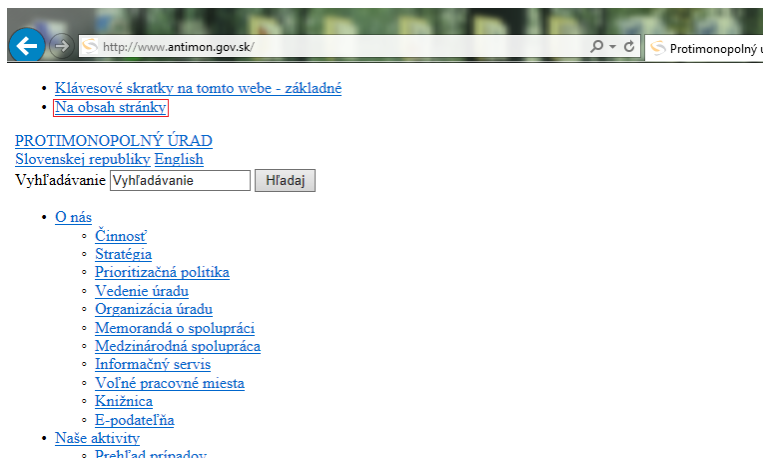
- CSS code of skip links:

```
.hide,
.screenreader {
  height: 0;
  left: -9999em;
  overflow: hidden;
  position: absolute;
  top: auto;
  width: 0;
}
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Antimonopoly Office of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to move the applied skip navigation link to the top of the website, then to remove both the duplicate target element *""* and selector *class= "content"* and to add the attribute *tabindex="-1"* to website's target element in accordance with the model example shown in the previous part of the study named "Web browsers' bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Figure 15 Website (with style sheets and active elements turned off) of the Antimonopoly Office of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Antimonopoly Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.antimon.gov.sk/.

Statistical Office of the Slovak Republic

Next figure displays homepage of the Statistical Office of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the Statistical Office of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[24]
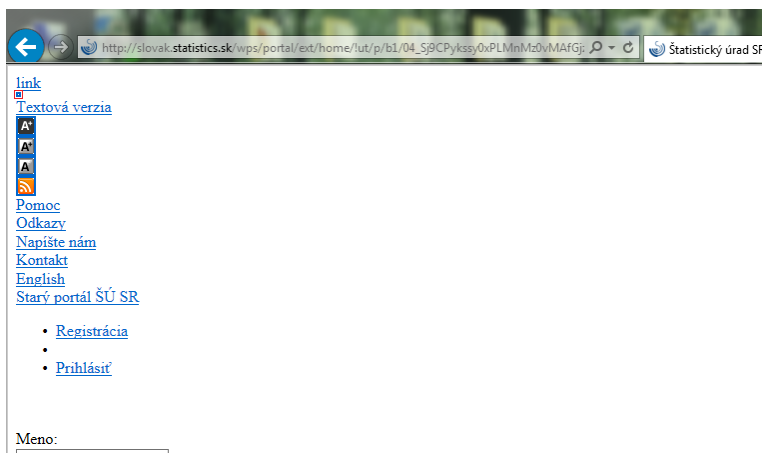
- Number of links before the main content: 34 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 1 link;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <a href="#lotusMainContent" accesskey="S" class="lotusAccess">
    <img src="/portal_dojo/v1.4.3/dojo/resources/blank.gif"
  alt="Preskočiť na odkaz na hlavný obsah pomocou prístupového
  kľúča S." />
  ```

---

[24] Source code of the website of the *Statistical Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://slovak.statistics.sk/.

```
</a>
<a id="lotusMainContent" name="lotusMainContent"></a>;
```
✚ CSS code of skip links:
```
.lotusAccess {
   position: absolute;
   top: -3000px;
   width: 500px;
}.
```

Figure 16 Website (with style sheets and active elements turned off) of the Statistical Office of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Statistical Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://slovak.statistics.sk/.

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Statistical Office of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website, then to replace element *"<a href="#lotusMainContent" accesskey="S" class="lotusAccess">"* with element *"<a href="#tabContent" accesskey="S" class="lotusAccess">"*, to remove element *" "*, to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"top: -3000px; width: 500px;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers'

bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Geodesy, Cartography and Cadastre Authority of the Slovak Republic

Next figure displays homepage of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 17 Website (with style sheets and active elements turned off) of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Geodesy, Cartography and Cadastre Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.skgeodesy.sk/.
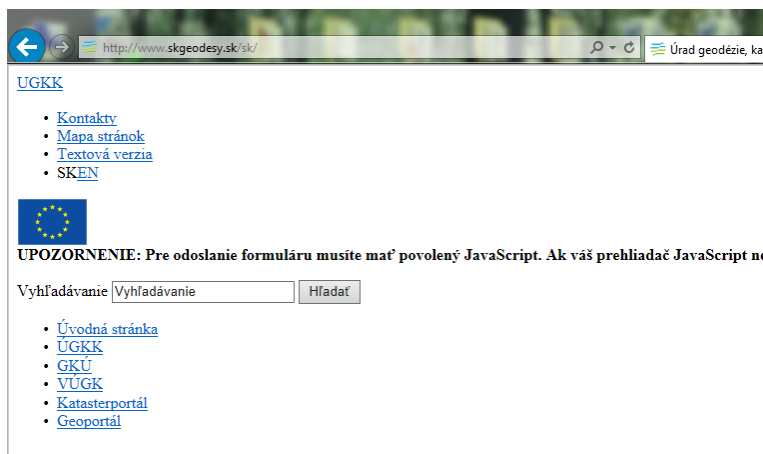
Analyzing the homepage of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[25]

- Number of links before the main content: 23 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Geodesy, Cartography and Cadastre Authority of the Slovak Republic. In re-

---

[25] Source code of the website of the *Geodesy, Cartography and Cadastre Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.skgeodesy.sk/.

lation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Nuclear Regulatory Authority of the Slovak Republic

Next figure displays homepage of the Nuclear Regulatory Authority of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 18 Website (with style sheets and active elements turned off) of the Nuclear Regulatory Authority of the Slovak Republic
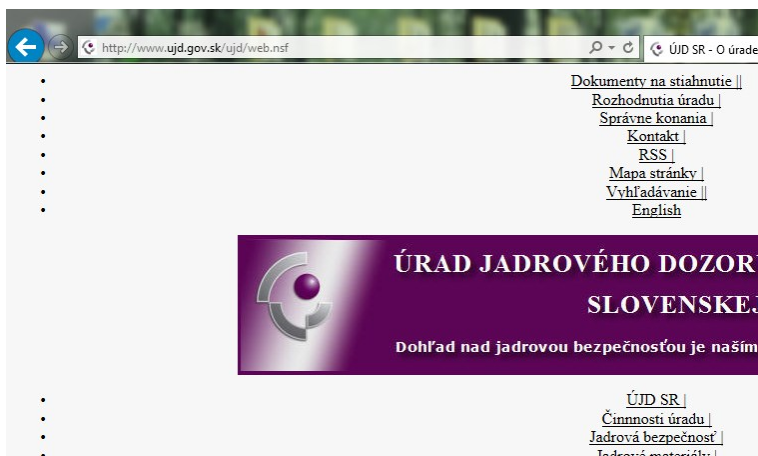
Source: Website (with style sheets and active elements turned off) of the *Nuclear Regulatory Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.ujd.gov.sk/.

Analyzing the homepage of the Nuclear Regulatory Authority of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[26]

⬥ Number of links before the main content: 44 links;
⬥ Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Nuclear Regulatory Authority of the Slovak Republic. In relation to this find-

---

[26] Source code of the website of the *Nuclear Regulatory Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.ujd.gov.sk/.

ing we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Slovak Office of Standards, Metrology and Testing

Next figure displays homepage of the Slovak Office of Standards, Metrology and Testing with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Figure 19 Website (with style sheets and active elements turned off) of the Slovak Office of Standards, Metrology and Testing
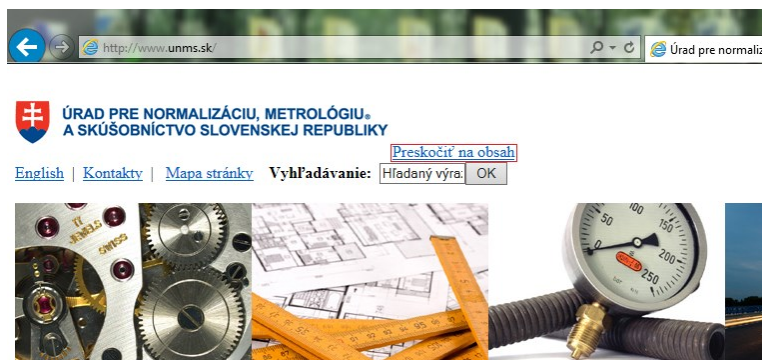
Source: Website (with style sheets and active elements turned off) of the *Slovak Office of Standards, Metrology and Testing* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.unms.sk/.

Analyzing the homepage of the Slovak Office of Standards, Metrology and Testing in context of using the skip navigation links following key findings could be detected:[27]

🔸 Number of links before the main content: 36 links;
🔸 Number of skip links: 1 link;
🔸 Number of links before the first skip link: 0 links;
🔸 Visual display of skip links: hidden;

---

[27] Source code of the website of the *Slovak Office of Standards, Metrology and Testing* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.unms.sk/.

➕ HTML code of skip links:

```
<a href="#obsah" class="nodisp">Preskočiť na obsah</a>
<div class="main04text" id="obsah">
  ...
</div>;
```

➕ CSS code of skip links:

```
.uphelp,
.imgright,
.find,
.clearfind,
.clearfind1,
.topimg,
.vyber,
.main01,
.main02,
.main03,
.sitepath,
.organizacie01,
.organizacie02,
.organizacie03,
.organizacie04,
.bluelink,
.floatleft,
.main05,
.main06,
.down,
.divprint,
.naj,
.nodisp {
  display: none;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Slovak Office of Standards, Metrology and Testing, but it works technically incorrectly. In relation to our finding we can recommend to move the applied skip navigation links to the top of the website, then to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"display: none;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip

navigation links" and "Web browsers' bug related to skip navigation links", with the aim, firstly, to make the skip navigation links content accessible/visible for screen readers and, secondly, to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Office for Public Procurement

Next figure displays homepage of the Office for Public Procurement with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Figure 20 Website (with style sheets and active elements turned off) of the Office for Public Procurement

Source: Website (with style sheets and active elements turned off) of the *Office for Public Procurement* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.uvo.gov.sk/.

Analyzing the homepage of the Office for Public Procurement in context of using the skip navigation links following key findings could be detected:[28]

- Number of links before the main content: 33 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 0 links;

[28] Source code of the website of the *Office for Public Procurement* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.uvo.gov.sk/.

- Visual display of skip links: hidden;
- HTML code of skip links:
  Choď na obsah
  <div class="home" id="main-content" role="main">
    …
  </div>;
- CSS code of skip links:
  .obscured,
  .obscuredLabel label,
  #skip-to-content,
  #heading .company-title span,
  #heading .page-title,
  #navigation h1,
  #navigation h2,
  #breadcrumbs h2,
  #breadcrumbs h1 {
    background: #ffffff;
    clip: rect(0, 0, 0, 0);
    position: absolute;
    left: -9999em;
    width: 1px;
    height: 1px;
    overflow: hidden;
    display: block;
  }
  #skip-to-content:focus {
   left: auto;
    right: 0;
    top: -2.4em;
  }.

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Office for Public Procurement which works technically correctly. In relation to our finding we can recommend to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"background: #ffffff; clip: rect(0, 0, 0, 0); left: auto; right: 0; top: -2.4em;"* with CSS code in accordance with the model examples shown in the previous parts of the study named "Visual hiding of skip navigation links" and "Web browsers' bug related to skip navigation links", with the aim to eliminate the dis-

---

rupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

Industrial Property Office of the Slovak Republic

Next figure displays homepage of the Industrial Property Office of the Slovak Republic with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Figure 21 Website (with style sheets and active elements turned off) of the Industrial Property Office of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *Industrial Property Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: https://www.indprop.gov.sk/.
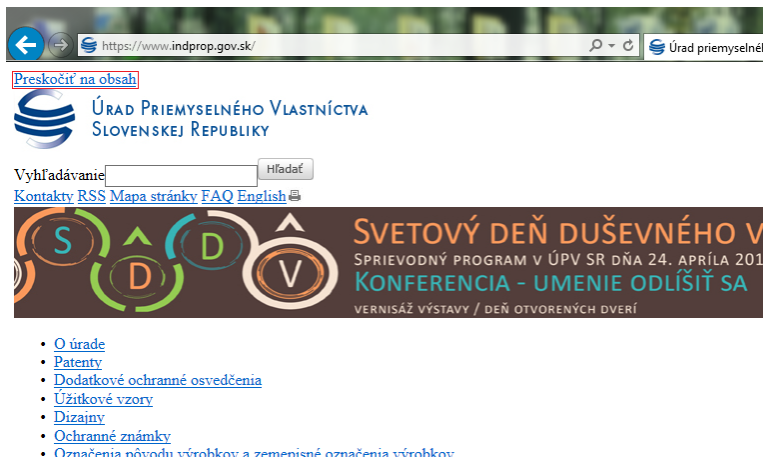
Analyzing the homepage of the Industrial Property Office of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[29]

- Number of links before the main content: 43 links;
- Number of skip links: 1 link;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;

---

[29] Source code of the website of the *Industrial Property Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: https://www.indprop.gov.sk/.

- HTML code of skip links:

```
<A id=top href="#obsah">Preskočiť na obsah</A>
<H1 id=obsah>Aktuality</H1>;
```

- CSS code of skip links:

```
#top {
  color: black;
  display: block;
  height: 20px;
  font-size: 80%;
  margin: 0 auto;
  overflow: hidden;
  text-decoration: none;
  width: 200px;
}
#top:hover {
  color: #B2B2B2;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the Industrial Property Office of the Slovak Republic which works technically correctly. In relation to our finding we can recommend to replace elements *"<DIV class=mainbody><H1 id=obsah>Aktuality</H1>"* with elements *"<DIV class=mainbody id=obsah><H1>Aktuality</H1>"*, then to add the attribute *tabindex="-1"* to website's target element and to replace CSS code *"#top:hover"* with CSS code *"#top:focus, #top:hover"* in accordance with the model example shown in the previous part of the study named "Web browsers' bug related to skip navigation links", with the aim to eliminate the disrupted logical order by browsing or reading the webpage links that occurs by most of web browsers.

State Material Reserves of the Slovak Republic

Next figure displays homepage of the State Material Reserves of the Slovak Republic with style sheets and active elements turned off. There is no skip link applied.

Figure 22 Website (with style sheets and active elements turned off) of the State Material Reserves of the Slovak Republic

Source: Website (with style sheets and active elements turned off) of the *State Material Reserves of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.reserves.gov.sk/.
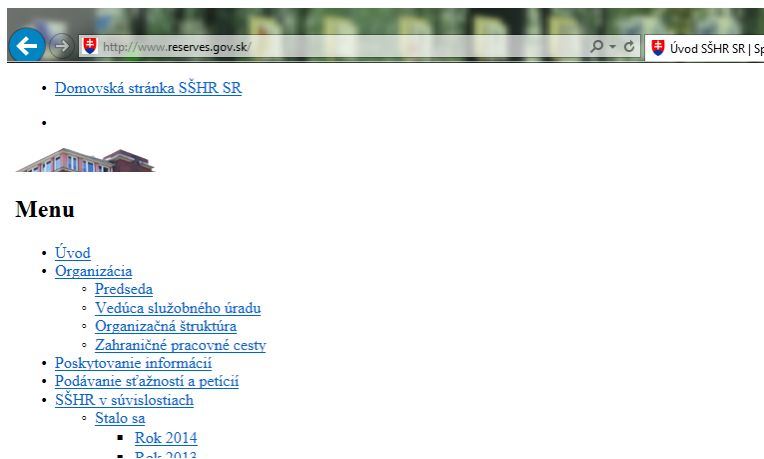
Analyzing the homepage of the State Material Reserves of the Slovak Republic in context of using the skip navigation links following key findings could be detected:[30]

- Number of links before the main content: 96 links;
- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the State Material Reserves of the Slovak Republic. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

National Security Authority

Next figure displays homepage of the National Security Authority with style sheets and active elements turned off. There is no skip link applied.

---

[30] Source code of the website of the *State Material Reserves of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.reserves.gov.sk/.

Figure 23 Website (with style sheets and active elements turned off) of the National Securi- ty Authority

Source: Website (with style sheets and active elements turned off) of the *National Security Authority* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.nbusr.sk/.

Analyzing the homepage of the National Security Authority in context of using the skip navigation links following key findings could be detect- ed:[31]

🞣 Number of links before the main content: 22 links;
🞣 Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the Na- tional Security Authority. In relation to this finding we can recommend to add the skip navigation links in accordance with the model examples shown in the previous part of the study named "Skip navigation links".

Conclusion

In the study "Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slo- vak Republic" we have paid our attention in accordance with its main aim to seeking yet undetected or undefined deficits in relation to applying the skip navigation mechanism on the websites of the central state admin-

---

[31] Source code of the website of the *National Security Authority* [online]. 2014 [cit. 2014-04- 14]. Available at: http://www.nbusr.sk/.

istration bodies in the Slovak Republic in the context of improving the websites accessibility. In the context of our research questions we defined the main hypothesis as follows: *Homepages of the central state administration bodies in the Slovak Republic apply technically correctly the skip navigation links mechanism*.

According to the results and key findings presented in previous parts of our study we can underline the following final conclusions (valid as of April 14th, 2014), divided in to three separate groups:

Homepages with the technically correctly working skip navigation mechanism – for this group we can recommend to add the attribute *tabindex="-1"* to website's target elements which relates namely to these institutions:

- Ministry of Defense of the Slovak Republic;
- Ministry of Education, Science, Research and Sport of the Slovak Republic;
- Government Office of the Slovak Republic;
- Antimonopoly Office of the Slovak Republic;
- Statistical Office of the Slovak Republic;
- Office for Public Procurement;
- Industrial Property Office of the Slovak Republic.

Homepages with the technically incorrectly working skip navigation mechanism – for this group we can recommend to add the attribute *tabindex="-1"* to website's target elements and to replace CSS code *"display: none;"* with CSS code in accordance with the exactly in our study presented model examples. These recommendations relate namely to following institutions:

- Ministry of Finance of the Slovak Republic;
- Ministry of Agriculture and Rural Development of the Slovak Republic;
- Ministry of Interior of the Slovak Republic;
- Ministry of Foreign and European Affairs of the Slovak Republic;
- Slovak Office of Standards, Metrology and Testing.

Homepages with no skip navigation mechanism applied – for this group we can recommend to add skip navigation links, then to add target elements, to add the attribute *tabindex="-1"* to website's target elements and to avoid applying CSS code *"display: none;"* in accordance with the

exactly in our study presented model examples. These recommendations relate namely to following institutions:

- Ministry of Economy of the Slovak Republic;
- Ministry of Transport, Construction and Regional Development of the Slovak Republic;
- Ministry of Justice of the Slovak Republic;
- Ministry of Labour, Social Affairs and Family of the Slovak Republic;
- Ministry of Environment of the Slovak Republic;
- Ministry of Culture of the Slovak Republic;
- Ministry of Health of the Slovak Republic;
- Geodesy, Cartography and Cadastre Authority of the Slovak Republic;
- Nuclear Regulatory Authority of the Slovak Republic;
- State Material Reserves of the Slovak Republic;
- National Security Authority.

Finally, as for verifying the set main hypothesis of the study we can conclude that the hypothesis is not valid, so we have to reject it, because from the 23 analyzed homepages of the central state administration bodies in the Slovak Republic only 7 homepages were technically correctly working and were in compliance with legislation in force[32] (state valid as of April 14th, 2014).

References

"Skip Navigation" Links. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-10-25 [cit. 2014-04-14]. Available at: http://webaim.org/techniques/skipnav/.

CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-09-24 [cit. 2014-04-14]. Available at: http://webaim.org/techniques/css/invisiblecontent/.

KOPRLA, M. and J. KOPRLOVÁ. Analýza prístupnosti webových stránok vybraných webových sídiel verejnej správy z pohľadu administratívno-správneho členenia Slovenskej republiky. *Societas et res publica* [online]. 2013, roč. 2, č. 1, pp. 93-160 [cit. 2014-04-14]. ISSN 1338-

---

[32] See *Výnos Ministerstva financií Slovenskej republiky č. 55/2014 Z.z. o štandardoch pre informačné systémy verejnej správy zo 4. marca 2014* [Ministerial Decree of the Ministry of Finance of the Slovak Republic No. 55/2014 Coll. of Standards for Information Systems of Public Administration issued on March 4th, 2014].

6530. Available at: http://serp.fsv.ucm.sk/archive/2013/01/SO-CIETAS-ET-RES-PUBLICA-2013-01.pdf.

KOPRLA, M. Prístupnosť webových stránok ako významný faktor zvyšovania konkurencieschopnosti. In: K. ĎURKOVÁ, A. BOBOVNICKÝ and A. ZAUŠKOVÁ, eds. *Inovácie a vedomostná spoločnosť/digitálny marketing – udržateľný rast a návrat investícií* [CD-ROM]. 1. vyd. Trnava: Univerzita sv. Cyrila a Metoda v Trnave, Fakulta masmediálnej komunikácie, 2012, pp. 49-63. ISBN 978-80-8105-454-9.

Skip Navigation Links (Updated 6/19/2009). In: *JimThatcher.com* [online]. 2014-03-07 [cit. 2014-04-14]. Available at: http://www.jimthatcher.com/skipnav.htm.

Source code of the website of the *Antimonopoly Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.antimon.gov.sk/.

Source code of the website of the *Geodesy, Cartography and Cadastre Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.skgeodesy.sk/.

Source code of the website of the *Government Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.vlada.gov.sk/.

Source code of the website of the *Industrial Property Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: https://www.indprop.gov.sk/.

Source code of the website of the *Ministry of Agriculture and Rural Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.mpsr.sk/.

Source code of the website of the *Ministry of Culture of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.culture.gov.sk/.

Source code of the website of the *Ministry of Defense of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.mod.gov.sk/.

Source code of the website of the *Ministry of Economy of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.economy.gov.sk/.

Source code of the website of the *Ministry of Education, Science, Research and Sport of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minedu.sk/.

Source code of the website of the *Ministry of Environment of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minzp.sk/.

Source code of the website of the *Ministry of Finance of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.finance.gov.sk/.

Source code of the website of the *Ministry of Foreign and European Affairs of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.foreign.gov.sk/.

Source code of the website of the *Ministry of Health of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.health.gov.sk/.

Source code of the website of the *Ministry of Interior of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.minv.sk/.

Source code of the website of the *Ministry of Justice of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.justice.gov.sk/.

Source code of the website of the *Ministry of Labour, Social Affairs and Family of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.employment.gov.sk/.

Source code of the website of the *Ministry of Transport, Construction and Regional Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.telecom.gov.sk/.

Source code of the website of the *National Security Authority* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.nbusr.sk/.

Source code of the website of the *Nuclear Regulatory Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.ujd.gov.sk/.

Source code of the website of the *Office for Public Procurement* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.uvo.gov.sk/.

Source code of the website of the *Slovak Office of Standards, Metrology and Testing* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.unms.sk/.

Source code of the website of the *State Material Reserves of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://www.reserves.gov.sk/.

Source code of the website of the *Statistical Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-14]. Available at: http://slovak.statistics.sk/.

Výnos Ministerstva financií Slovenskej republiky č. 55/2014 Z.z. o štandardoch pre informačné systémy verejnej správy zo 4. marca 2014.

Website (with style sheets and active elements turned off) of the *Ministry of Economy of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.economy.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Finance of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.finance.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Transport, Construction and Regional Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.telecom.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Agriculture and Rural Development of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.mpsr.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Interior of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minv.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Defense of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.mod.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Justice of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.justice.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Foreign and European Affairs of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.foreign.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Labour, Social Affairs and Family of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.employment.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Environment of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minzp.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Education, Science, Research and Sport of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.minedu.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Culture of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.culture.gov.sk/.

Website (with style sheets and active elements turned off) of the *Ministry of Health of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.health.gov.sk/.

Website (with style sheets and active elements turned off) of the *Government Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.vlada.gov.sk/.

Website (with style sheets and active elements turned off) of the *Antimonopoly Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.antimon.gov.sk/.

Website (with style sheets and active elements turned off) of the *Statistical Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://slovak.statistics.sk/.

Website (with style sheets and active elements turned off) of the *Geodesy, Cartography and Cadastre Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.skgeodesy.sk/.

Website (with style sheets and active elements turned off) of the *Nuclear Regulatory Authority of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.ujd.gov.sk/.

Website (with style sheets and active elements turned off) of the *Slovak Office of Standards, Metrology and Testing* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.unms.sk/.

Website (with style sheets and active elements turned off) of the *Office for Public Procurement* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.uvo.gov.sk/.

Website (with style sheets and active elements turned off) of the *Industrial Property Office of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: https://www.indprop.gov.sk/.

Website (with style sheets and active elements turned off) of the *State Material Reserves of the Slovak Republic* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.reserves.gov.sk/.

Website (with style sheets and active elements turned off) of the *National Security Authority* [online]. 2014 [cit. 2014-04-13]. Available at: http://www.nbusr.sk/.

Zákon č. 575/2001 Z.z. o organizácii činnosti vlády a organizácii ústrednej štátnej správy v platnom znení.

Ing. Jana Koprlová, PhD.

Faculty of Law
Trnava University in Trnava
Kollárova 10
917 01 Trnava
Slovak Republic
jana.koprlova@gmail.com