Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central Public Administration Bodies in the Prešov Region[1]

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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 public administration bodies in the Prešov Region 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 public administration bodies in the Prešov Region 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 Public Administration Bodies; Compliance with Legislation in Force; the Prešov Region; 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.

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[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 public administration bodies in the Prešov Region. In the context of the research questions we define the main hypothesis as follows: *Homepages of the central public administration bodies in the Prešov Region 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]

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[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. 2016-06-01]. Available at: http://webaim.org/techniques/skipnav/; and KOPRLOVÁ, J. Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slovak Republic. *Societas et iurisprudentia* [online].

✦ 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;
```

2014, roč. 2, č. 2, pp. 134-135 [cit. 2016-06-01]. ISSN 1339-5467. Available at: http://sei.iuridica.truni.sk/archive/2014/02/SOCIETAS-ET-IURISPRUDENTIA-2014-02.pdf.

4 CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2014-12-11 [cit. 2016-06-01]. Available at: http://webaim.org/techniques/css/invisiblecontent/; and KOPRLOVÁ, J. Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slovak Republic. *Societas et iurisprudentia* [online]. 2014, roč. 2, č. 2, p. 135 [cit. 2016-06-01]. ISSN 1339-5467. Available at: http://sei.iuridica.truni.sk/archive/2014/02/SOCIETAS-ET-IURISPRUDENTIA-2014-02.pdf.

```
      overflow: hidden;
    }.
```

By 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]

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[5] CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2014-12-11 [cit. 2016-06-01]. Available at: http://webaim.org/techniques/css/invisiblecontent/.

[6] Skip Navigation Links (Updated 6/19/2009). In: *JimThatcher.com* [online]. 2014-09-16 [cit. 2016-06-01]. Available at: http://www.jimthatcher.com/skipnav.htm; and KOPRLO-

➕ HTML code:

```
<body>
<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 public administration bodies in the Prešov Region

Our analysis of applying the skip navigation links on the websites of the central public administration bodies in the Prešov Region 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 early March 2016 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 public administration bodies in the Prešov Region, while research

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VÁ, J. Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slovak Republic. *Societas et iurisprudentia* [online]. 2014, roč. 2, č. 2, pp. 136-137 [cit. 2016-06-01]. ISSN 1339-5467. Available at: http://sei.iuridica.truni.sk/archive/2014/02/SOCIETAS-ET-IURISPRUDENTIA-2014-02. pdf.

[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. 2015-09-01]. 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.

sample was defined by all homepages of all the central public administration bodies in the Prešov Region, namely of:[8]

- Central public administration body of Stará Ľubovňa (http://www.staralubovna.sk/);
- Central public administration body of Stropkov (http://www.stropkov.sk/);
- Central public administration body of Svidník (http://www.svidnik.sk/);
- Central public administration body of Vranov nad Topľou (https://www.vranov.sk/);
- Central public administration body of Bardejov (http://www.bardejov.sk/);
- Central public administration body of Humenné (https://www.humenne.sk/);
- Central public administration body of Kežmarok (http://www.kezmarok.sk/);
- Central public administration body of Levoča (http://www.levoca.sk/);
- Central public administration body of Medzilaborce (https://www.medzilaborce-urad.sk/);
- Central public administration body of Poprad (https://www.poprad.sk/);
- Central public administration body of Prešov (http://www.presov.sk/);
- Central public administration body of Sabinov (http://www.sabinov.sk/);
- Central public administration body of Snina (http://www.snina.sk/).

Central public administration body of Stará Ľubovňa

Next figure displays homepage of the central public administration body of Stará Ľubovňa, with style sheets and active elements turned off. There is no skip link applied.

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[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].

Figure 1 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Stará Ľubovňa

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Stará Ľubovňa* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.staralubovna.sk/.
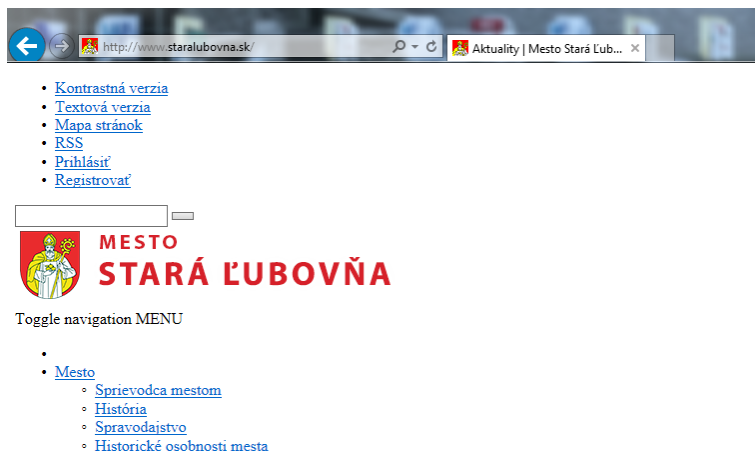
Analyzing the homepage of the central public administration body of Stará Ľubovňa in context of using the skip navigation links following key findings could be detected:[9]

- Number of links before the main content: 76 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 central public administration body of Stará Ľubovňa. 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".

Central public administration body of Stropkov

Next figure displays homepage of the central public administration body of Stropkov, with style sheets and active elements turned off. There is no skip link applied.

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[9] Source code of the central public administration body website of *Stará Ľubovňa* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.staralubovna.sk/.

Figure 2 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Stropkov

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Stropkov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.stropkov.sk/.
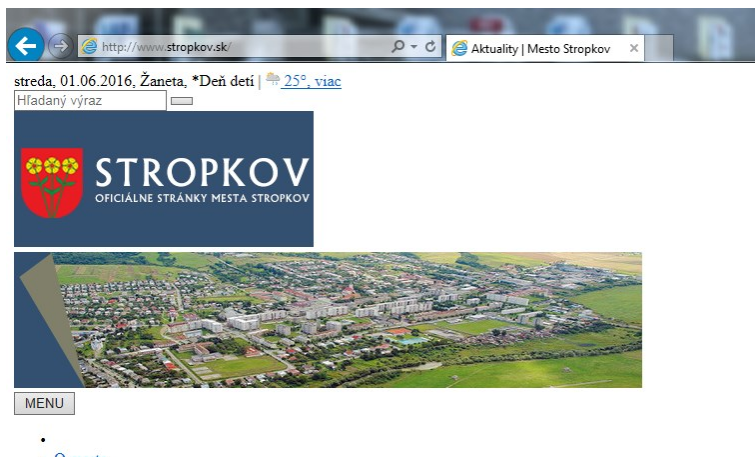
Analyzing the homepage of the central public administration body of Stropkov in context of using the skip navigation links following key findings could be detected:[10]

- Number of links before the main content: 70 links;
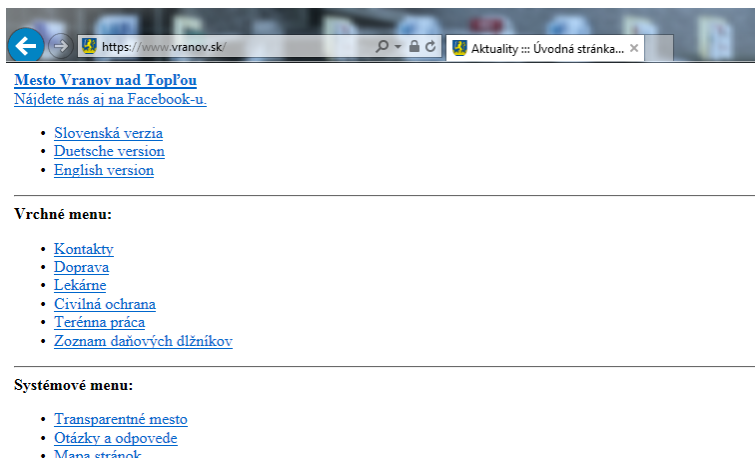- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the central public administration body of Stropkov. 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".

Central public administration body of Svidník

Next figure displays homepage of the central public administration body of Svidník, with style sheets and active elements turned off. There is no skip link applied.

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[10] Source code of the central public administration body website of *Stropkov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.stropkov.sk/.

Figure 3 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Svidník

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Svidník* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.svidnik.sk/.

Analyzing the homepage of the central public administration body of Svidník in context of using the skip navigation links following key findings could be detected:[11]

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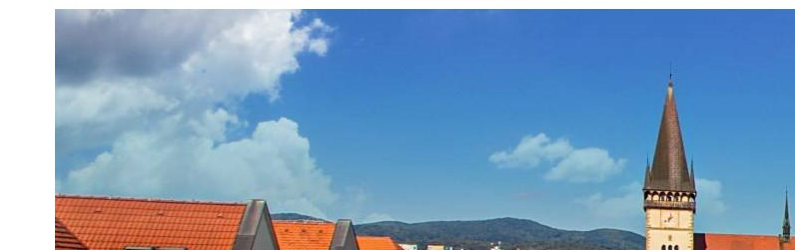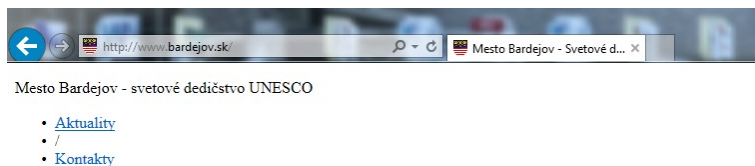- Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the central public administration body of Svidník. 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".

Central public administration body of Vranov nad Topľou

Next figure displays homepage of the central public administration body of Vranov nad Topľou, with style sheets and active elements turned off. There is no skip link applied.

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[11] Source code of the central public administration body website of *Svidník* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.svidnik.sk/.

Figure 4 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Vranov nad Topľou

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Vranov nad Topľou* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.vranov.sk/.

Analyzing the homepage of the central public administration body of Vranov nad Topľou in context of using the skip navigation links following key findings could be detected:[12]

+ Number of links before the main content: 100 links;
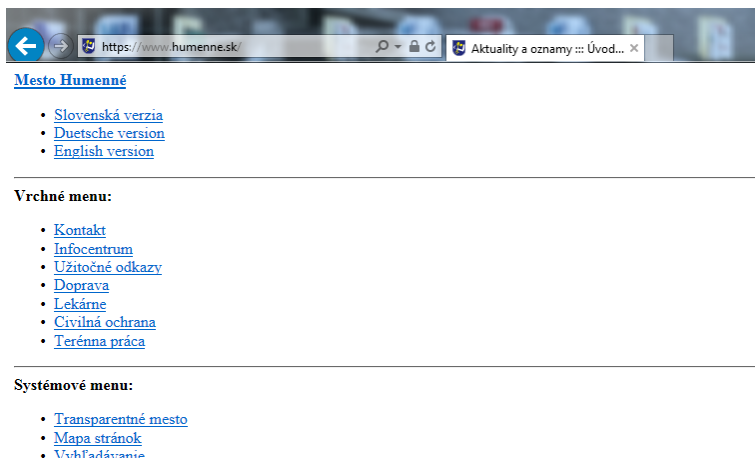+ Number of skip links: 0 links.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the central public administration body of Vranov nad Topľou. 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".

Central public administration body of Bardejov

Next figure displays homepage of the central public administration body of Bardejov, with style sheets and active elements turned off. There is no skip link applied.

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[12] Source code of the central public administration body website of *Vranov nad Topľou* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.vranov.sk/.

Figure 5 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Bardejov

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Bardejov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.bardejov.sk/.

Analyzing the homepage of the central public administration body of Bardejov in context of using the skip navigation links following key findings could be detected:[13]

+ Number of links before the main content: 208 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 central public administration body of Bardejov. 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".

Central public administration body of Humenné

Next figure displays homepage of the central public administration body of Humenné, with style sheets and active elements turned off. There is no skip link applied.
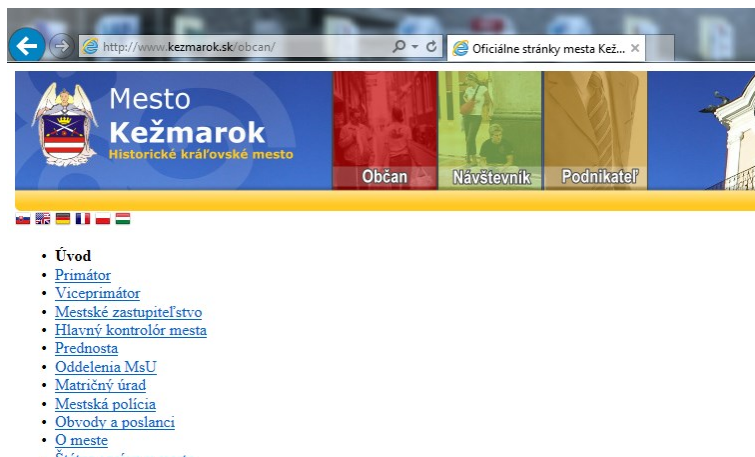
---

[13] Source code of the central public administration body website of *Bardejov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.bardejov.sk/.

Figure 6 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Humenné

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Humenné* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.humenne.sk/.

Analyzing the homepage of the central public administration body of Humenné in context of using the skip navigation links following key findings could be detected:[14]

🞥 Number of links before the main content: 98 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 central public administration body of Humenné. 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".

Central public administration body of Kežmarok

Next figure displays homepage of the central public administration body of Kežmarok, with style sheets and active elements turned off. There is no skip link applied.

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[14] Source code of the central public administration body website of *Humenné* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.humenne.sk/.

Figure 7 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Kežmarok

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Kežmarok* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.kezmarok.sk/.

Analyzing the homepage of the central public administration body of Kežmarok in context of using the skip navigation links following key findings could be detected:[15]

✦ Number of links before the main content: 73 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 central public administration body of Kežmarok. 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".

Central public administration body of Levoča

Next figure displays homepage of the central public administration body of Levoča, with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

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[15] Source code of the central public administration body website of *Kežmarok* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.kezmarok.sk/.

Figure 8 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Levoča
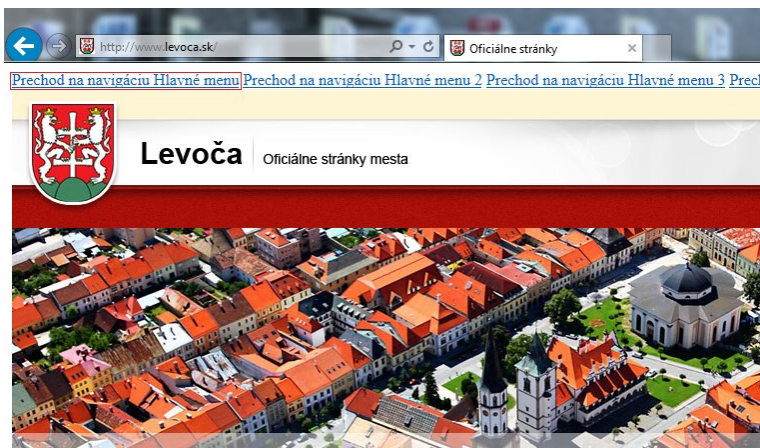
Source: Website (with style sheets and active elements turned off) of the central public administration body of *Levoča* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.levoca.sk/.

Analyzing the homepage of the central public administration body of Levoča in context of using the skip navigation links following key findings could be detected:[16]

- Number of links before the main content: 18 links;
- Number of skip links: 5 links;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <div class="hidden-special">
    <a href="#m_153962" title="Prechod na navigáciu Hlavné menu">Prechod na navigáciu Hlavné menu</a>
    <a href="#m_119811" title="Prechod na navigáciu Hlavné menu 2">Prechod na navigáciu Hlavné menu 2</a>
    <a href="#m_131765" title="Prechod na navigáciu Hlavné menu 3">Prechod na navigáciu Hlavné menu 3</a>
    <a href="#m_120182" title="Prechod na navigáciu Hlavné menu 4">Prechod na navigáciu Hlavné menu 4</a>
  ```

---

[16] Source code of the central public administration body website of *Levoča* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.levoca.sk/.

```
     <a href="#m_136438" title="Prechod na navigáciu Hlavné menu
5">Prechod na navigáciu Hlavné menu 5</a>
     </div>
     <a id="m_153962"></a>
     <a id="m_119811"></a>
     <a id="m_131765"></a>
     <a id="m_120182"></a>
     <a id="m_136438"></a>;
```
✚ CSS code of skip links:
```
.hidden-special {
    height: 0;
    overflow: hidden;
    margin: 0;
    padding: 0;
    border: 0;
}.
```

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the central public administration body of Levoča, 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 *"height: 0;"* 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.

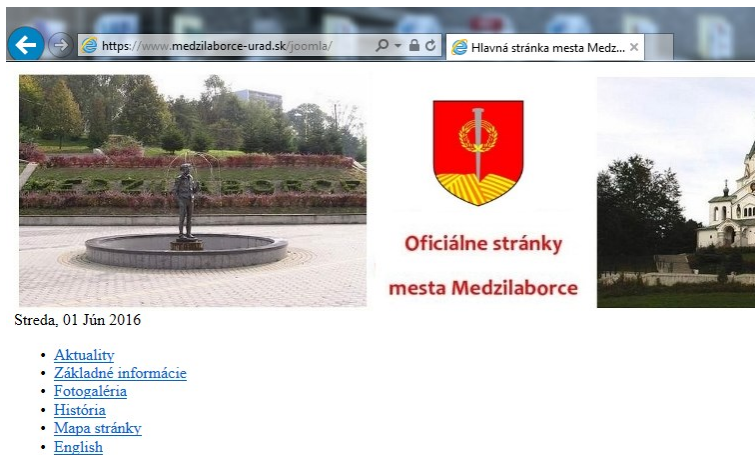## *Central public administration body of Medzilaborce*

Next figure displays homepage of the central public administration body of Medzilaborce, with style sheets and active elements turned off. There is no skip link applied.

Analyzing the homepage of the central public administration body of Medzilaborce in context of using the skip navigation links following key findings could be detected:[17]

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[17] Source code of the central public administration body website of *Medzilaborce* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.medzilaborce-urad.sk/.

- Number of links before the main content: 62 links;
- Number of skip links: 0 links.

Figure 9 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Medzilaborce

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Medzilaborce* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.medzilaborce-urad.sk/.

According to the presented results we can conclude that there is no skip navigation mechanism applied on the analyzed homepage of the central public administration body of Medzilaborce. 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".

Central public administration body of Poprad

Next figure displays homepage of the central public administration body of Poprad, with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.
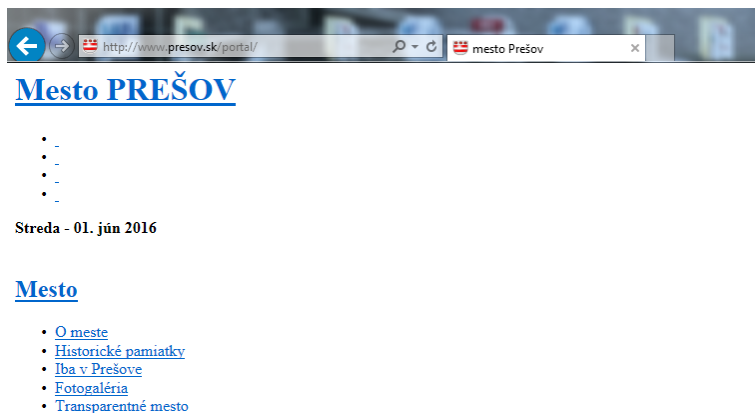
Analyzing the homepage of the central public administration body of Poprad in context of using the skip navigation links following key findings could be detected:[18]

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[18] Source code of the central public administration body website of *Poprad* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.poprad.sk/.

- Number of links before the main content: 60 links;
- Number of skip links: 2 links;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  <div class="hidden-special">
    Prechod na navigáciu block menu
    Prechod na navigáciu Hlavné menu
  </div>
  [*Missing selector id="m_00"*]
  ;
- CSS code of skip links:
  .hidden-special {
    height: 0;
    overflow: hidden;
    margin: 0;
    padding: 0;
    border: 0;
  }.

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the central public administration body of Poprad, but it works technically incorrectly. In relation to our finding we can recommend to replace element *"Prechod na navigáciu block menu"* with element *"Prejsť na obsah stránky"*, then to add the attribute *tabindex="-1"* to website's target elements and to replace CSS code *"height: 0;"* 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.

Figure 10 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Poprad

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Poprad* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.poprad.sk/.

Central public administration body of Prešov

Next figure displays homepage of the central public administration body of Prešov, with style sheets and active elements turned off. There is no skip link applied.
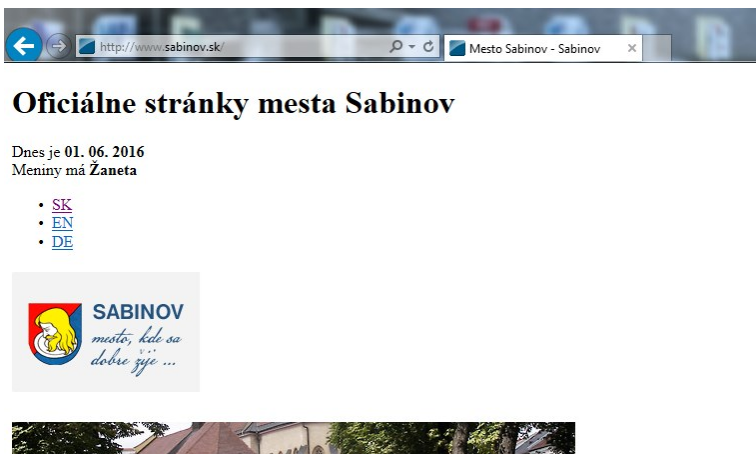
Analyzing the homepage of the central public administration body of Prešov in context of using the skip navigation links following key findings could be detected:[19]

- Number of links before the main content: 69 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 central public administration body of Prešov. 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".

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[19] Source code of the central public administration body website of *Prešov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.presov.sk/.

Figure 11 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Prešov

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Prešov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.presov.sk/.

Central public administration body of Sabinov

Next figure displays homepage of the central public administration body of Sabinov, with style sheets and active elements turned off. There is no skip link applied.

Analyzing the homepage of the central public administration body of Sabinov in context of using the skip navigation links following key findings could be detected:[20]

- Number of links before the main content: 67 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 central public administration body of Sabinov. 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".

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[20] Source code of the central public administration body website of *Sabinov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.sabinov.sk/.

Figure 12 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Sabinov

Source: Website (with style sheets and active elements turned off) of the central public administration body of *Sabinov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.sabinov.sk/.

Central public administration body of Snina

Next figure displays homepage of the central public administration body of Snina, with style sheets and active elements turned off. The analyzed skip link is marked by red rectangle.

Analyzing the homepage of the central public administration body of Snina in context of using the skip navigation links following key findings could be detected:[21]

- Number of links before the main content: 43 links;
- Number of skip links: 2 links;
- Number of links before the first skip link: 0 links;
- Visual display of skip links: hidden;
- HTML code of skip links:
  ```
  <ul class="access">
    <li>
      <a href="/#content-link">Rovno na obsah</a>
    </li>
  ```

---

[21] Source code of the central public administration body website of *Snina* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.snina.sk/.

```
<li>
  <a href="/#menu-link">Rovno na menu</a>
</li>
</ul>
<h3 class="access">
  <a name="menu-link" id="menu-link">
    <span>Život v meste</span>
  </a>
</h3>
<a name="content-link" id="content-link"></a>;
```

➕ CSS code of skip links:

```
#header h1 span,
.access,
.diskuze th,
.logo span {
  position: absolute;
  left: -2000px;
  width: 1px;
  height: 1px;
  overflow: hidden;
}
#menu h3.access {
  position: relative;
  width: auto;
  height: auto;
  left: auto;
  text-transform: uppercase;
  text-align: left;
  padding: 15px 10px 3px !important;
  margin-bottom: 15px;
}
#menu h3.access a,
#menu h3.access span {
  color: #fff;
  text-transform: uppercase;
  text-decoration: none;
  font-weight: 400;
  font-size: 25px;
  font-family: 'Noto Sans';
}.
```

Figure 13 Website (with style sheets and active elements turned off) of the Central Public Administration Body of Snina
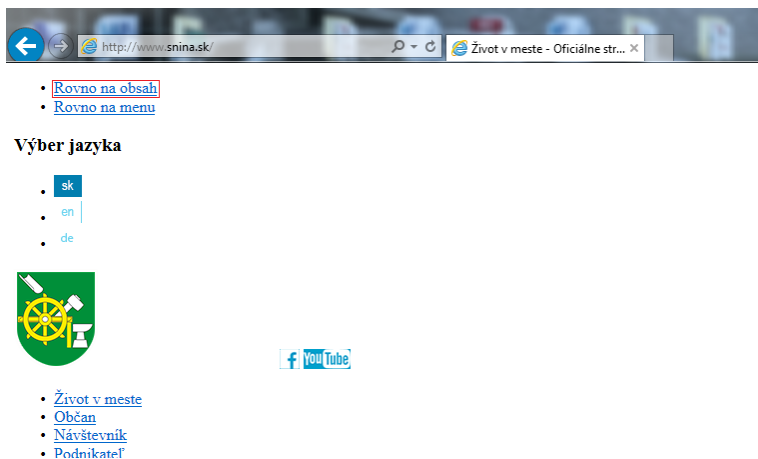
Source: Website (with style sheets and active elements turned off) of the central public administration body of *Snina* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.snina.sk/.

According to the presented results we can conclude that there is a skip navigation mechanism applied on the analyzed homepage of the central public administration body of Snina which works technically correctly. In relation to our finding we can recommend 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.

Conclusion

In the study "Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central Public Administration Bodies in the Prešov Region" 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 public administration bodies in the Prešov Region 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 public*

administration bodies in the Prešov Region 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 March 1st, 2016), 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 only one central public administration body:

+ Central public administration body of Snina.

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 only two central public administration bodies:

+ Central public administration body of Levoča;
+ Central public administration body of Poprad.

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 ten central public administration bodies, which means the majority of analyzed central public administration bodies in the Prešov Region:

+ Central public administration body of Stará Ľubovňa;
+ Central public administration body of Stropkov;
+ Central public administration body of Svidník;
+ Central public administration body of Vranov nad Topľou;
+ Central public administration body of Bardejov;
+ Central public administration body of Humenné;
+ Central public administration body of Kežmarok;
+ Central public administration body of Medzilaborce;
+ Central public administration body of Prešov;
+ Central public administration body of Sabinov.

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 13 analyzed homepages of the central public administration bodies in the Prešov Region only 1 homepage was technically correctly working and was in compliance with legislation in force[22] (state valid as of March 1st, 2016).

References

"Skip Navigation" Links. In: *WebAIM: Web Accessibility in Mind* [online]. 2013-10-25 [cit. 2016-06-01]. Available at: http://webaim.org/techniques/skipnav/.

CSS in Action: Invisible Content Just for Screen Reader Users. In: *WebAIM: Web Accessibility in Mind* [online]. 2014-12-11 [cit. 2016-06-01]. 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. 2015-09-01]. ISSN 1338-6530. 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.

KOPRLOVÁ, J. Applying the Skip Navigation Links in the Context of the Websites' Accessibility of Central State Administration Bodies in the Slovak Republic. *Societas et iurisprudentia* [online]. 2014, roč. 2, č. 2, pp. 133-178 [cit. 2016-06-01]. ISSN 1339-5467. Available at: http://sei.iuridica.truni.sk/archive/2014/02/SOCIETAS-ET-IURISPRUDEN-TIA-2014-02.pdf.

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[22] 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].

Skip Navigation Links (Updated 6/19/2009). In: *JimThatcher.com* [online]. 2014-09-16 [cit. 2016-06-01]. Available at: http://www.jimthatcher.com/skipnav.htm.

Source code of the central public administration body website of *Stará Ľubovňa* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.staralubovna.sk/.

Source code of the central public administration body website of *Stropkov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.stropkov.sk/.

Source code of the central public administration body website of *Svidník* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.svidnik.sk/.

Source code of the central public administration body website of *Vranov nad Topľou* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.vranov.sk/.

Source code of the central public administration body website of *Bardejov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.bardejov.sk/.

Source code of the central public administration body website of *Humenné* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.humenne.sk/.

Source code of the central public administration body website of *Kežmarok* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.kezmarok.sk/.

Source code of the central public administration body website of *Levoča* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.levoca.sk/.

Source code of the central public administration body website of *Medzilaborce* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.medzilaborce-urad.sk/.

Source code of the central public administration body website of *Poprad* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.poprad.sk/.

Source code of the central public administration body website of *Prešov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.presov.sk/.

Source code of the central public administration body website of *Sabinov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.sabinov.sk/.

Source code of the central public administration body website of *Snina* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.snina.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 central public administration body of *Stará Ľubovňa* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.staralubovna.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Stropkov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.stropkov.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Svidník* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.svidnik.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Vranov nad Topľou* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.vranov.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Bardejov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.bardejov.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Humenné* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.humenne.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Kežmarok* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.kezmarok.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Levoča* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.levoca.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Medzilaborce* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.medzilaborce-urad.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Poprad* [online]. 2016 [cit. 2016-06-01]. Available at: https://www.poprad.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Prešov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.presov.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Sabinov* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.sabinov.sk/.

Website (with style sheets and active elements turned off) of the central public administration body of *Snina* [online]. 2016 [cit. 2016-06-01]. Available at: http://www.snina.sk/.

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

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