

Website creation script technologies – a comparative analysis of compatibility with the W3C standards in Polish furniture industry portals and vortals

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Abstract : *Website creation script technologies – a comparative analysis of compatibility with the W3C standards in Polish furniture industry portals and vortals* In this article were presented standard organizations working on the needs of Internet, and introduced the basic script technologies used to building of web pages for which exist standards defined by the organization W3C. It shows a short profile of portals and the vortals from the furniture industry, which were chosen and analyzed. The main part of this paper is the analysis of compliance of technologies used to the building of these services with standards, which were defined by W3C organization. This article contains the synthetic discussion of got results and recapitulation.

keywords: W3C standards, website creation script technologies, furniture industry, internet portal and vortal

INTRODUCTION

In the last years, the Internet has transformed from ‘the information society phenomenon’, as it was called a dozen years ago, into a permanent element of everyday life. Using the Internet is just necessary, and not only suggested. Internet is a global network used by people from different countries and different cultures and speaking different languages. This fact is the reason for the permanently increasing importance of standardisation for communication tools, www sites being a perfect example thereof. This article concentrates on compatibility of script technologies used for developing furniture industry websites, with standards.

STANDARDS ORGANISATIONS IN THE INTERNET

In the Internet, not a single standard is valid, which would be imposed by any body¹. Yet, in practice, several organisations are active determining Internet operation specifications and standards. Besides W3C, such best known bodies are:

- IETF (Internet Engineering Task Force) - An informal international society of individuals interested in determination of technical and organisational standards for the Internet. The IETF does not dispose of any formal power, still, it is just the IETF work outcomes that have decisive effects on the future Internet shape. The IETF generates a special set of documents, so-called RFC (Request For Comments) containing the entire Internet wisdom in questions and answers, which means: - technical and organisational standards creating this network. The IETF is open for new participants, any interested individual may access.
- ISO (International Organization for Standardisation) - A non-governmental organisation for local standardisation bodies. ISO members are not delegated by governments despite some ISO member organisation being incorporated in government structures. Strategic decisions are made by the General Assembly during its annual meetings.

¹ The only standard adopted as required and commonly used on the Internet is the set of TCP/IP protocols. Without this protocol support installed, computers can not connect with Internet.

Standardization of the documents in the Internet is an issue of a high importance. As in the entire information technology, documents in the Internet must be interpreted unambiguously. No room for any conjecture as to the document content. Standards for script technologies as applied for construction of websites are worked out by the W3C organization shown below.

W3C - WORLD WIDE WEB CONSORTIUM

This organization is active in the area of determination of standards for construction of WWW sites, transmission, and interpretation thereof by browsers. The organisation was founded 1994 by Tim Berners-Lee, the originator of WWW services who also created the very first Internet browser. At present, the W3C member list contains more than 400 organisations, companies, governmental agencies, and universities from all over the world. The W3C is divided in numerous discussion teams for defined tasks. Teams are composed of experts from W3C members, whereas members are companies and all types of organisations interested in the establishment of the standard involved. Standards (called 'recommendations') published by the W3C have no legal power, which could impose the use thereof but the very influence of the organisation can not be omitted. The organisation makes available tools for verifying the code (HTML, XML, CSS) compliance with the defined standard. Such tools were applied for carrying out the analysis used in this paper.

CHARACTERISTICS OF ANALYZED TECHNOLOGIES

HTML

This language is listed among the oldest technologies designed for website construction. As such, HTML is the basic and commonly applied technology. HTML consists of markup tags: commands in angle brackets such as <A>, with parameters added. HTML is an interpreted language: the browser displays (builds) the website based on markup tags, by their sequence in the file describing the involved site. HTML has a specific feature: errors are not generated - that statement is false for all the other programming languages. Any error in the HTML code is ignored [2]. That feature makes influence on the content of the displayed page, but does not give reason to stop displaying. HTML (Hypertext Markup Language) is a document description language - a set of markup tags describing the document structure as well as object location and formatting within the site. Besides, HTML is independent of the equipment and software platform. A site-describing file is an ordinary text file - that is the reason that the file can be edited in any text editor. At present, the HTML standard² is not under development because the work concentrates on XHTML, with the new HTML version complying with the XML specification³. A conclusion can be drawn that a majority of individuals creating their own websites started their Internet adventure a similar way - from learning the HTML programming software.

XHTML

² Information can be found on the Internet and in some references that work is under way on HTML version 5 - see <http://www.knowmore.pl/internet/html5-nowy-standard> - the cited information was available on 28 July 2010.

³ XML (eXtensible Markup Language) – another standard developed by W3C. Instead of applying defined markup tags, designers may create own markup tags with any name. That is the place of origin for XML power and universality as the format for easy storage of any data.

The XHTML (Extensible Hypertext Markup Language) specification does not contain any markup tag. The specification only defines the amendments necessary for a HTML document in order to convert it into a XHTML document. In practice, a number of differences exist: formal requirements, including the necessity to write markup tag names with small letters only, and quotation marks for names. Documents written in XHTML must be univocally and with no problem interpretable by other users, that is why they require so-called 'validation' - a verification whether they really comply with the specification. Such validation is in every user's interest because this standard is widely used for e-commerce (e.g. web stores). The specification defines three language dialects: strict, transitional, frameset (as for HTML). The transitional⁴ dialect accepts element names written with small letters or capital letters; quotation marks for attribute values are optional as closing some elements is. The strict dialect is more restrictive than the transitional dialect. The requirement list for strict dialect includes: closing of all the elements listed as 'closing optional', double quotation marks for attribute values, correct element embedding, and avoiding elements applied for visual text formatting (colours, fonts types, bold characters, italics, etc. - those effects should be obtained with application of CSS). Frameset - the third dialect - is only used for building the warp for documents created with frames. At present, two standards have been defined: : XHTML 1.0, XHTML 1.1, with the first one applied nearly in all cases. Work is under way from 2006 on the specification version 2.0⁵ - so far, no official standard has been published⁶.

CSS

CSS, or Cascade Style Sheets allow site designers to use typographic styles and instructions for site elements. The sheets allow to determine traditional attributes such as font size, line spacing, character spacing. Besides, style sheets provide with determination methods for margin indents and element positions. A single style sheet can be connected with numerous HTML sites - this solution guarantees that one modification is effective for each copy of the involved element on just one site but also can be effective for hundreds or thousands of sites [2]. The cascade style sheet designers had an objective of connecting a flexible www site style control method and single elements within sites on one side with a correct style hierarchy on the other side [1]. At present, CSS version 2 is valid und used.

SHORT VIEW ON WEB SERVICES FROM THE FURNITURE INDUSTRY

Polish web services dedicated to the furniture sector issues have a specific feature: a majority of those services belong to furniture manufacturers or commercial companies (furniture trading companies). This paper concentrates those services: portals and vortals. The following portals and vortals were selected for analysis: www.meblarstwo.pl, www.meble.pl, www.emebel.pl, www.meble.com.pl, www.4meble.pl, www.emeble.pl, www.infomeb.pl, www.stolarstwo.pl, www.portalmeblowy.pl, www.nowemeble.pl, www.meblewpolsce.pl, www.polskie-meble.pl, www.meblepolska.eu, www.euromeble.net. The range of the analysis in this paper was expanded in the relation to the author's previous works [ref. 3 and 4].

Those portals and vortals were analysed for compliance of the applied technologies with W3C standards.

ANALYSIS OF SCRIPT TECHNOLOGY COMPATIBILITY WITH W3C STANDARDS

⁴ In Table 1, this dialect is marked as 'Trans.'

⁵ Description can be found at www.w3.org/xhtml2 - (status of July 2010).

⁶ The 2.0 standard introduces numerous solutions resulting in incompatibility thereof with earlier versions.

The table below contains the analysis of code used in furniture portals and vortals: compatibility of script technologies with W3C-defined standards. The analysis was made based on validators available from: <http://validator.w3.org> - for HTML/ XHTML and <http://jigsaw.w3.org/css-validator> - for CSS compatibility.

The compatibility criterion was the number of errors and suggestions⁷ reported by validators for the sites under analysis. The analysis concentrated on source codes for websites belonging to furniture portals and vortals. In case of HTML and XHTML, codes were compared to the standard listed in the table; in case of CSS, the CSS2 standard was the reference point. The table represents the state as of beginning August 2010, when the analysis was performed.

Table 1: Compatibility of script technologies with W3C standards for selected websites.

Site address	Compatibility with standard				
	HTML, XHTML			CSS	
	Stated compatibility	Errors	Suggestions	Errors	Suggestions
www.meblarstwo.pl	XHTML 1.0 Trans.	14	3	38	471
www.meble.pl	XHTML 1.0 Trans.	34	9	250	1671
www.emebel.pl	XHTML 1.0 Trans.	3	3	1	71
www.meble.com.pl	HTML 4.01 Trans.	114	58	15	76
www.4meble.pl	HTML 4.01 Trans.	244	200	8	52
www.emeble.pl	HTML 4.01 Trans.	29	17	2	144
www.infomeb.pl	XHTML 1.0 Trans.	11	0	11	207
www.stolarstwo.pl	XHTML 1.0 Trans.	77	4	25	845
www.portalmeblowy.pl	XHTML 1.0 Trans.	63	9	2	57
www.nowemeble.pl	HTML 4.01 Strict	11	3	3	173
www.meblewpolsce.pl	HTML 4.01 Trans.	56	17	3	170
www.polskie-meble.pl	XHTML 1.0 Trans.	15	6	28	387
www.meblepolska.eu	HTML 4.0 Trans.	59	106	3	164
www.euromeble.net	HTML 4.01 Trans.	179	90	5	102

Source: own research

The above analyzed furniture industry portals and vortals were specific for, on one hand: a high differentiation of their compliance level, and on the other hand: a low differentiation of standard versions that their codes were compliant with. Among fourteen sites under analysis, seven were prepared applying a standard HTML 1.0, and seven a standard XHTML. Only one site applied a strict dialect of HTML 4.01 (www.nowemeble.pl). Not a single site was built fully compliant with standards. This status should be ranked very unsatisfactory. The highest compliance level of was that of the www.infomeb.pl site.

Indisputably, two sites, www.4meble.pl and www.meble.pl ranked lowest. For the first site, the 'HTML compatibility' category reported 244 errors and 200 suggestions. For the second site, the 'CSS compatibility' category reported 250 errors and as much as 1671 suggestions. This situation should be understood as designers' negligence.

⁷ Both in their English version and Polish version, validators (in particular CCS validators) reported 'errors' and 'warnings' indicating departures from the standard. In this paper, 'warnings' are called 'suggestions' because in the presented sites, validators suggested ways to remove the incorrect structures.

CONCLUSION

The furniture portals and vortals were designed with application of up-to-date HTML, XHTML and CSS script technologies. Unfortunately, those sites rank low for compliance with the script standards applied. Not a single site could prove a full compatibility with the analyzed standards. Website designers from this sector still have a lot of work to do before the sites are compliant with those standards.

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Streszczenie : *Technologie skryptowe kreowania witryn internetowych - analiza porównawcza zgodności ze standardami W3C w polskich portalach i vortalach branży meblarskiej.* W opracowaniu przedstawiono organizacje standaryzacyjne działające na potrzeby Internetu oraz podstawowe technologie skryptowe budowy stron internetowych, dla których istnieją standardy zdefiniowane przez organizację W3C. Zasadniczą część artykułu stanowi analiza zgodności technologii wykorzystanych do budowy tychże serwisów z standardami wyznaczonymi przez organizację W3C. Zamieszczono także syntetyczne omówienie uzyskanych wyników oraz krótkie podsumowanie.

Słowa kluczowe : standardy W3C, technologie skryptowe budowy witryn, branża meblarska, portal i vortal internetowy,

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