SAP Accessibility and User Experience

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Wouldn’t it be great if users could access software and its functionality as naturally and efficiently as a humming bird gets nectar from a flower? Accessibility refers to the possibility for everyone, including and especially people with disabilities, to access and use technology and information products. SAP has long made this a priority. This post summarizes key facts about accessibility at SAP, and provides links to further resources on accessibility that were previously published on the SAP Design Guild.

Accessibility and User Experience – Same or Different?

What do user experience and accessibility have in common? If you look at accessibility regulations and laws, such as U.S. Section 508 or the WCAG (Web Content Accessibility Guidelines) or the BITV (Barrierefreie Informationstechnik-Verordnung / Barrier-Free Information Technology Regulation), you will find the same requirements for self-descriptiveness, system feedback, error avoidance, consistent user interfaces, and control and supervision as those described in known user experience standards and norms such as the ISO 9241 series. Useable applications are the fundamental basis of accessibility, and all user groups benefit from them. But user groups with special needs, such as blind users who depend on the screen reader, or visually-impaired users who work with a modified color scheme, sometimes do not have enough options for compensating poor usability. In addition to the typical usability aspects, there are also issues that are more specific to accessibility, such as the availability of equivalent alternatives to graphics, color information, video, or audio. Whenever users attach assistive technology (such as screen reader software, magnification software, special keyboards, or other forms of special hardware), they need to use programs that recognize or derive the user interface information, structures, or relationships.

Different Perspectives on Accessibility

According to the World Health Organization (WHO), there are more than 1 billion people with disabilities worldwide in 2014. 240 million of these people are visually impaired and on top of this, 45 million people are blind. The aging of the working population does also challenge the labor markets: e.g. US studies show that in 2016 33% of their working population will be aged 55 years and older. This population needs accessibility features due to aging. In view of the sheer numbers of people affected by disabilities worldwide, considerable efforts have to be made at both the national and international level to address the challenges they face. As a result, awareness of the legitimate demands of older people and people with disabilities to take an active part in everyday life is no longer restricted to interest groups, consumer organizations, and the public sector, but also has consequences for the actions of business enterprises. The private sector has recognized the economic importance of this ever increasing market segment and is becoming increasingly conscious of the requirements of this group of users. There is a growing global awareness of the requirements of people with disabilities and older people, but this does not mean that all countries have a shared or even similar perception of the concept of accessibility. Some countries impose stricter laws and regulations, while some are less rigid. Some countries place a greater focus on the actual implementation of accessibility than others. The legal requirements that form the basis for the practical implementation of accessibility differ between countries. Legislative competence rests in the sovereignty of each state, and if different states introduce different accessibility regulations, this can cause problems for enterprise software that is used around the world. If regulations differ from country to country or even contradict each other, a company must decide which regulations have priority for its software. Global companies – like SAP – support moves toward the harmonization of legislation in order to avoid this situation, since it is not possible to fulfill all accessibility legislation in all countries.

Accessibility at SAP

Accessibility at SAP refers to the possibility for everyone, including and especially people with disabilities, to access and use technology and information products. SAP gives guidance about how to support and build products that meet the market affordance via the "Product Standard Accessibility", which follows the recommendations of WCAG 2.0 Level A and AA requirements as well as the US Section508 1194.21 and 1194.22. But that does not mean that every SAP product is accessible. To learn the actual accessibility status of a certain product with regards to WCAG, BITV or US Section508, SAP issues accessibility status documents to customers. These documents reflect whether certain public requirements are supported, not supported, partly supported or not applicable in the respective product. A number of accessibility experts in the SAP Accessibility Competence Center are working on creating SAP-internal guidelines, developing manual and automated test methodologies, and training developers to develop applications with reference to the SAP Accessibility Standard. Accessibility is a topic and quality characteristic that is firmly reflected in our quality assurance processes. The SAP status documents that are available to our customers make our achievements reaching the SAP Accessibility Standard transparent to them. But there is no end in sight to our efforts. One reason is that there are always new products, applications, or further developments that need to become barrier-free. Secondly, new questions continue to pop up, such as: (How) can we make mobile devices (like smartphones and tablets) accessible, and which new or revived topics (for example, speech input) can help accessibility?

Front-End Requirements and Infrastructure for Accessibility

There is a prerequisite set of front-end requirements and settings required in order to use the accessibility features within SAP's solutions. These requirements are documented in SAP note 1139953 – Requirements and Infrastructure for Accessibility, which covers the following topics:

- Recommended platform for accessibility
- System requirements and settings for accessibility
- Supported screen reader(s and versions)

Should you have any further questions, please contact accessibility@sap.com

Related Posts

- Vision and Visual Disabilities – An Introduction A brief introduction into the physiology of vision, and some common visual disabilities.
- Accessibility Links and References A collection of online resources around accessibility – legislation, guidelines, tools, assistive technology, and relevant disabilities.
- Accessibility Glossary Terms and definitions in accessibility.
- Accessible Rich Internet Applications (ARIA) – Part 1: Introduction A brief introduction into ideas and concepts of the W3C specification for Accessible Rich Internet Applications (ARIA). It discusses the need for complex Web controls, presents various Web content types, and explains why there is a need for something better than current solutions offer – this is where ARIA comes in. It concludes with references and acknowledgements.
- Accessible Rich Internet Applications (ARIA) – Part 2: ARIA The second part part of the article describes what ARIA is, its specifications, its support regarding user agents, assistive technologies, and development toolkits, its basic concepts, and its design patterns. It concludes with a brief discussion of future challenges.
- Accessibility for ABAP Programs This article describes some of the challenges the SAP Accessibility Team and developers faced when making ABAP-based applications accessible, and gives useful hints also for customer development projects.

- High Contrast Black Theme in SAP GUI for Windows 7.20 This article describes the rationale and design solutions to make SAP GUI for Windows accessible to users who need high visual contrast.

Publications

Journal Articles

- Breaking Down Barriers (German version: Hürden überwinden; published in German in blaupause 02-2007, the members' magazine of the German-Speaking SAP User Group (DSAG))

Books About SAP and Accessibility

- Josef Köble (Ed.) (2007). *Developing Accessible Software with SAP NetWeaver*. Galileo Press. ISBN: 1592291120 Also available as e-book. ISBN: 9781592292424 German version: Josef Köble (Hrsg.) (2007). *Entwicklung barrierefreier Software mit SAP NetWeaver*. Galileo Press. ISBN: 3898428621