



New slides for 'Ergonomics' topic

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DAAD Project
"Joint Course on Software Engineering"

Humboldt University Berlin, University of Novi Sad, University of Plovdiv,
University of Skopje, University of Belgrade, University of Niš, University of Kragujevac

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In the beginning

- ▶ Once upon a time, there was a set of 3 Teils about „Software Ergonomics“
- ▶ They were used as a part of a course „Software Engineering“ at Humboldt University in Berlin, by the author prof. Klaus Bothe (co-author of presentations is Uli Sacklowski)
- ▶ Those 3 presentations consisted of 238 slides altogether (52+76+110)

Kapitel 24
Software-Ergonomie
(Teil 1)

VL Software Engineering
Prof. Klaus Bothe

Dieses Kapitel enthält Material aus dem Lehrbuch von Helmut Balzert, Software-Technik, Band 1, 2. Auflage, Spektrum Akademischer Verlag, 2001

Stand: 03.02.04

Kapitel 24
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So what?

- ▶ DMI of the University of Novi Sad presented JCSE for 4 years at graduate and 2 years at undergraduate level so far.
- ▶ In other words – we think that we are pretty much familiar with its content, presentations, tests, and assignments.
- ▶ After adding several new topics last year, we continued with these course extensions. Besides originally intended 23 topics, more can and should be prepared in a similar manner, and possibly used as a part of a course.



But, who will ...

- ▶ As usual, Humboldt University was kind enough to agree, and donate one (3, actually, as I said) of their presentations.
- ▶ “Software ergonomics” sounded as a topic important, interesting, and appropriate enough to be the next extension of JCSE.
- ▶ Yet ... 238 slides ... phew ...



More than that ...

- ▶ As if that is not enough, prof. Bothe was kind one more time, and presented us with a book by Ben Schneiderman, one of the famous authors in this area, to be used as a supplement to this topic.
- ▶ So – it wasn't "only" 238 slides, it was 400 pages of excellent material about "Software ergonomics"
- ▶ Yes, sure, we did our part too. There is more freely available material on a topic on the Internet we found and downloaded... There are some other books, too ...



And?

- ▶ So, the "3 Teil" Topic, became "3 Tale" fairy-tale.
- ▶ Sure, it needs some polishing, some proof-reading, and some checking, but there is something to start from.



Topic 24 Software-Ergonomics (Part 1)

DAAD Project
"Joint Course on Software Engineering"
RWTH Aachen University, University of Duisburg-Essen,
University of Brno, University of Bergamo

Version: Feb. 05, 2002 (Feb. 02, 2004)



Topic 24 Software-Ergonomics (Part 2)

DAAD Project
"Joint Course on Software Engineering"
RWTH Aachen University, University of Duisburg-Essen,
University of Brno, University of Bergamo

Version: Feb. 14, 2002 (Feb. 02, 2004)



Topic 24 Software-Ergonomics (Part 3)

DAAD Project
"Joint Course on Software Engineering"
RWTH Aachen University, University of Duisburg-Essen,
University of Brno, University of Bergamo

Version: Mar. 21, 2002 (Feb. 02, 2004)

What first?

- ▶ Why reading, and checking?
- ▶ The author of a “first level” of translation (Ger → Eng), and additions is a graduate student (Juhas Lajos).
- ▶ Improvements and adjustments of a translation were performed by a teaching assistant (Zoran Putnik).
- ▶ *None* of those two ever learned German officially, so some proof-reading might be useful.



What next?

- ▶ Besides possible, and probable typos, there are also other, more serious changes needed.
- ▶ Some examples should presumably be adjusted and innovated.
- ▶ Some points noticed in other presentations, or books on the same subject, should be added.
- ▶ And, most of all, some *lecture notes* should be created, in a style, and with a purpose same as for the other Topics.

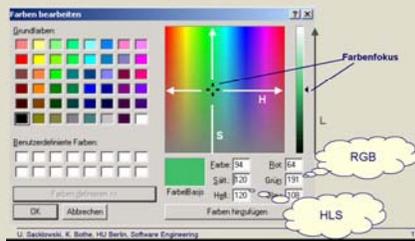


Quantitative data:

- ▶ Let's take a look at some of the changes and adjustments of material Prof. Bothe and Mr. Sachlowski created:
- ▶ Instead of the "original", *German* versions of computer screens, *English* screenshots are used.

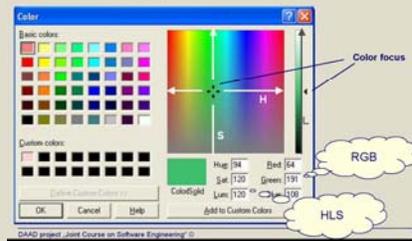
Farbgliederungen und -Modelle (3)

Farbmodelle im Programm 'Paint': HLS und RGB



Color articulations and models (3)

Color model in a program 'Paint': HLS and RGB



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Quantitative data:

- ▶ The same goes for texts in used cartoons:

... what are the causes of this?



Quelle: Westfälische Rundschau, 1.6.1996

... was hier die Ursachen sind?



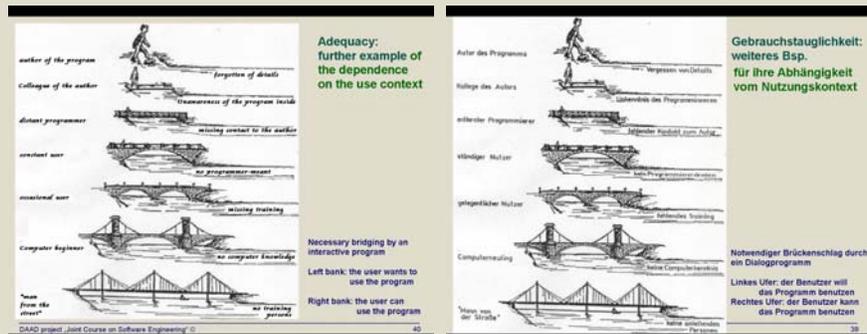
Quelle: Westfälische Rundschau, 1.6.1996

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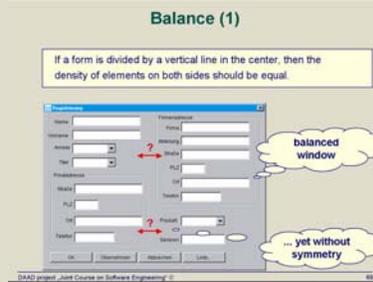
Quantitative data:

► Or:



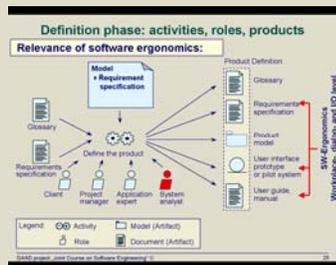
Quantitative data:

- But ... not everything is changed:
- All of the screens showing GUI of SemOrg example, are still in German, just copied from the original presentation.
- So – one of the first steps we plan to do is this change, since we *do have* SemOrg in English.

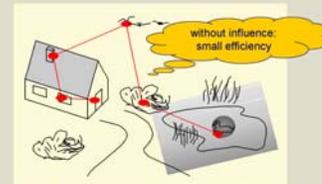


Some more ideas:

- ▶ There is probably a need for some new drawings, since in all other Topics, they are redrawn and exchanged with the new ones.
- ▶ Since I personally know the “author” of redrawn pictures, I’m sure he’ll let me have them.



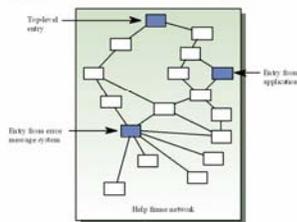
Paths of the view fixation without influence (structure or expectation)



Some more ideas:

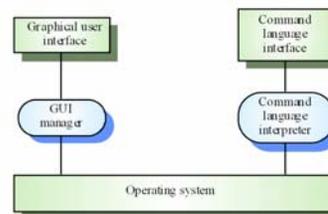
- ▶ We can probably add some more notions that are considered a part of “Software ergonomics”.
- ▶ For example, here we can see slides from “Software ergonomics” lecture by Ian Sommerville:

Entry points to a help system



or

Multiple user interfaces



Conclusion:

- ▶ Existing (German) material for a topic “Software Ergonomics” is:
 - translated
 - (slightly) changed
 - (slightly) extended
- ▶ ... giving as a result English material that can be used as a part of JCSE, as an additional topic.
- ▶ Material can, should, and will be additionally improved and extended.
- ▶ We'll show You that, the next year!

