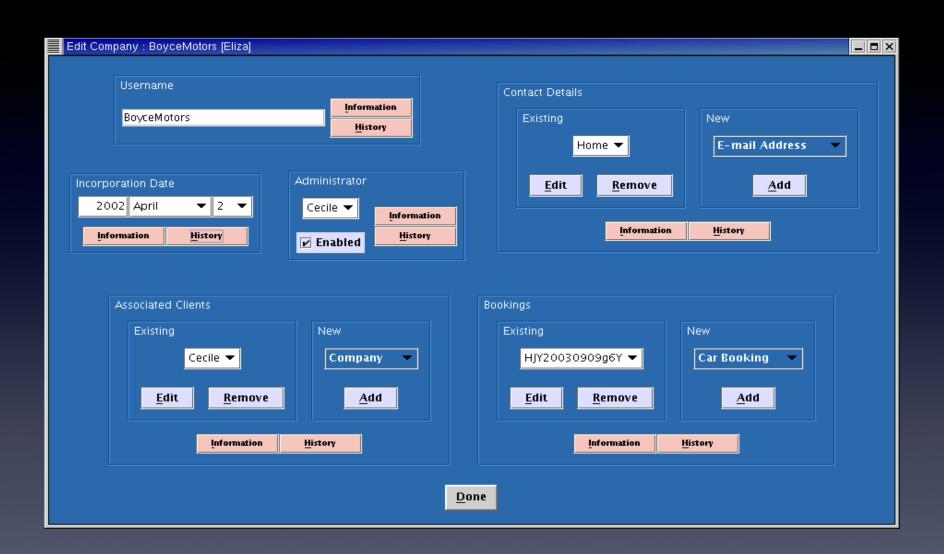
First Aid for Swing

Karsten Lentzsch • JGoodies

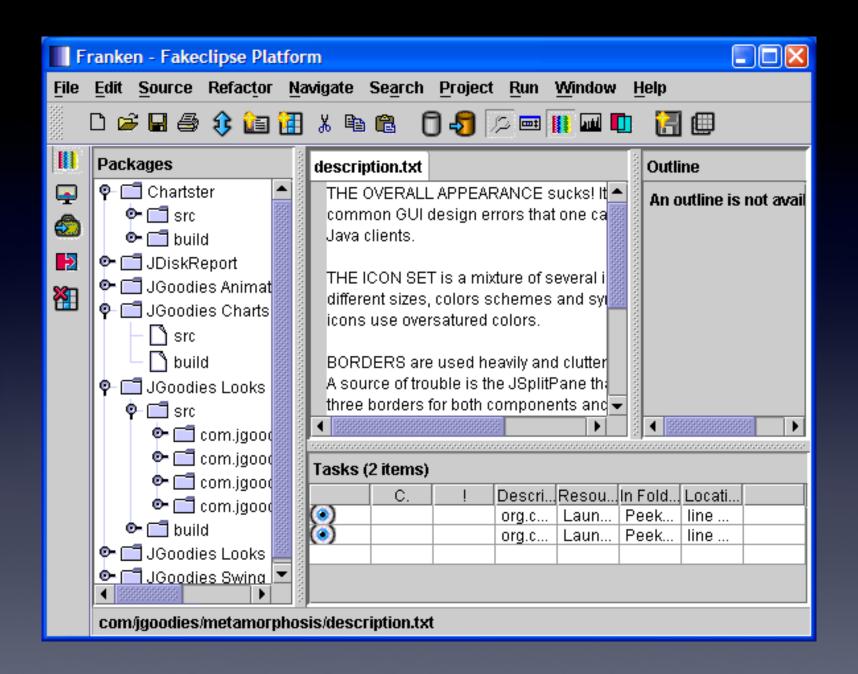
It's easy to program Swing ...

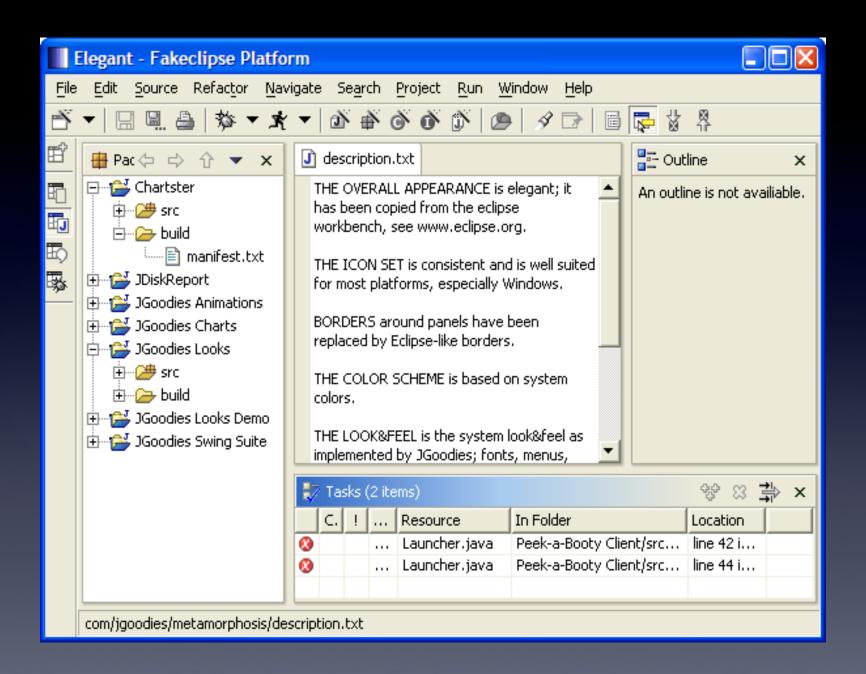
It's easy to program Swing badly.



Goal

Learn how to quickly improve the appearance of your applications





Introduction

Don'ts

Dos

Introduction

Don'ts

Dos

Problems

- Poor, ugly or horrible UI
- Swing is difficult to learn
- Tutorials, books show poor design
- Good design is difficult to implement
- Hard to find good source examples

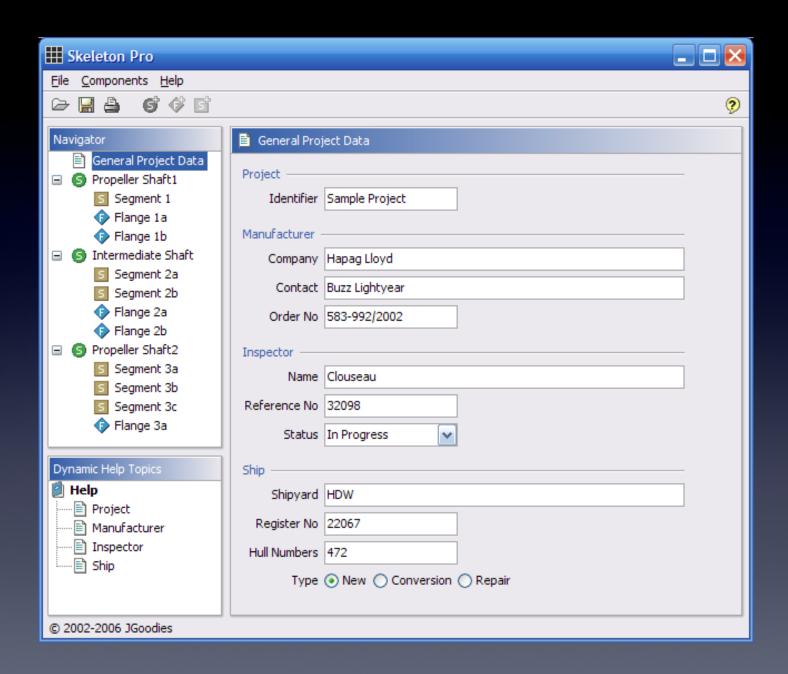
Target

The "average" desktop project:

- No training
- No time
- No UI budget
- Customers don't pay for good design

Focus

- Good design you can do
- Things you can improve quickly
- Form-oriented design
- Compete with native apps
- More design fun



Principles

- Small changes can break the design
- Small things add up
- Attention to content, not the design
- Change only what you understand!

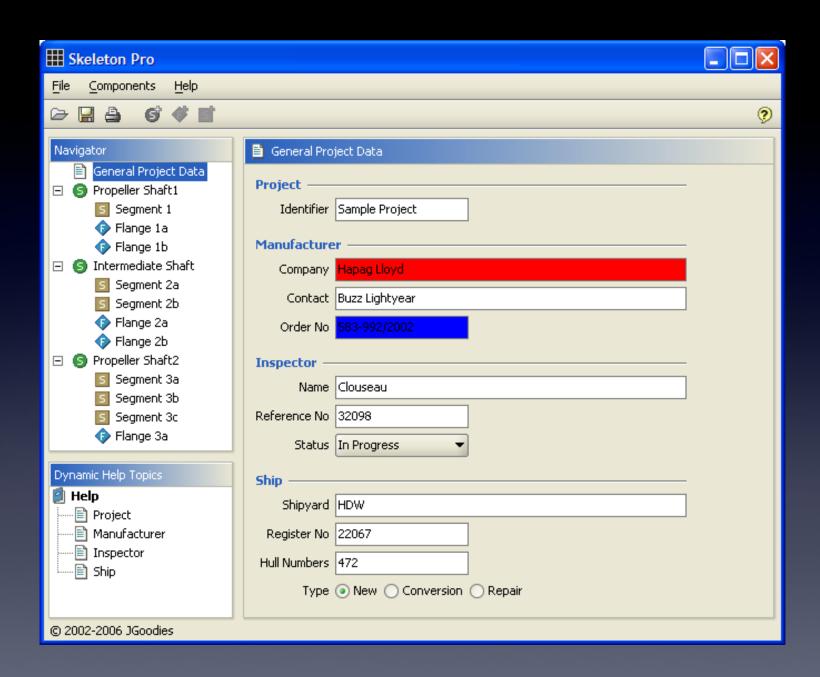
Introduction

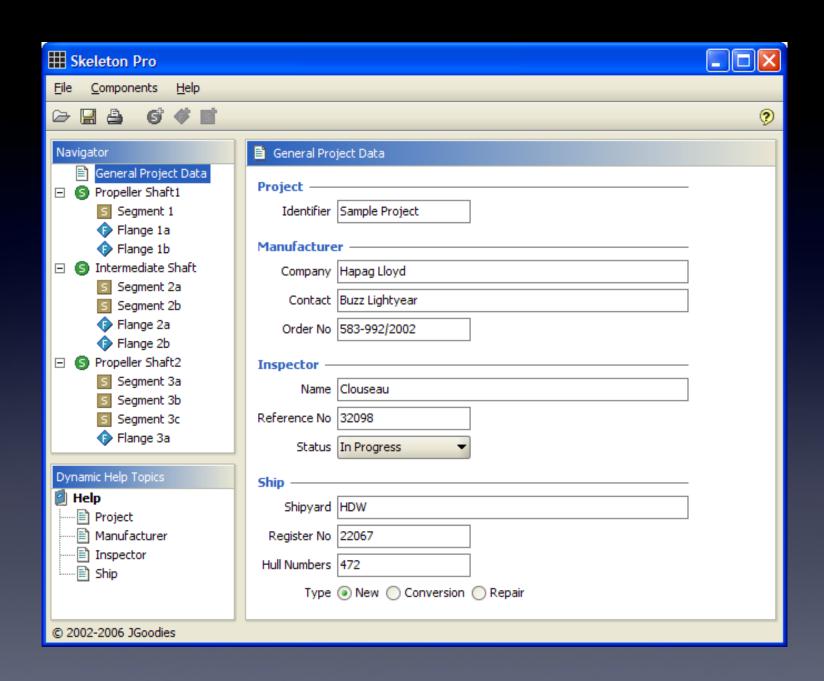
Don'ts

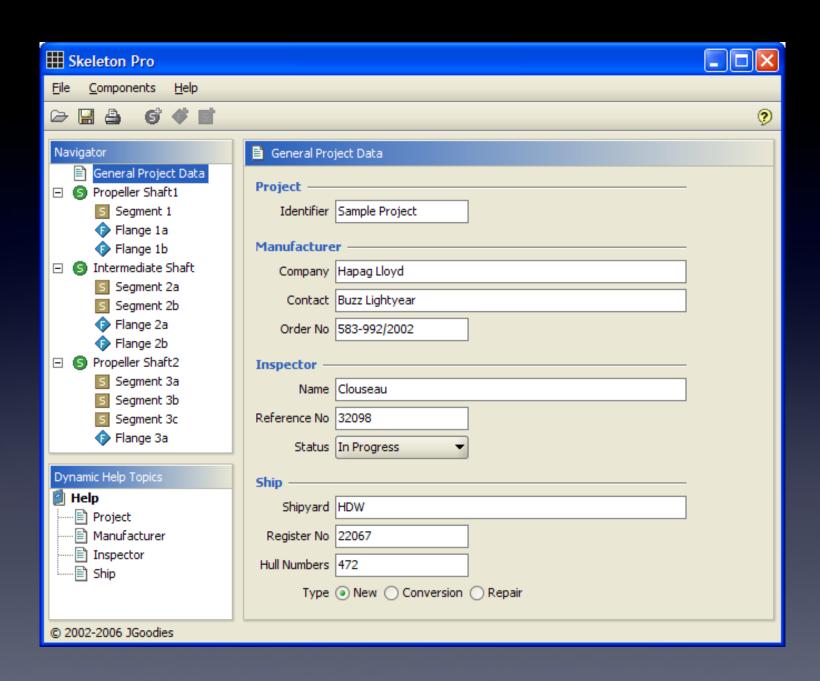
Dos

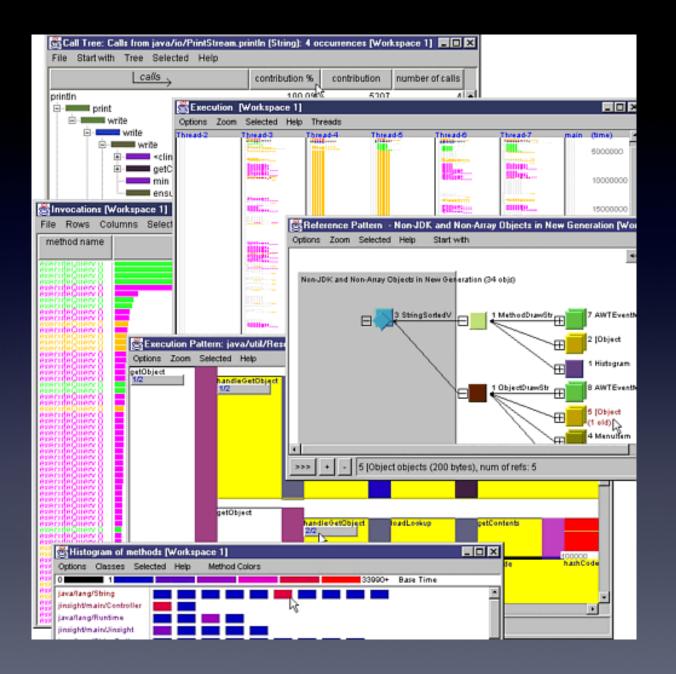
Colors

- Do not add colors to the desktop
- Do not add colors to the Swing L&F
- Avoid heavily saturated colors





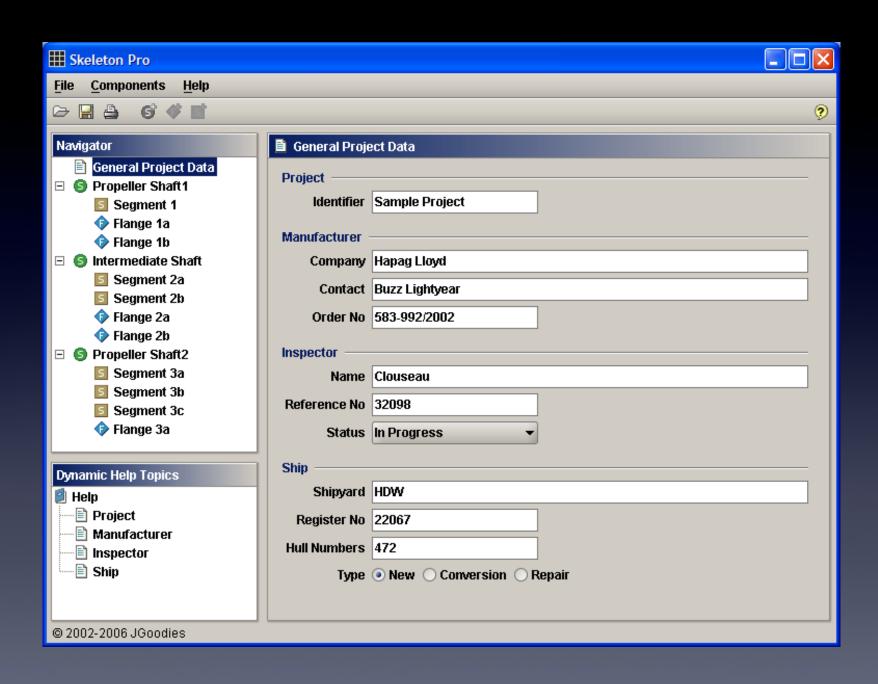


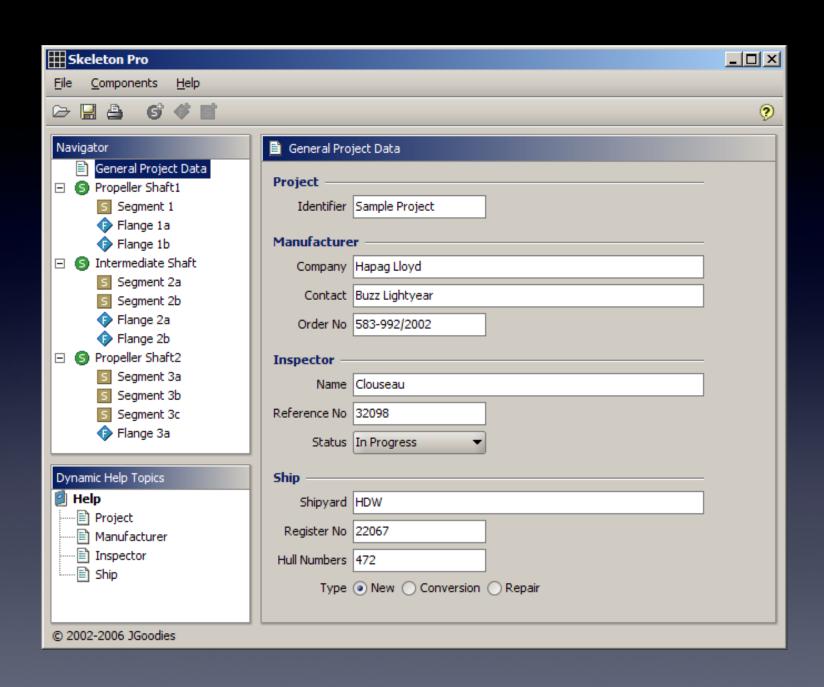


Paths Table						
	Call Stack Prefix	Access	Table Access	Depth	Count	Clock Total 🔻
					21,381	1,161,153,675
	<mark>'''' </mark>	📑 Read-Write		16	*4,548	*145,503,248
	🕙 🎮 scheduleWorkOrder	🔡 Read-Write	₹	34	113	141,970,941
	🕙 💌 scheduleWorkOrder	🔢 Read-Write	₩	35	113	137,339,645
	🕙 🎟 scheduleWorkOrder	🔡 Read-Write	m_parts	34	615	128,048,284
	🕙 🎟 scheduleWorkOrder	🔢 Read-Write	₹	37	81	90,492,223
	🕙 🎟 scheduleWorkOrder	🔡 Read-Write		30	279	68,705,334
Į Į	🕙 💌 scheduleWorkOrder	🔢 Read-Write	₩	38	54	48,657,110
	🕙 🎟 scheduleWorkOrder	🔡 Read-Write		33	189	45,416,502
Į į	🕙 💌 updateWorkOrder	📑 Read-Write	-	5	4,002	40,284,446
	🕙 🎫 scheduleWorkOrder	🔡 Read-Write		13	470	36,327,201
Į į	🕙 🅶 completeWorkOrder	📑 Read-Write	• •	12	1,997	32,633,315

Fonts

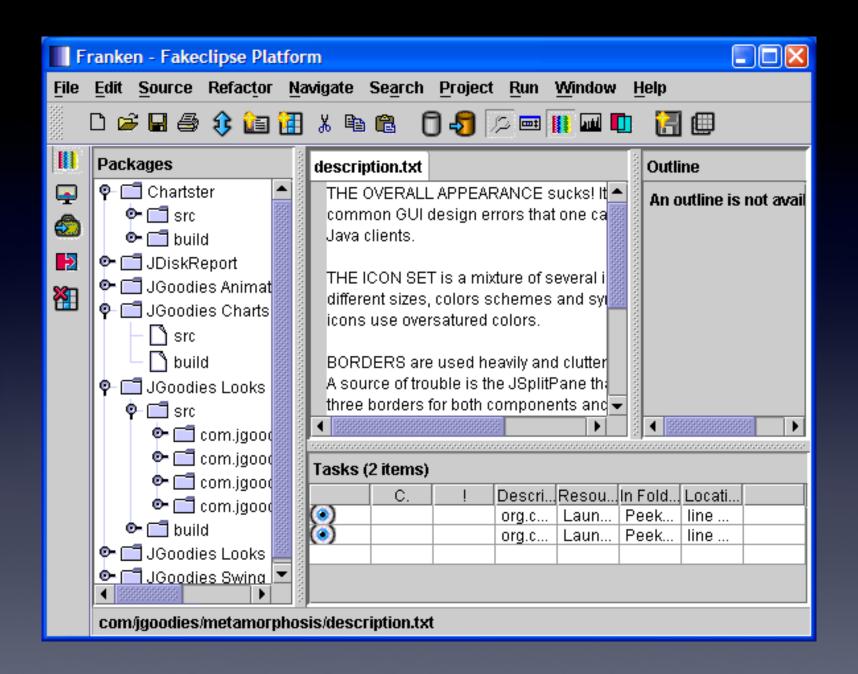
- Use native fonts
- Use native sizes
- Use native weight (normal vs. bold)
- Use native raster type
 (pixel, anti-aliased, subpixel-AA)

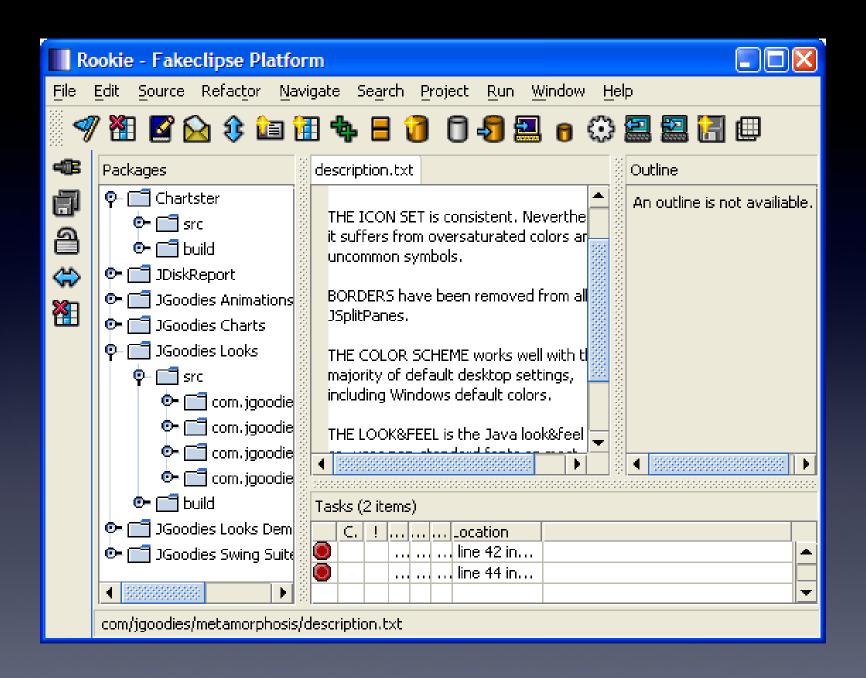


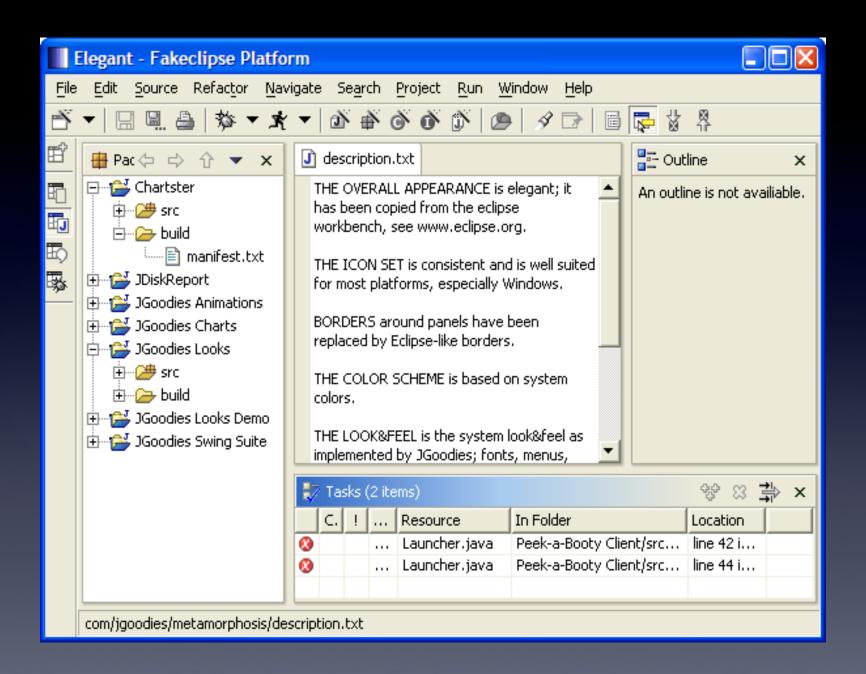


Icons

- Use icons that work well with the OS, w.r.t. design, size, color scheme
- Consistent icon set
- Remove questionable icons







Introduction

Don'ts

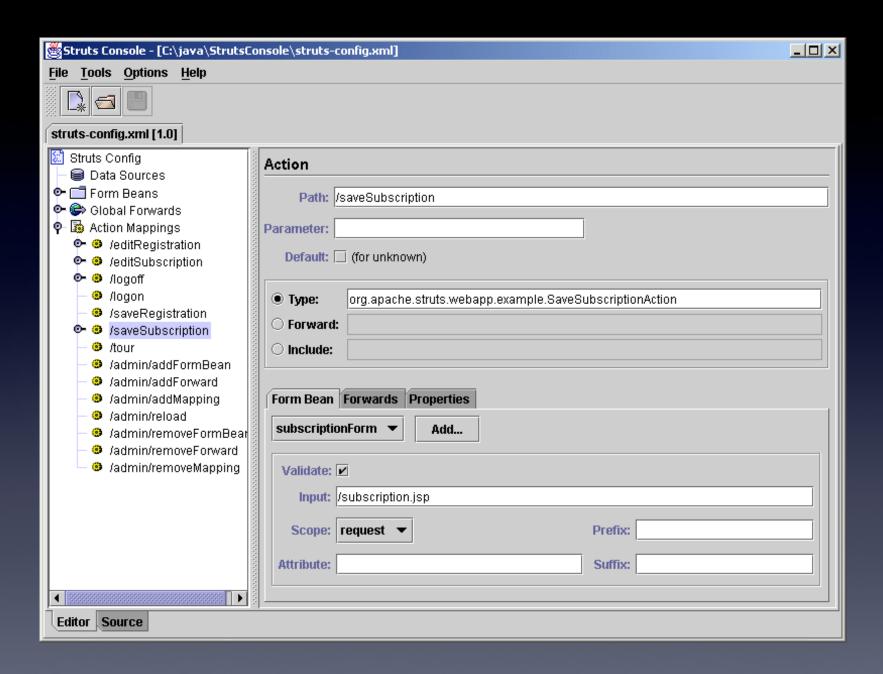
Dos

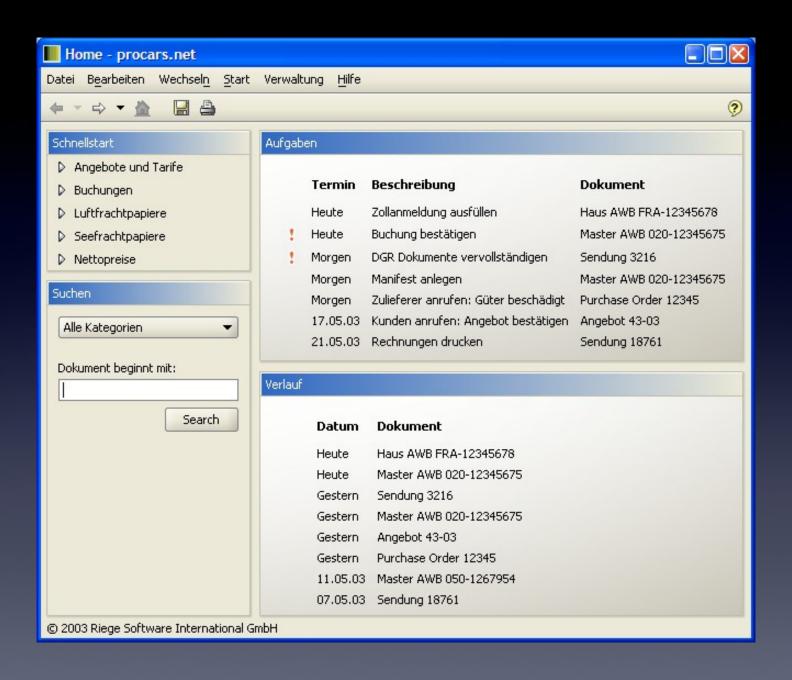
Clutter

- Remove clutter and visual noise
- Remove duplicate borders
- Favor separators over (titled) borders
- Write short texts

Design Essence

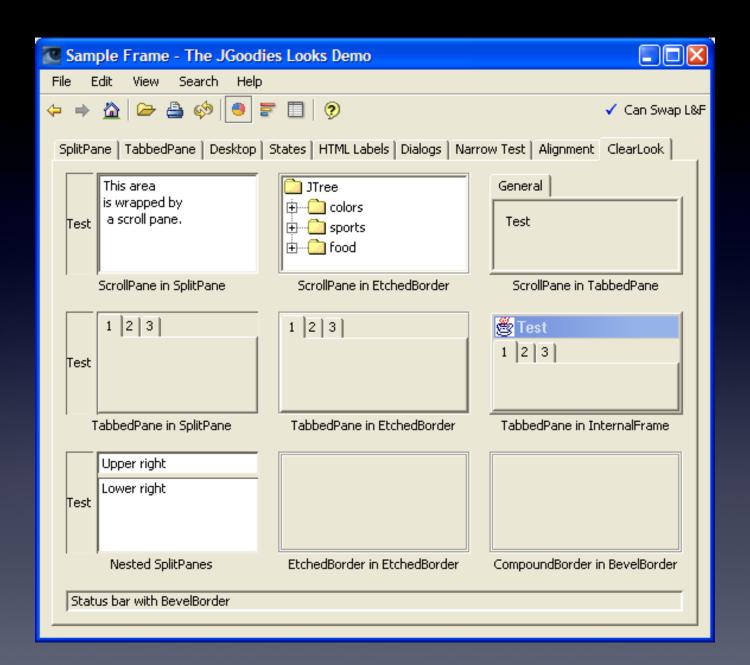
- Does it add information?
- Check every: pixel, line, border
- Remove unnecessary: components, panels, dialogs

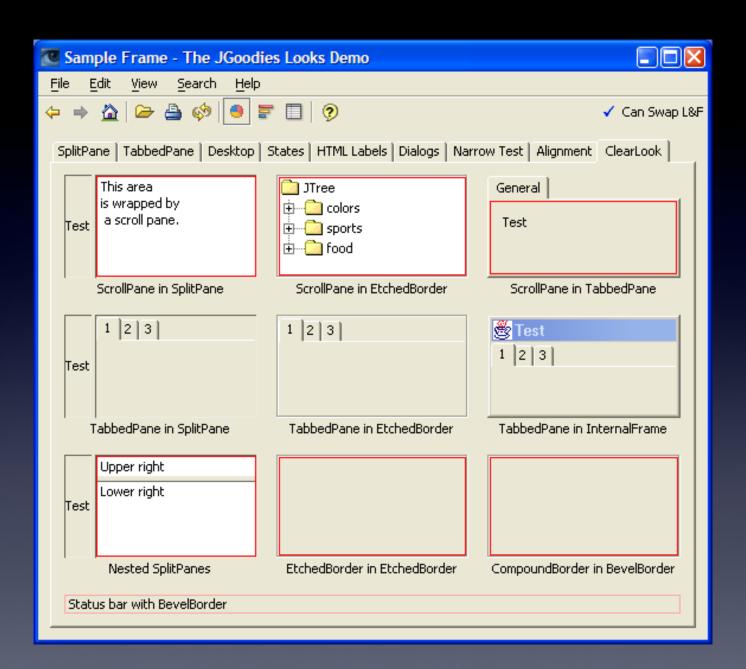




Critical Components

- Avoid nested borders
- JSplitPane
- JScrollPane
- BevelBorders
- EtchedBorders
- TitledBorders

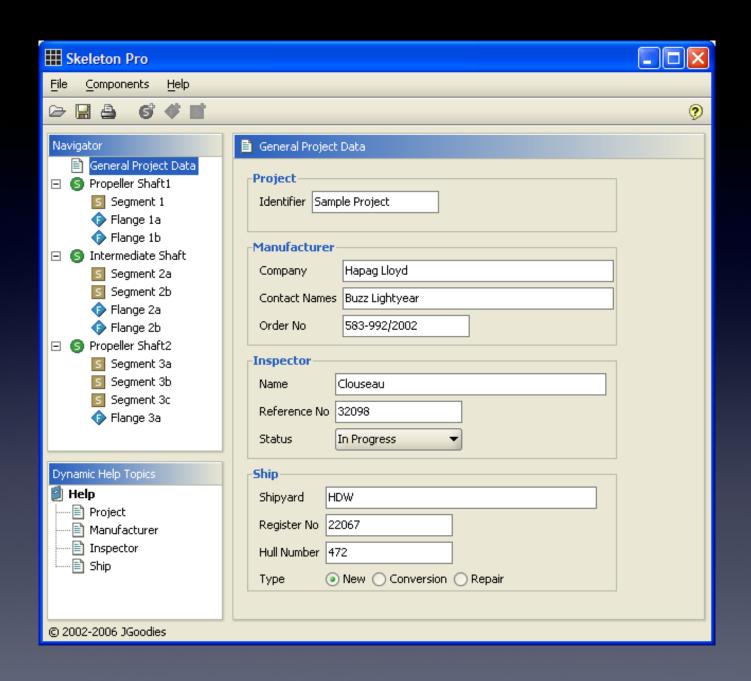


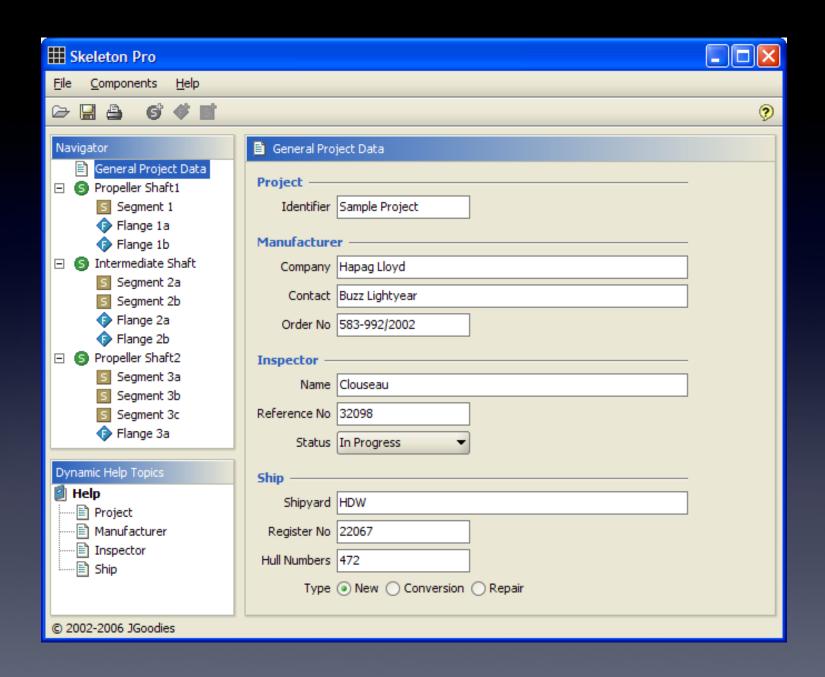


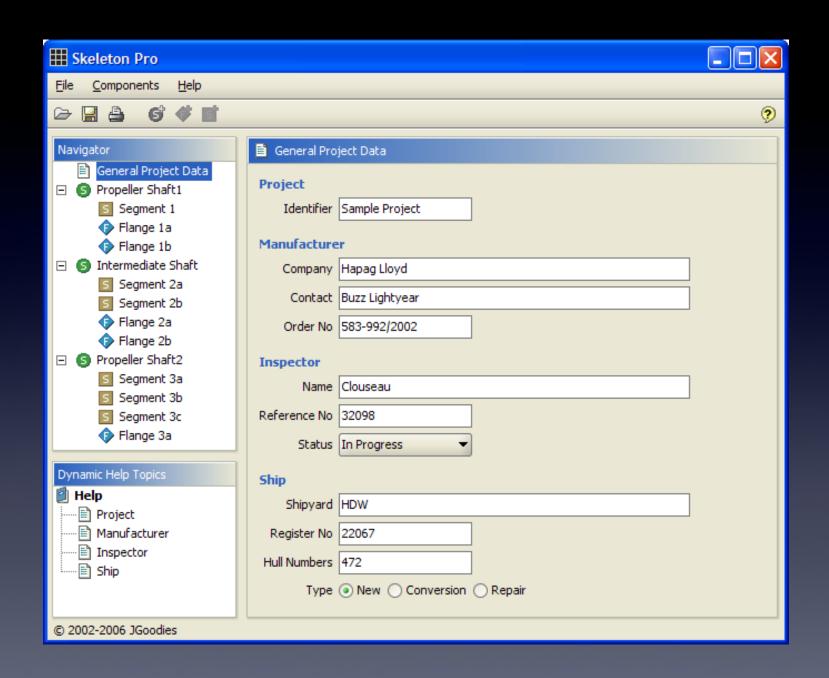
TitledBorder

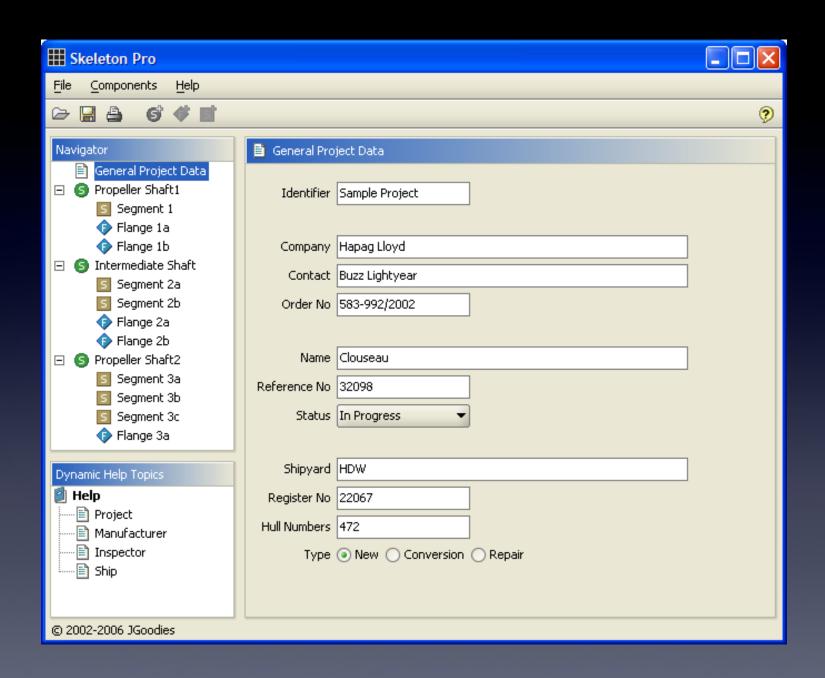
- Often has 3 unnecessary lines
- Difficult to align
- Difficult to align its content

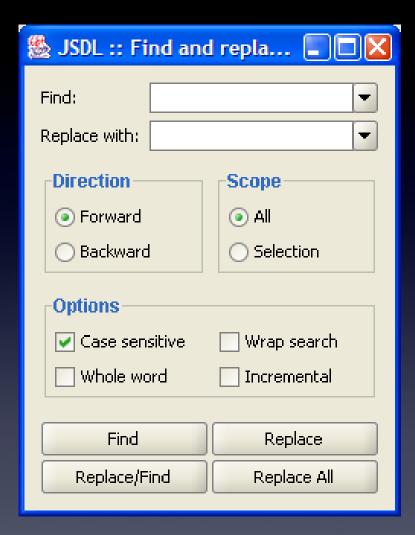
- Favor separators over TitledBorders
- Don't nest TitledBorders









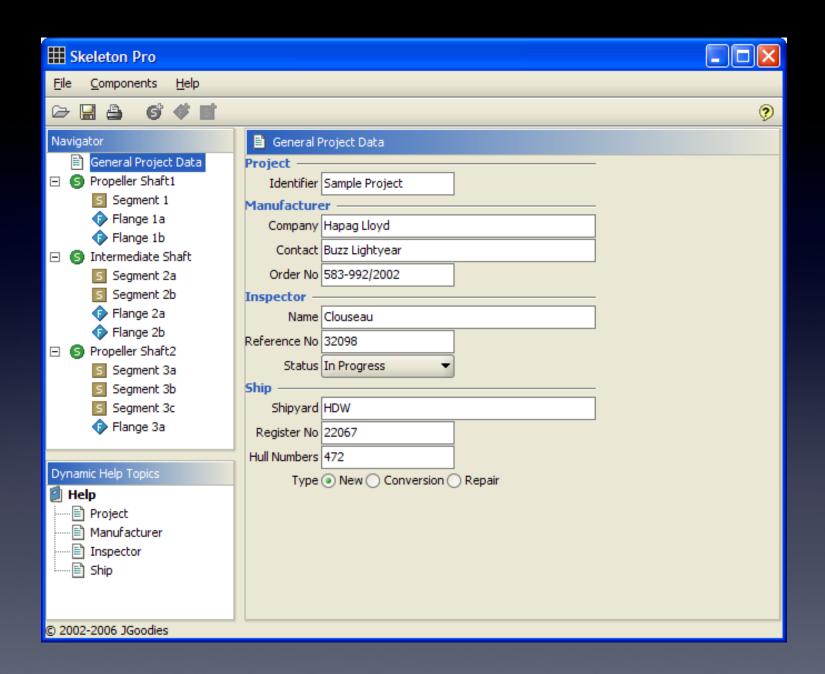


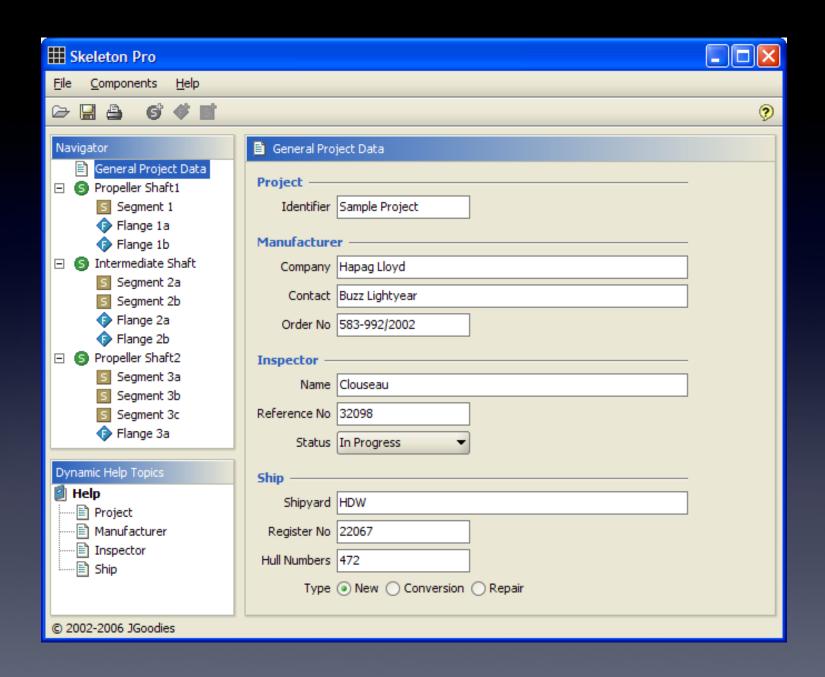
🥾 JSDL :: Find and replace p 🔳 🗖 🔀					
Find:		•			
Replace with:		•			
Direction:	: Forward				
	O Backwa	ard			
Scope:	All				
	O Selecti	on			
Options:	s: 🔽 Case sensitive 🔲 Wrap search				
	Whole	word 🔲 Incremental			
Find		Replace			
Replace	/Find	Replace All			

White Space

- White space is not wasted space
- It's a powerful tool for design

- Isolate and separate groups
- Wrap components with white space
- Favor white space over separators



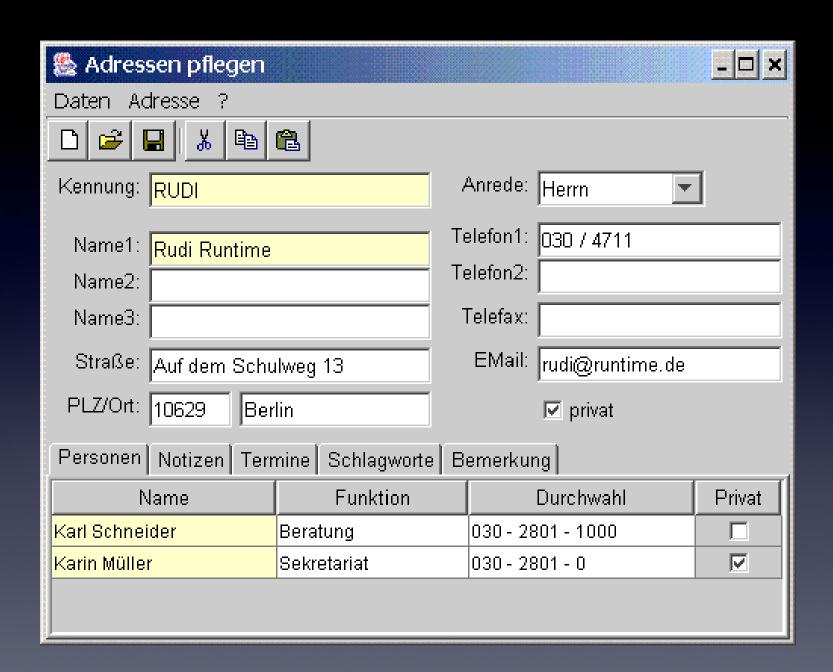


Alignment

- Align component bounds
- Consider using a grid and grid system

Difficult:

- Align fonts along the baseline
- Align component bounds and the baseline



Segment 1				
Segment				
Identifier Segment	1			
PTI [kW]		Power [kW]		
len [mm]				
Diameters ———				
da [mm]		di [mm]		
da2 [mm]		di2 [mm]		
R [mm]		D [mm]		
Criteria ———				
Location Propeller	nut thread 🔻	k-factor		
Connection C45E, Re	eH=600 ▼			
Holes 🗹 Has ra	idial holes			
Slots 🗌 Has lo	ngitudinal slots			

Poor Micro Design

- Inconsistent component sizes
- Inconsistent component insets
- Font baselines not aligned, or component bounds
- Poor or wrong pseudo 3D effects

.Net 2.0

2610 💲

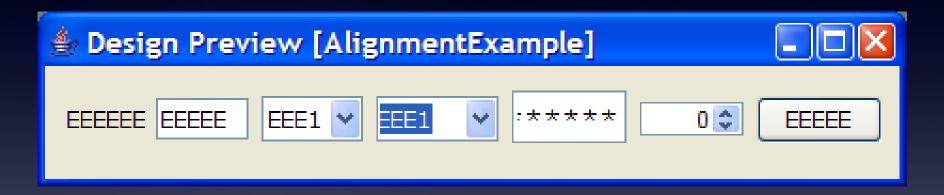
26.10.2005

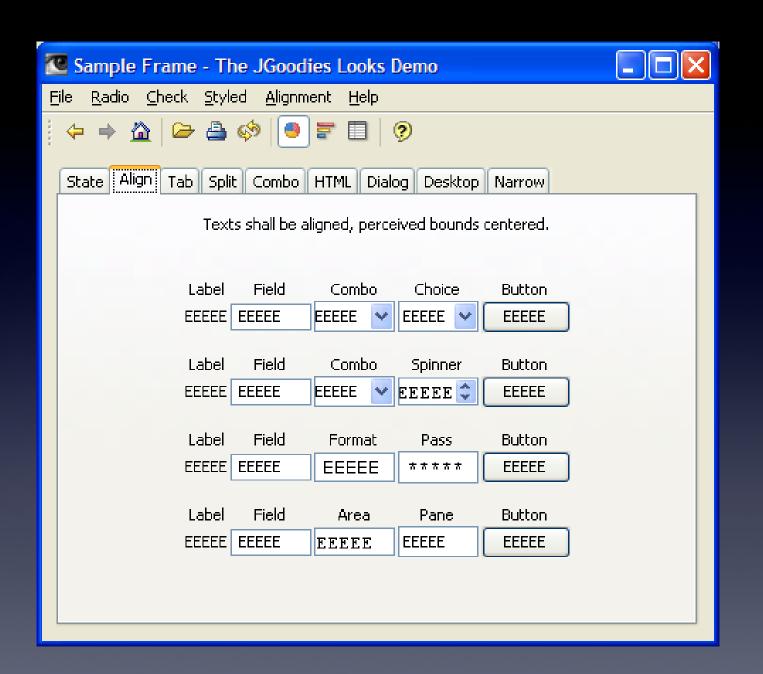


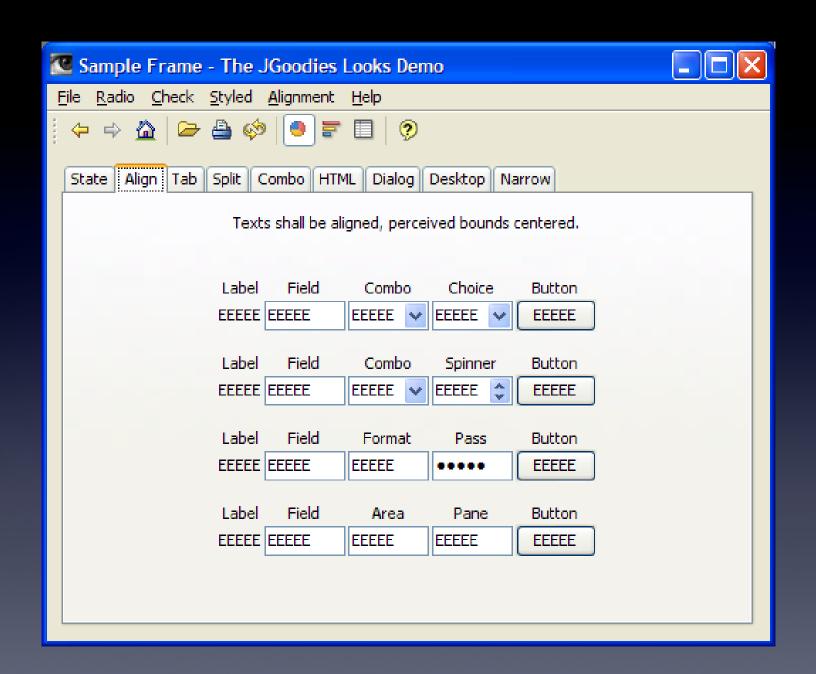
26.10.2005

26.10.

Java (baselines aligned with Matisse)







Group and Relate

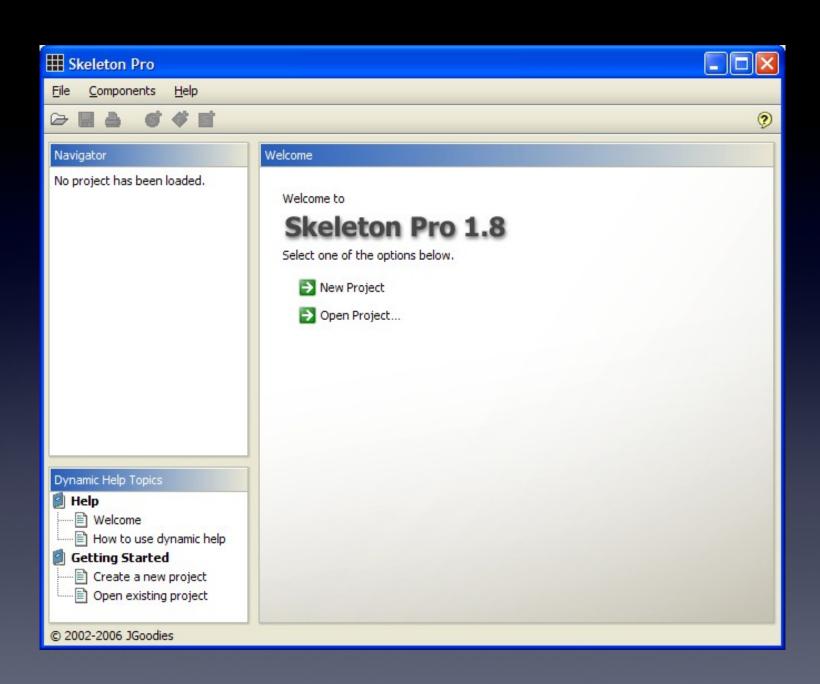
- Learn to group
- Make similar content equally wide
- Make similar content equally high
- But again: avoid the TitledBorder



Segment 1					
Segment ————					
Identifier	Segment 1				
PTI [kW]		Power [kW]			
len [mm]					
Diameters :					
da [mm]		di [mm]			
da2 [mm]		di2 [mm]			
R [mm]		D [mm]			
Criteria —					
Location	Propeller nut thread 🔻	k-factor			
Connection	C45E, ReH=600 ▼				
Holes	✓ Has radial holes				
Slots	Has longitudinal slots				

Balance

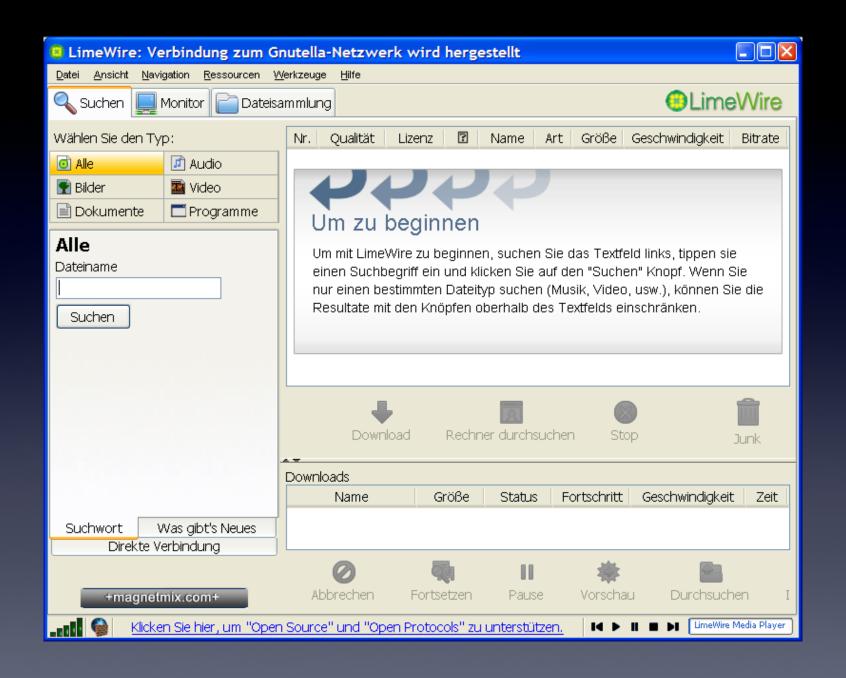
- Perceived axes and visual weight
- Find the optical balance point
- Consider to center a single view
- Consider to use symmetry

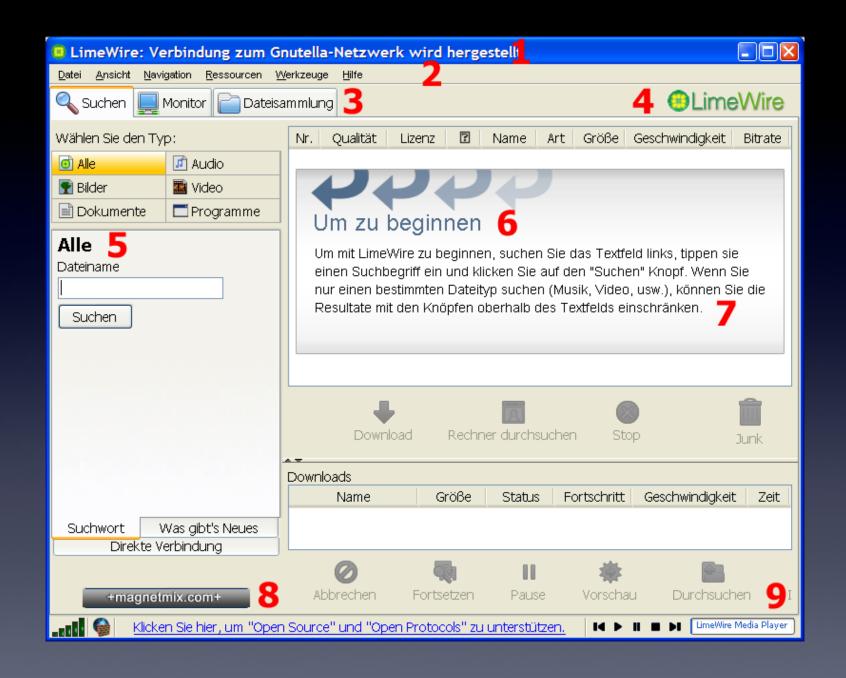


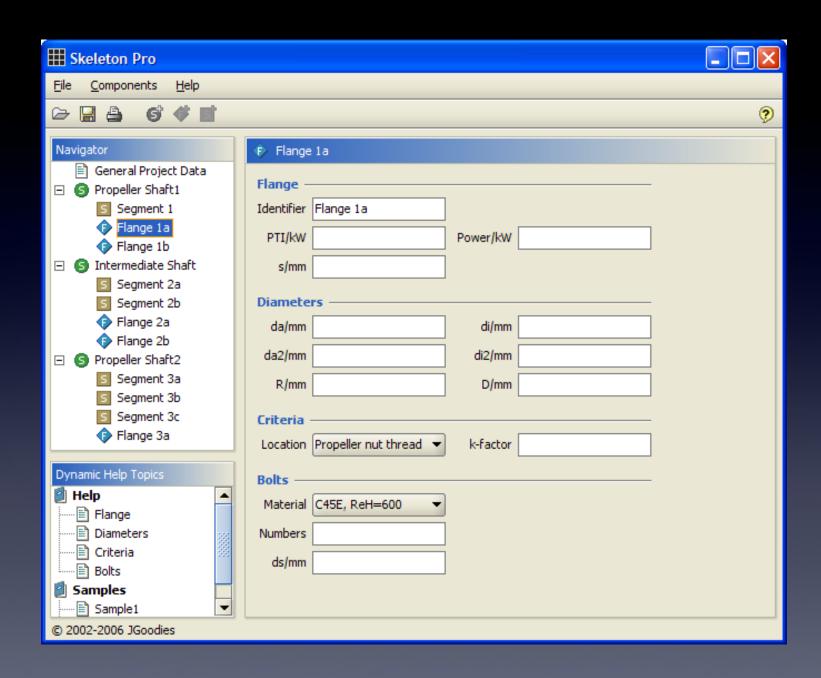


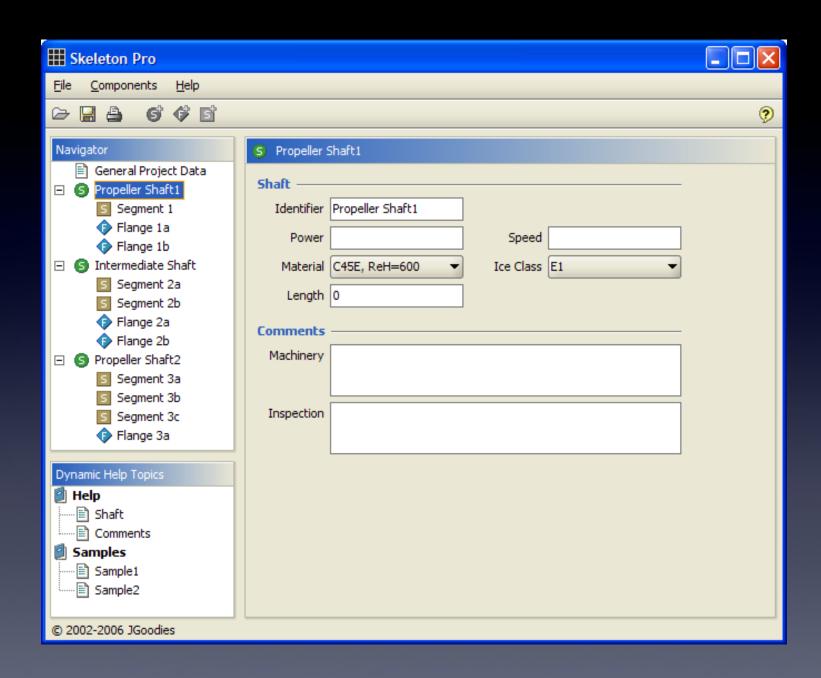
Consistency

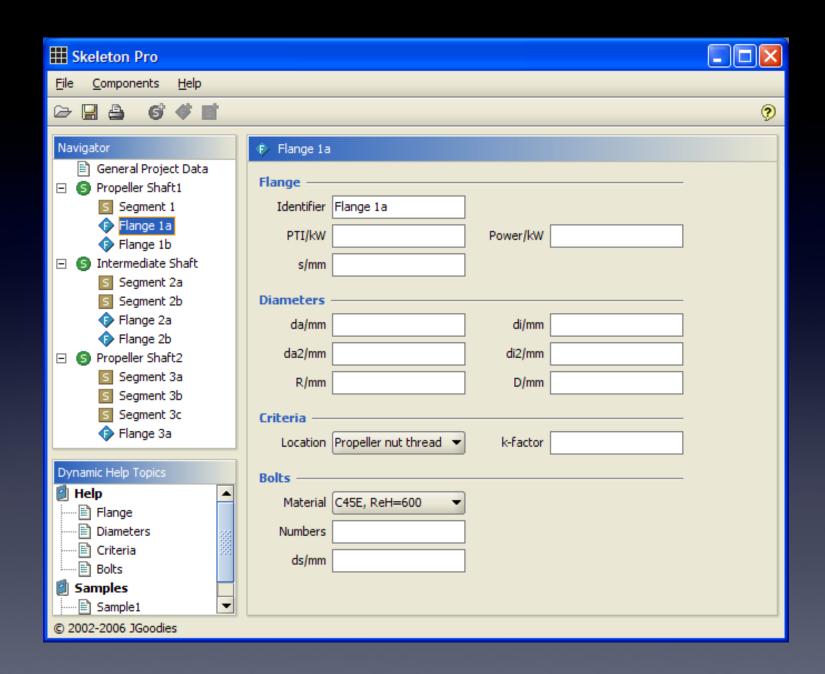
- Button sizes, order, gaps
- Dialogs, panels, button bars
- L&F micro design
- Icons
- Fonts

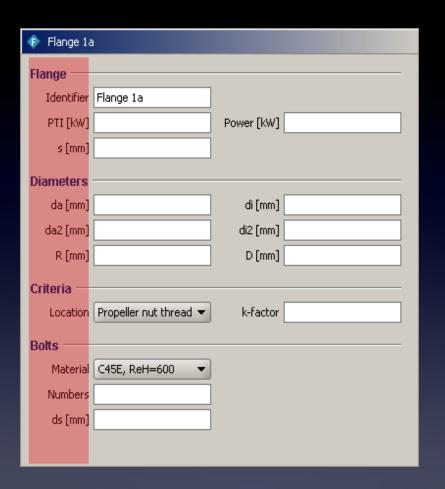








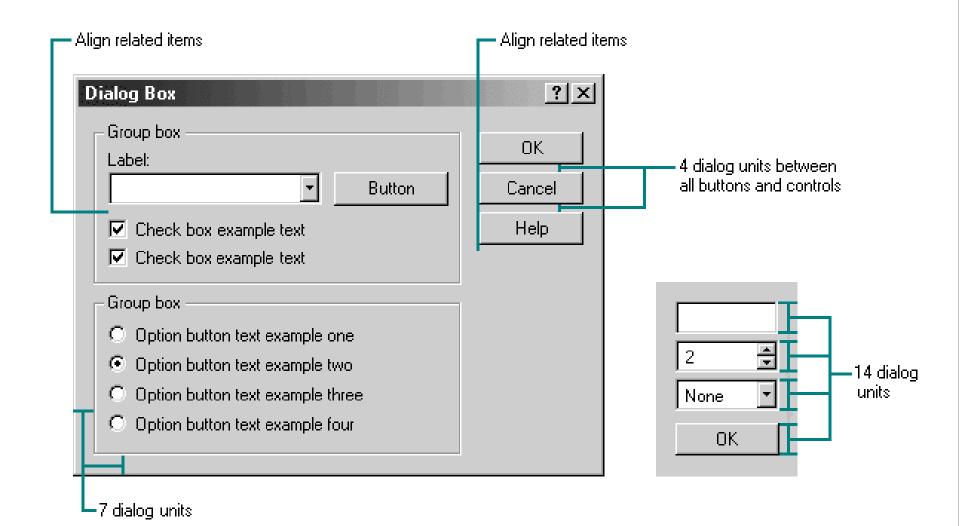




ľ	Segment	1		
	Segment -			
	Identifier	Segment 1		
	PTI [kW]		Power [kW]	
	len [mm]			
	Diameters			
	da [mm]		di [mm]	
	da2 [mm]		di2 [mm]	
	R [mm]		D [mm]	
	Criteria —			
	Location	Propeller nut thread 🔻	k-factor	
	Connection	C45E, ReH=600 ▼		
	Holes	✓ Has radial holes		
	Slots	Has longitudinal slots		

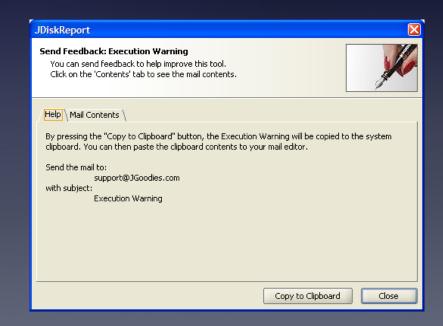
Meta Design

- Goal: get consistency quickly
- Coarse grained: dialog layout
- Fine grained: sizes, gaps





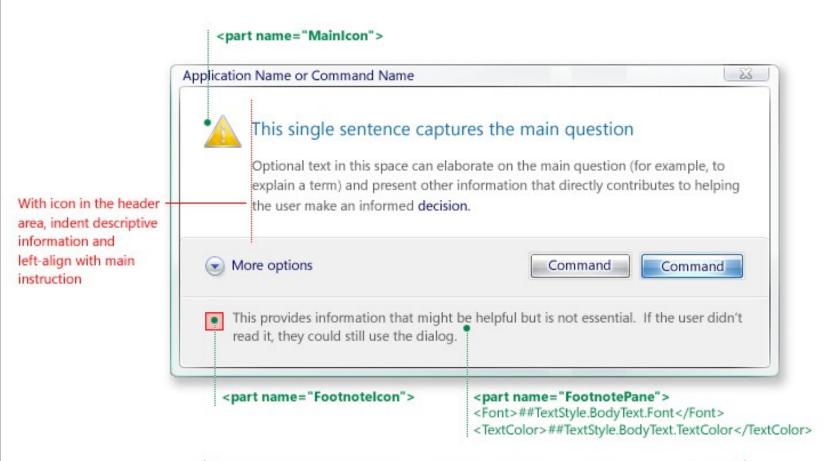
I do not accept the terms in the license agreement



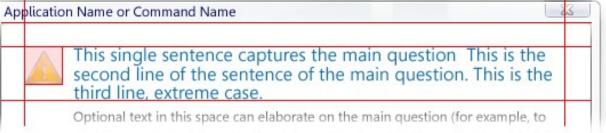
< Back

Finish

Cancel



Task dialog automatically expands and top aligns longer main instruction text strings







Aspect Ratio

- Stable aspect ratios:
 - 5:3
 - 16:9
 - 4:3
 - |:|
- Use a few aspect ratios



Unstable

Stable

Resolution Independence

- Scale with font and resolution (dpi)
- Layout does not retain proportions

Name:	Karsten		
Phone:			
Fax:			
Email:			
Address:			

B Grid	BagLayout	□×
Name:		
Phone:		
Fax:		
Email:		
Address:		

Flexibility

- Use static design where possible
- Add flexibility where necessary
- Static, splitted, multi-splitted, docking, windows

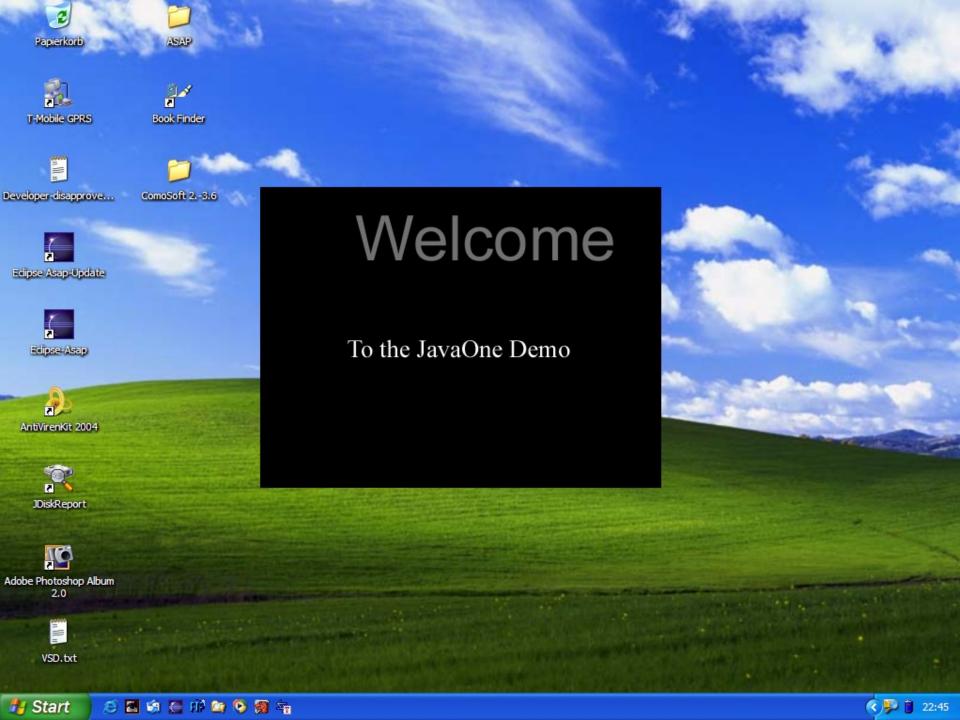
Contrast

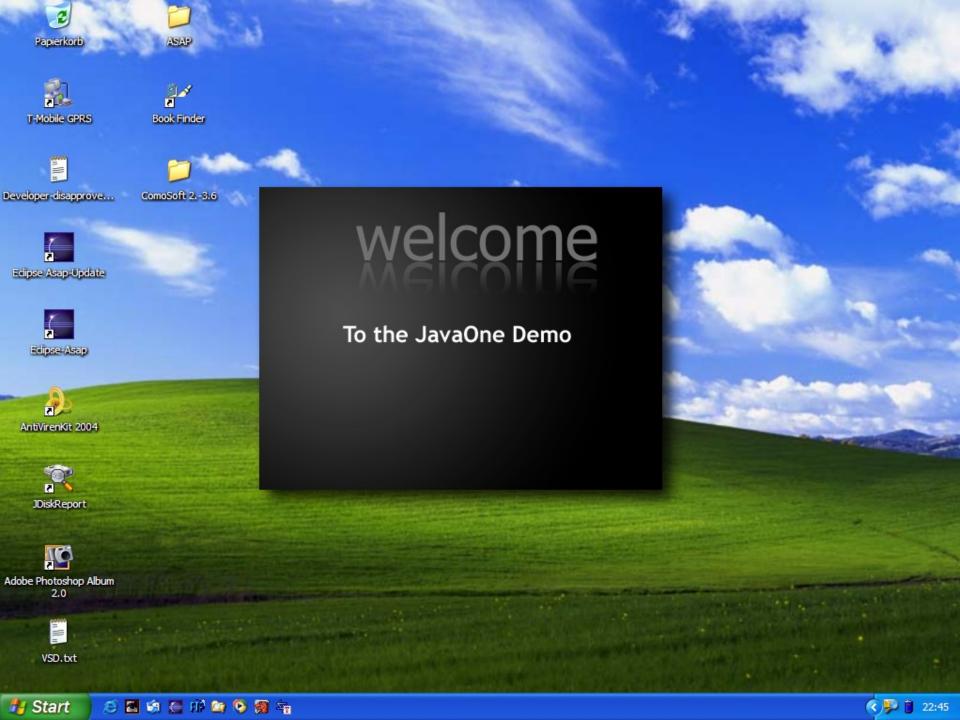
- Equalize contrasts
- Add white space where necessary
- Avoid large dark areas
- Use large white panels judiciously (otherwise the user gets tired)

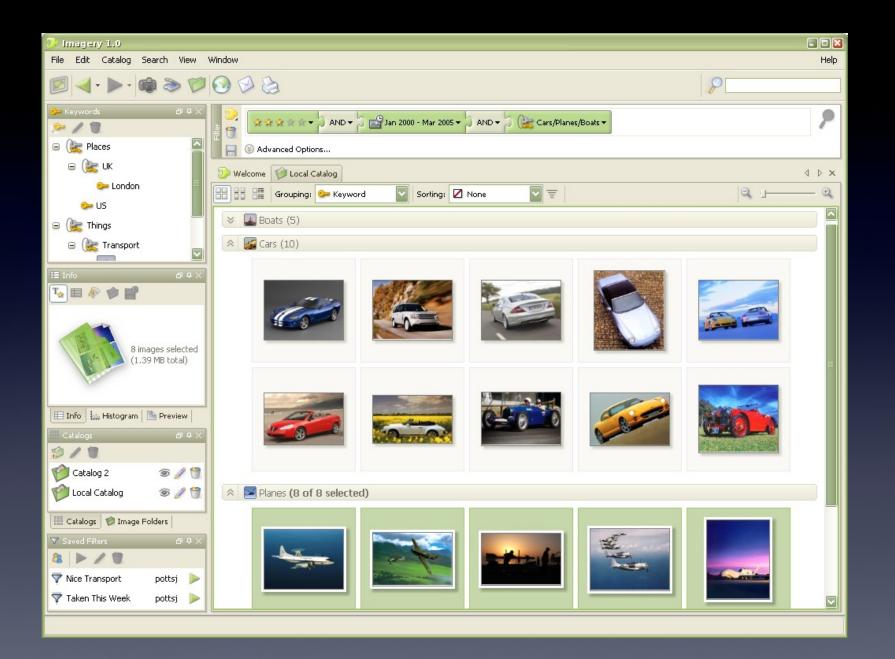
Learn the squint test

Spicing Up

- Until now we've only reduced the UI
- Now you can carefully add
 - Color
 - Advanced typography
 - Images
 - Animation

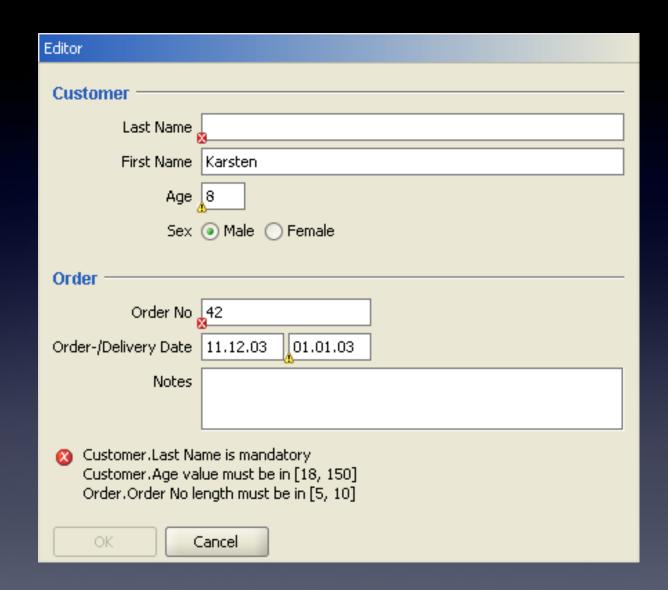


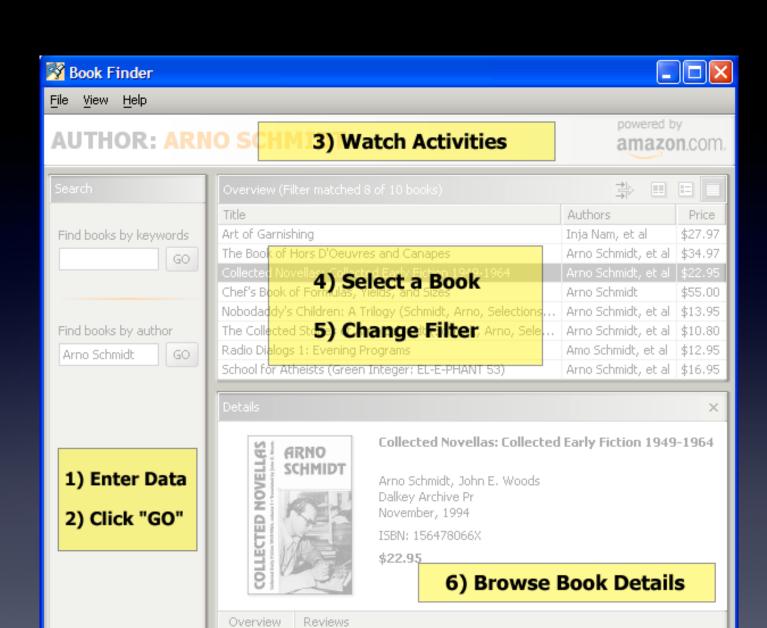




Powerful JFC

- Advanced graphics operations
- Translucency
- Glass pane
- Pluggable look and feel
- Enables high-level abstractions





© 2003 JGoodies.com

Agenda

Introduction

Don'ts

Dos

Gallery

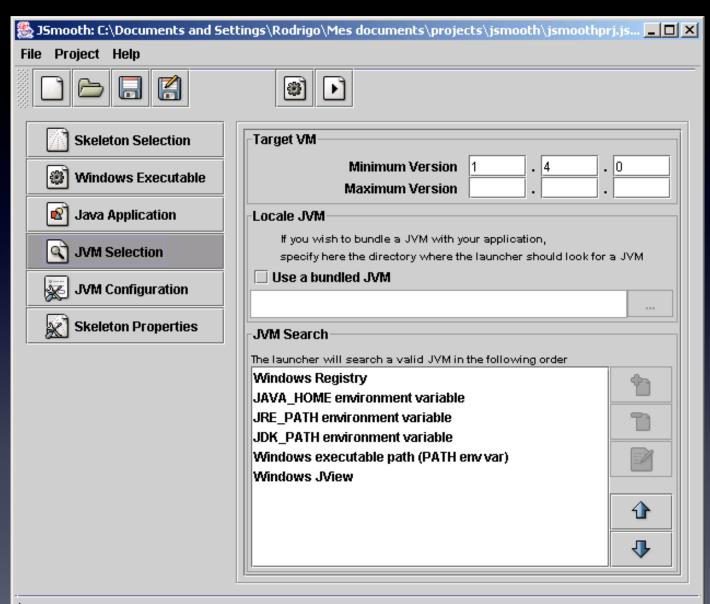
Wer bist Du? [1.0]



Domain-Name, ohne "www"
heise.de 🔻
Zu benutzender Such-Server(whois):
whois.geektools.com
10010110101Go0110111010101
- Go
10010110101Info)11011110101
1001 Einfache Text Darstellung 101
10010 Über "Wer bist Du ?" 10101

heise.de

Whois-Output Optionen <u>startseite | whois | optionen | html/suchen.. | proxy | über</u> Über "Wer bist Du ?" - Version 1.0a Copyright (c) by Olaf Kliche Witten, 6.Dezember 2002 Mail an: ok@object4you.com Im Web • wer-bist-du.net (Diese Site) • www.okl.de (Entwickler-Site) www.object4you.de (Java-Webstart-Applikationen) • www.object4you.com (Java-Webstart-Applikationen)



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×

Please read the terms and conditions of this license agreement carefully. By selecting the "Accept" button below, you accept the terms and conditions of this license agreement. If you are not willing to be bound by its terms, select the "Decline" button at the bottom of this dialog.

jDiskUsage 1.0 Beta1 Binary Software Evaluation Agreement

Terms of Agreement

This is a legal Agreement between you (either an individual or entity) and Karsten Lentzsch, Robert-Koch-Strasse 3, 24116 Kiel, Germany ("KL").

KL is willing to license jDiskUsage 1.0 Beta1 software to you only upon the condition that you accept all the terms contained in this license agreement ("Agreement"). Please read the terms and conditions of the license carefully. By installing or using this software, you accept the terms and conditions of this license agreement. If you are not willing to be bound by its terms, select the "Decline" button at the bottom of this

Accept

Decline

Print

jDiskReport Setup



License Agreement

Please read the following license agreement carefully.

Press the PAGE DOWN key to see the rest of the agreement.



jDiskReport Binary Software License Agreement

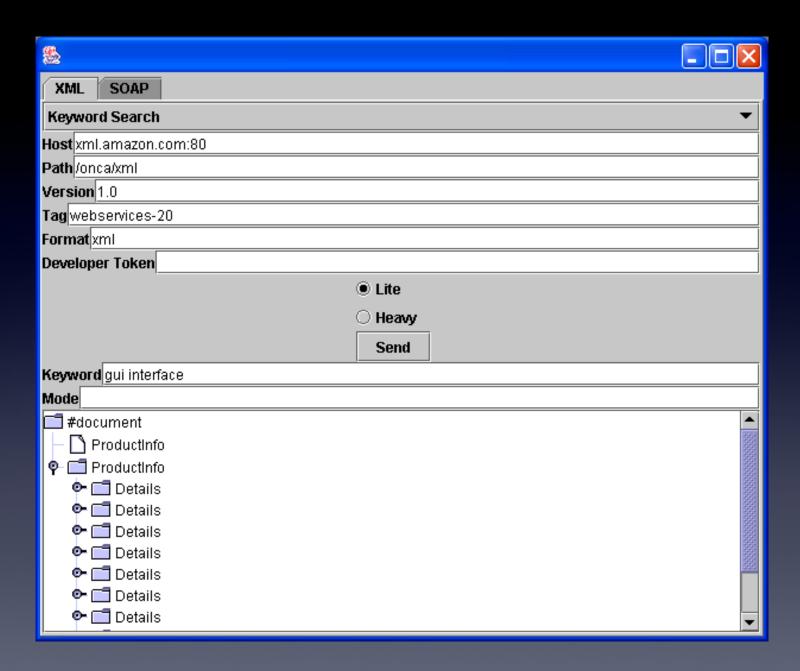
Terms of Agreement

This is a legal Agreement between you (either an individual or entity) and Karsten Lentzsch, Wilhelmshavener Str. 25, 24105 Kiel, Germany ("KL").

KL is willing to license jDiskReport 1.0 Final software to you only upon the condition that you accept all the terms contained in this license agreement ("Agreement"). Please read the terms and conditions of the license carefully. By installing or using this software, you are acknowledging that you have read this Agreement, that you understand it, and that you are agreeing to be legally bound by its terms and conditions. If you do not accept all the terms of this Agreement, you may not install or use the software.

Do you accept all the terms of the preceding License Agreement? If you choose "No", the setup will close. To install jDiskReport, you must accept this agreement.

< <u>B</u>ack <u>Y</u>es <u>N</u>o







×

File View Help

AUTHOR: ARNO SCHMIDT

powered by amazon.com.



Overview (Filter matched 8 of 10 books)	→	
Title	Authors	Price
Art of Garnishing	Inja Nam, et al	\$27.97
The Book of Hors D'Oeuvres and Canapes	Arno Schmidt, et al	\$34.97
Collected Novellas: Collected Early Fiction 1949-1964	Arno Schmidt, et al	\$22.95
Chef's Book of Formulas, Yields, and Sizes	Arno Schmidt	\$55.00
Nobodaddy's Children: A Trilogy (Schmidt, Arno, Selections	Arno Schmidt, et al	\$13.95
The Collected Stories of Arno Schmidt (Schmidt, Arno, Sele	Arno Schmidt, et al	\$10.80
Radio Dialogs 1: Evening Programs	Amo Schmidt, et al	\$12.95
School for Atheists (Green Integer: EL-E-PHANT 53)	Arno Schmidt, et al	\$16.95

Details COLLECTED NOVELLAS ARNO SCHMIDT

Collected Novellas: Collected Early Fiction 1949-1964

Arno Schmidt, John E. Woods Dalkey Archive Pr November, 1994

ISBN: 156478066X

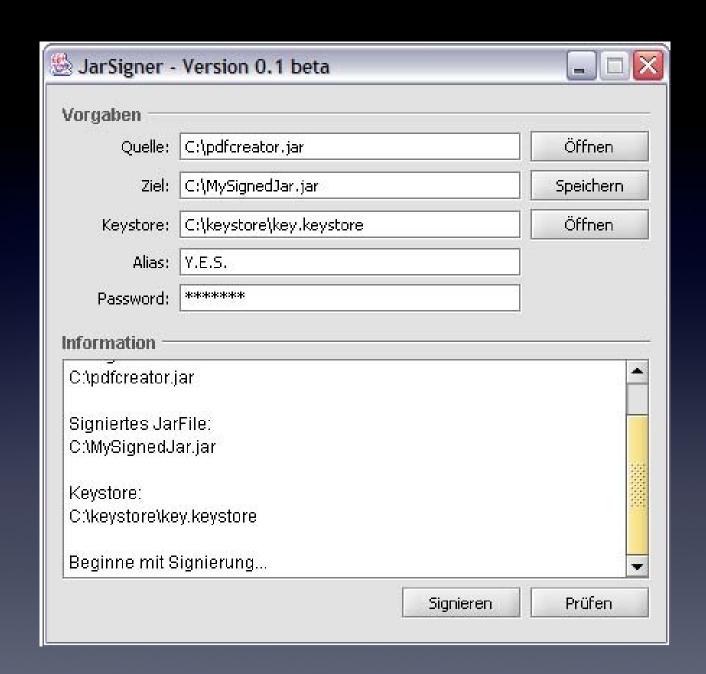
\$22.95

Overview

Reviews

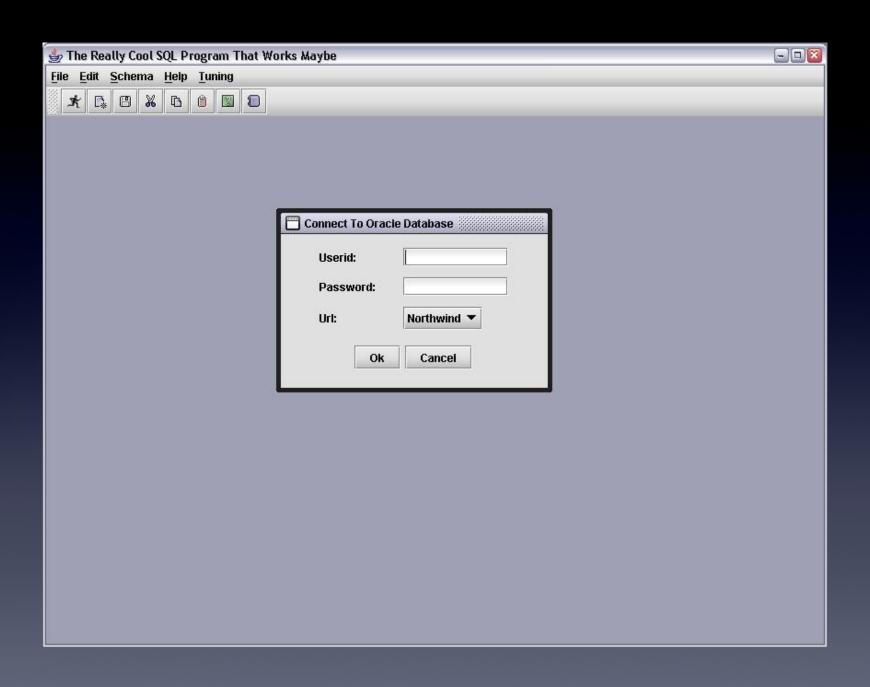
@ 2003 JGoodies.com

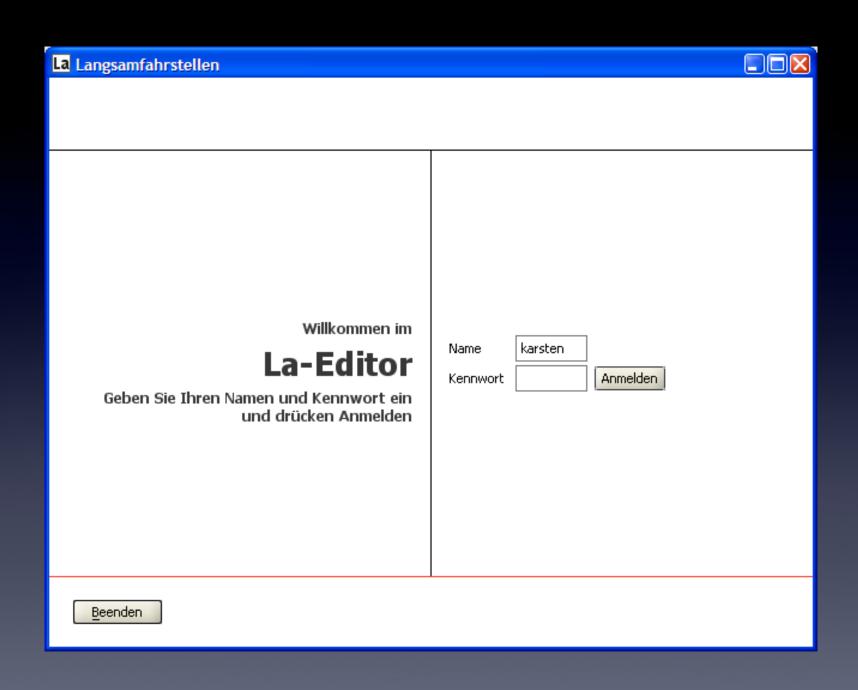












La Langsamfahrstell	lei
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Willkommen in der

La-Bearbeitung

Geben Sie Ihren Namen und Kennwort ein und drücken Anmelden Name

Kennwort

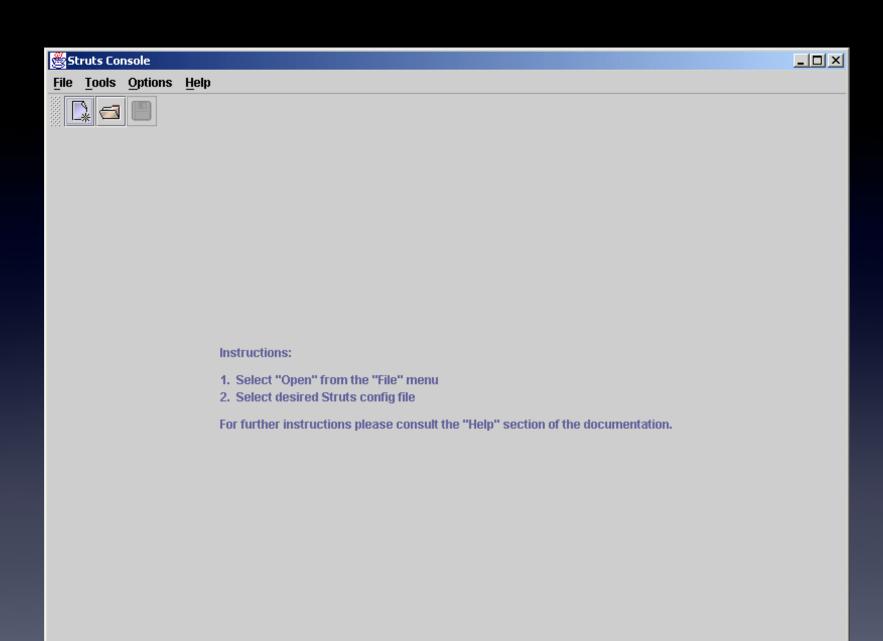
Karsten

•••••

Anmelden

Beenden

© 2004 JGoodies



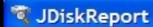


JDiskReport 1.2

What do you want to do?

- Analyse a file tree
 Opens a directory chooser and analyses the choosen file tree
- Analyse D:\Install\Java
 Recursively analyses the specified path
- Analyse D:\Programme\OpenOffice.org1.1.0

 Recursively analyses the specified path
- Open a previously saved scan Opens a previously saved scan result
- Exit
 Leaves this application





JDiskReport 1.2



What do you want to do?

- Analyse a file tree
- Analyse D: \Install \Java
- Analyse D:\Programme\OpenOffice.org1.1.0
- Open a previously saved scan

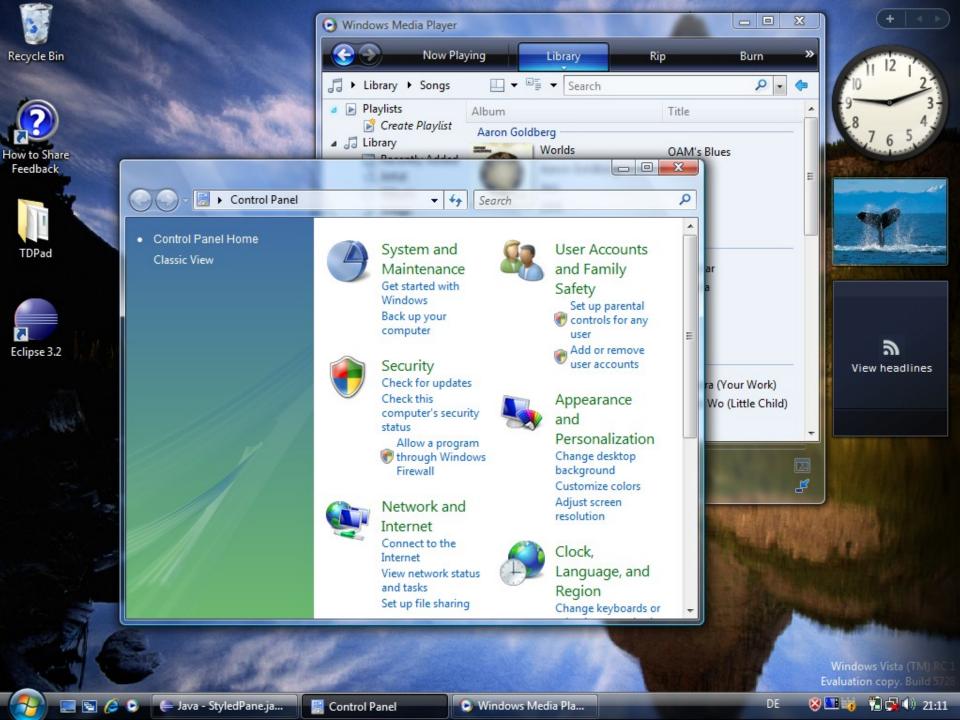
Exit

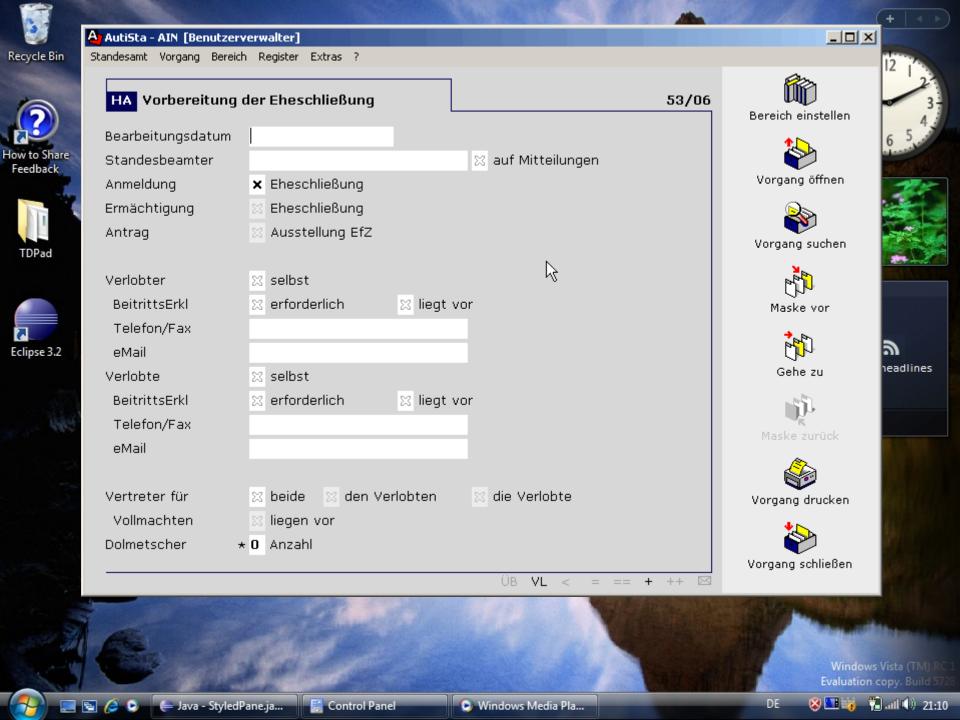
welcome

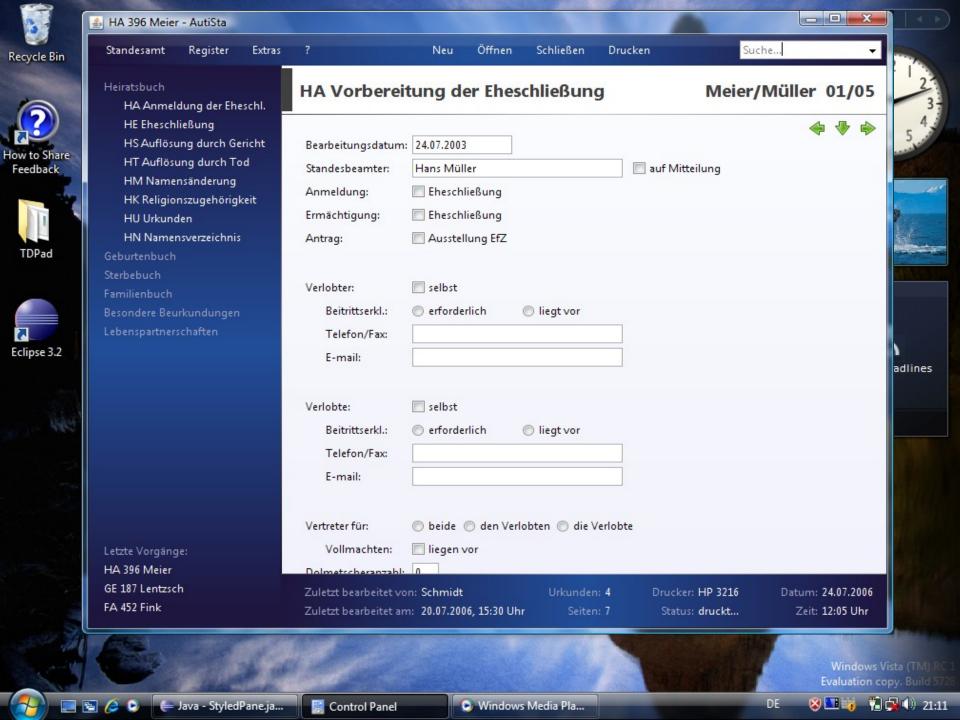
What do you want to do?

- Install JGoodies(R) Code Name "Wronghorn"
- Perform additional tasks

Exit







Summary

- Use appropriate fonts, colors, icons
- Remove clutter
- Reduce to its essence
- Align, group, relate, balance
- Be consistent

Libraries

- JGoodies Looks looks.dev.java.net
- JGoodies Forms forms.dev.java.net
- Sun's Swinglabs/Swingx

lcons

- Tango icons www.tango-project.org
- Eclipse icons www.eclipse.org

Books

- Scott Delap: Desktop Java Live
- Mullet & Sano: Designing Visual Interfaces
- Jeff Johnson: GUI Bloopers

More Information

- Mac Aqua Guide
- Vista UX Guide
- JGoodies Articles www.JGoodies.com/articles

Questions & Answers

First Aid for Swing

Karsten Lentzsch • JGoodies