Transformation from a "Classic GUI" to GUI for .NET

Martin Wolf	Executive VP
Gunnar Schug	VP of Development

About this talk

No education for .Net programming

No technical deep dive

It‘s about creating a very attractive UI without rewriting the entire application

- The way to define the UI from a UX standpoint
- The steps to migrate the application
- Lessons leared

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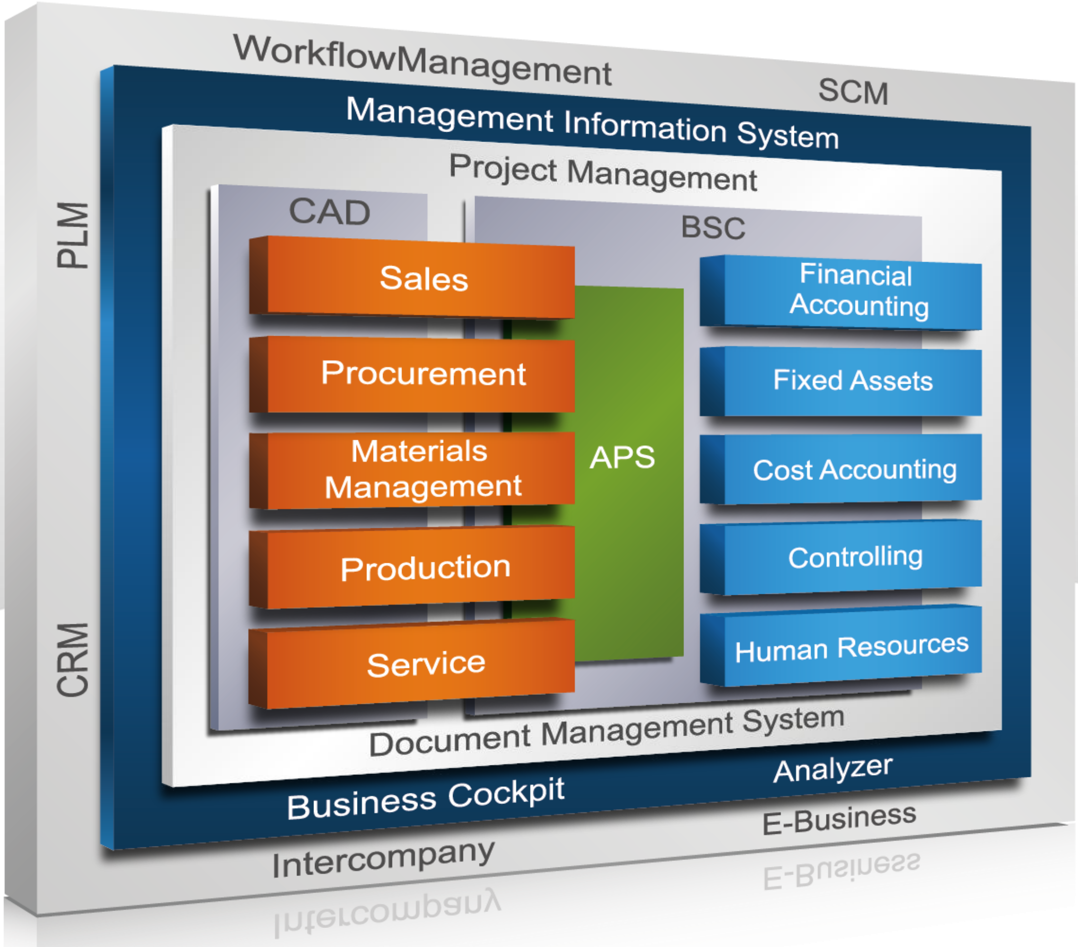
proALPHA – Partner for Small and Medium Sized Enterprises

----DATEN AKTUALISIEREN ----

Product:	Standard software proALPHA®	
Services:	IT consulting, project management, implementation, seminars, maintenance, support and hotline	
Target market:	Small and medium-sized industrial, trade and service enterprises	
Figures:	Customers	1,700
	Revenue 2011/2012	54.5 million €
	EBIT	10.8 million €
	Employees (as of 03/2013)	> 560
Board of management:	Leo Ernst	Corporate development
	Werner Ernst	Technology strategy
	Jürgen Brand	Finances
	Markus Klahn	Sales
	Matthias Kläsener	Technology and consulting
Supervisory board:	Dr. W. Wawrzinek	Lawyer and auditor in Hamburg
	Jan-Christopher Kling	Tax advisor and auditor in Kaiserslautern
	Prof. Dr. H. Müller-Merbach	TU Kaiserslautern
	Prof. Dr. H.-O. Günther	TU Berlin

The application proALPHA®



International Presence of proALPHA and its Partners

Worldwide 27 branches and partners

More than 1,700 installations in more than 48 countries

15 language and country versions

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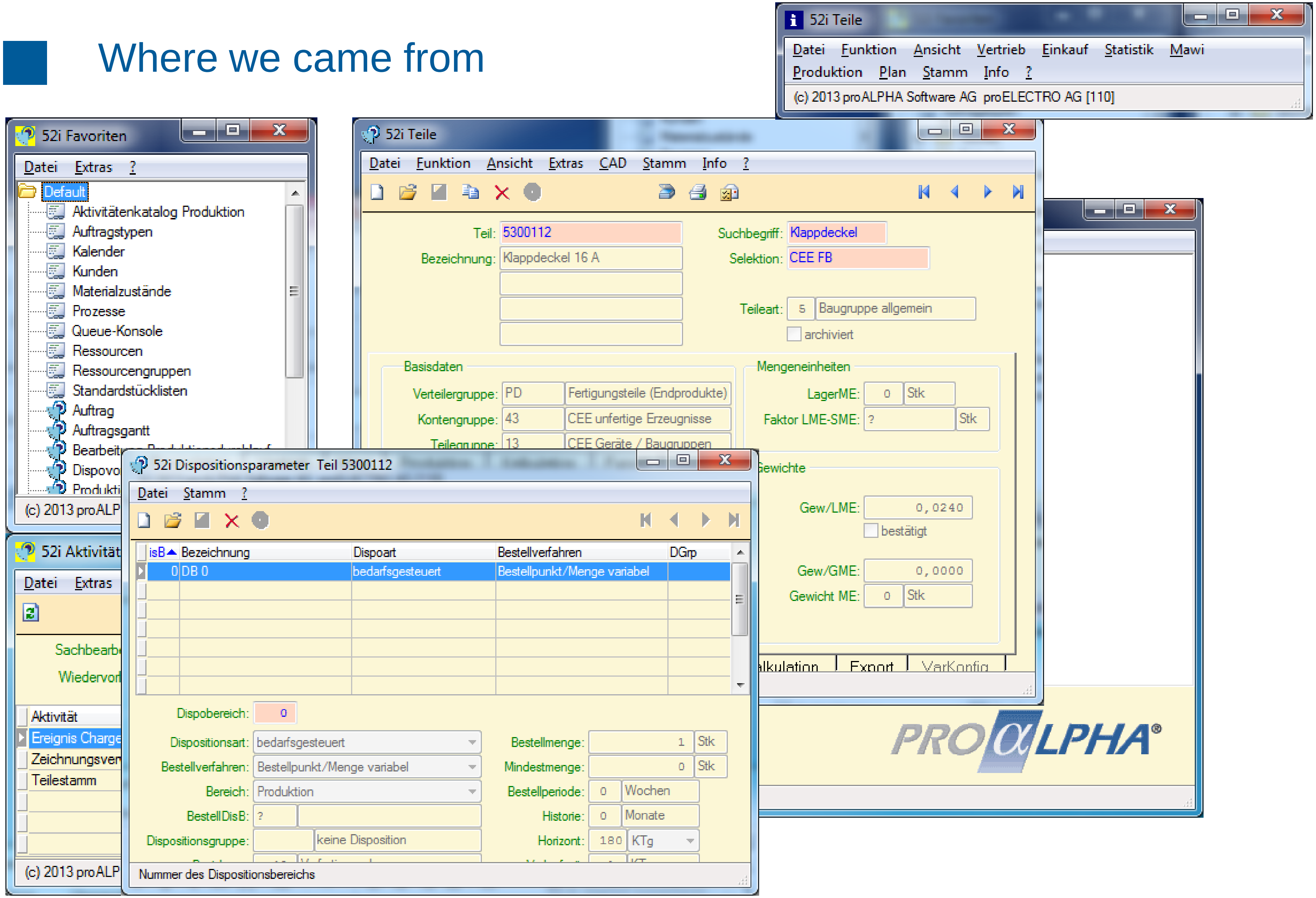
Where we came from



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Teil: 5300112
Suchbegriff: Klappdeckel
Bezeichnung: Klappdeckel 16 A
Selektion: CEE FB
Teileart: 5 Baugruppe allgemein
☐ archiviert

Verteilergruppe: PD Fertigungsteile (Endprodukte)
Kontengruppe: 43 CEE unfertige Erzeugnisse
Teilegruppe: 13 CEE Geräte / Baugruppen

LagerME: 0 Stk
Faktor LME-SME: ? Stk

Gew/LME: 0,0240
☐ bestätigt
Gew/GME: 0,0000
Gewicht ME: 0 Stk

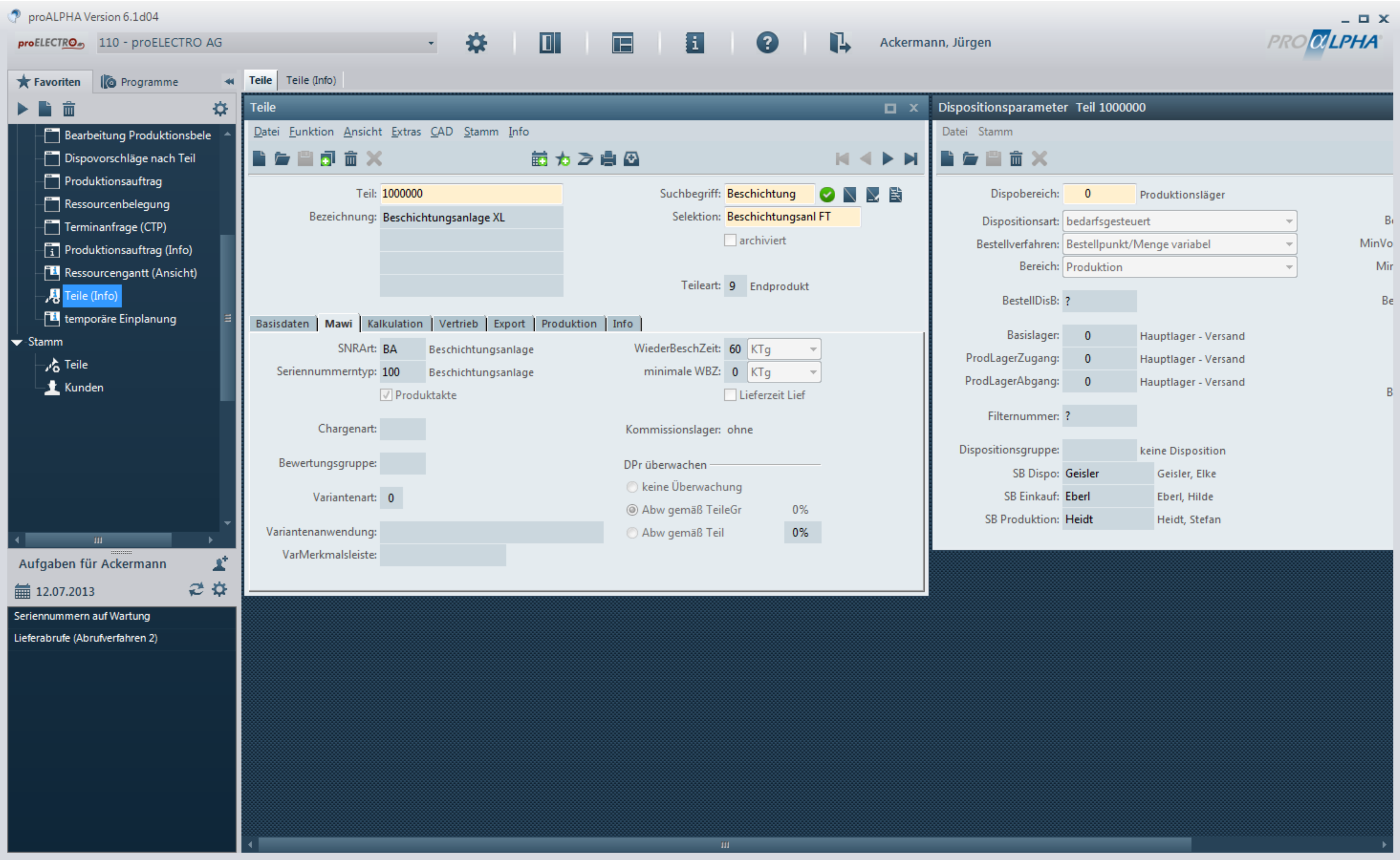
isB	Bezeichnung	Dispoart	Bestellverfahren	DGrp
0	DB 0	bedarfsgesteuert	Bestellpunkt/Menge variabel	

Dispobereich: 0
Dispositionsart: bedarfsgesteuert
Bestellverfahren: Bestellpunkt/Menge variabel
Bereich: Produktion
BestellDisB: ?
Dispositionsgruppe: keine Disposition
Bestellmenge: 1 Stk
Mindestmenge: 0 Stk
Bestellperiode: 0 Wochen
Historie: 0 Monate
Horizont: 180 KTg

Nummer des Dispositionsbereichs

(c) 2013 proALP

What we have today



110 - proELECTRO AG

- Bearbeitung Produktionsbele
- Dispovorschläge nach Teil
- Produktionsauftrag
- Ressourcenbelegung
- Terminanfrage (CTP)
- Produktionsauftrag (Info)
- Ressourcengantt (Ansicht)
- Teile (Info)
- temporäre Einplanung
- Stamm
  - Teile
  - Kunden

Aufgaben für Ackermann

12.07.2013

Seriennummern auf Wartung

Lieferabrufe (Abrufverfahren 2)

Teile

Teil: 1000000

Bezeichnung: Beschichtungsanlage XL

Suchbegriff: Beschichtung

Selektion: Beschichtungsanl FT

☐ archiviert

Teileart: 9 Endprodukt

SNRArt: BA Beschichtungsanlage

Seriennummerntyp: 100 Beschichtungsanlage

☑ Produktakte

Chargenart:

Bewertungsgruppe:

Variantenart: 0

Variantenanwendung:

VarMerkmalsleiste:

WiederBeschZeit: 60 KTg

minimale WBZ: 0 KTg

☐ Lieferzeit Lief

Kommissionslager: ohne

DPr überwachen

○ keine Überwachung

● Abw gemäß TeileGr 0%

○ Abw gemäß Teil 0%

Dispositionsparameter Teil 1000000

Dispobereich: 0 Produktionsläger

Dispositionsart: bedarfsgesteuert

Bestellverfahren: Bestellpunkt/Menge variabel

Bereich: Produktion

BestellDisB: ?

Basislager: 0 Hauptlager - Versand

ProdLagerZugang: 0 Hauptlager - Versand

ProdLagerAbgang: 0 Hauptlager - Versand

Filternummer: ?

Dispositionsgruppe: keine Disposition

SB Dispo: Geisler Geisler, Elke

SB Einkauf: Eberl Eberl, Hilde

SB Produktion: Heidt Heidt, Stefan

Back to the initial situation

Thousend of screens within a complex soution

Somewhat strange, but powerful „Multi-Windowing“ UI

- Experienced customers loved it – but not always used it in the expected way
- Learning curve for new users
- Sales hated it
  - Need to explain
  - Irritating at first glance
  - „Should look lime Outlook“

????

The first steps

Q4 /2011

- Project definition
- Identifying potential design professionals
- Two contracts

Q1/2012

- Presentation of current solution
- Customer visits
- Design begins

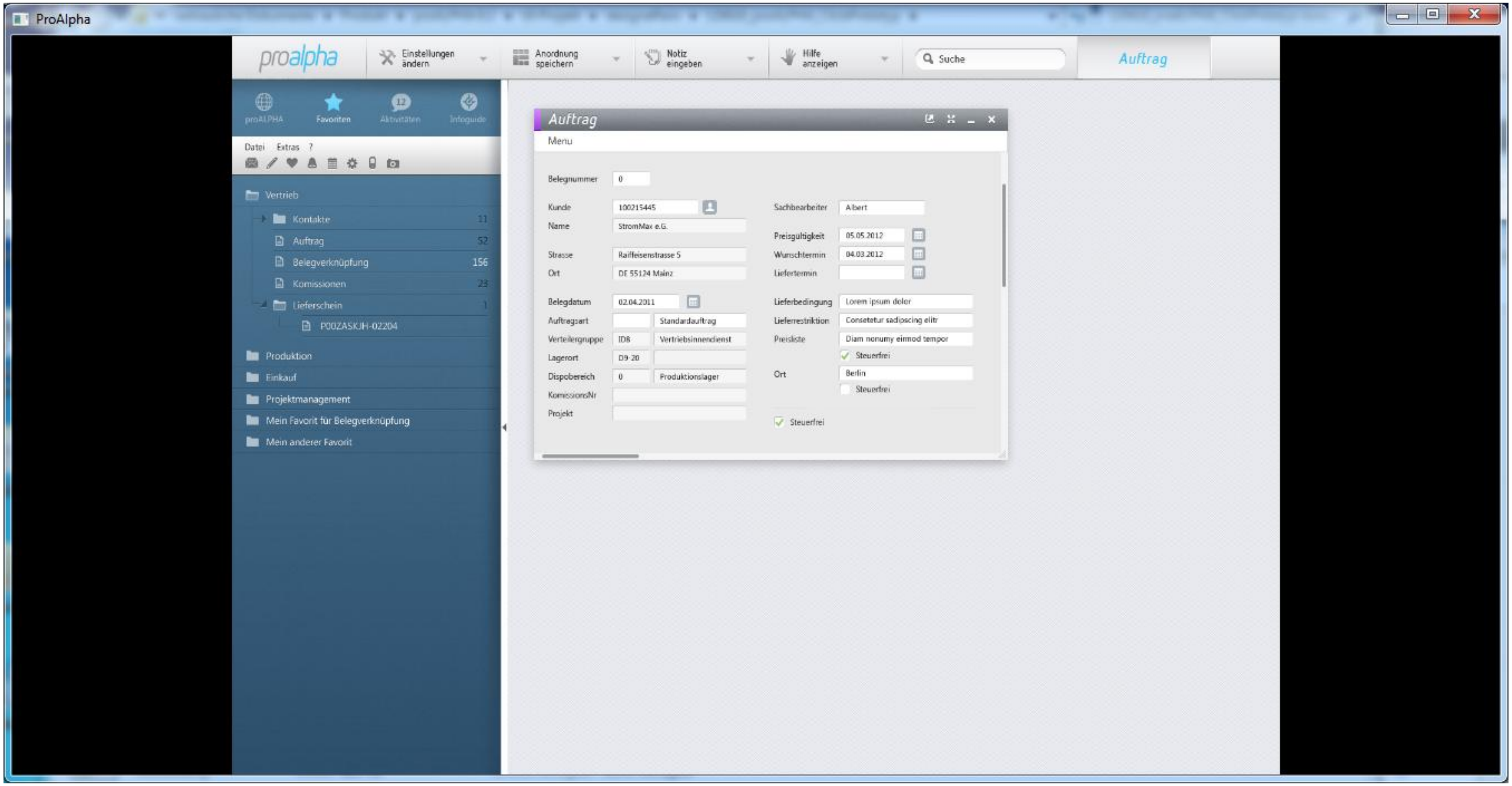
May 2012

- Presentation of results
- Decision about the winning concept
- Finalizing concept

June 2012

- Management presentation

What the management has seen



Vertrieb
- Kontakte 11
- Auftrag 52
- Belegverknüpfung 156
- Komissionen 23
- Lieferschein 1
  - P00ZASKJH-02204

Produktion

Einkauf

Projektmanagement

Mein Favorit für Belegverknüpfung

Mein anderer Favorit

Auftrag

Belegnummer	0			
Kunde	100215445		Sachbearbeiter	Albert
Name	StromMax e.G.		Preisgültigkeit	05.05.2012
Strasse	Raiffeisenstrasse 5		Wunschtermin	04.03.2012
Ort	DE 55124 Mainz		Liefertermin	
Belegdatum	02.04.2011		Lieferbedingung	Lorem ipsum dolor
Auftragsart		Standardauftrag	Lieferrestriktion	Consetetur sadipscing elitr
Verteilergruppe	ID8	Vertriebsinnendienst	Preisliste	Diam nonumy eirmod tempor
Lagerort	D9-20			☑ Steuerfrei
Dispobereich	0	Produktionslager	Ort	Berlin
KomissionsNr				☐ Steuerfrei
Projekt				

☑ Steuerfrei

And now?

Sales/Marketing: want it **now, but at least asap**!

Development: Rewriting entire UI using different technology will

- take years
- create lots of additional costs
    - Education of developers
    - Software licenses
    - Migration of individual code

What‘s the UX concept behind the prototype

if we abstract from optical effects?

One application instead of lonesome windows

Clear structure with static position of main components (favorites, …)

Separation of dependent/independent UI-components in scenarios

“Smart positioning” of new screens

Better readability due to other fonts and colors

The big question:

Can we implement at least most of the concepts
without re-writing the entire UI?

What are the limitations of the OpenEdge UI?

Basically the widgets

- No control on look and feel of toggle-box, combo ….
- Limited control on other widgets
  - for example no left-alignment of labels
- Very old fashioned grid (browse widget)

Some others

- No “end-move” event for windows
- …

Let’s try it!

July 2012

- Workshop with designers
  - Walk through
  - Identifying options and limits
- Working on screen concept
  - Colors, Fonts, Rectangles …

Aug 2012

- Combining favorites, menu and workflow monitor
- Managing position of windows
- Corporate visit in Bedford – wow, we can replace the OpenEdge window by a .Net form
- Design of managing .Net container starts

Sept 2012

- **“Point of no return” reached**
- Adjustments to ABL UI to use the new font
- Defining new icon set
- Work on color schema

Oct 2012

- Design of new startup screen
- Optimization of misc. concepts and features
- Get it ready!

The work to be done

Build the controlling container as well as the .Net window container

- Done by a small team
- Sometimes more trial and error than real programming

Build a .Net menu

- Easy since menu was already dnamically rendered (repository)
- Based on some previous work with Mike Fechner (winkit)

Adjust screens due to new fonts (24 x 6 instead of 23 x 5 pixels)

- Done independandtly from the container work
- „Old“ fashioned UI is implicitly still there

Lift the courtain

November 6th 2012

- Presentation for development
  - No developer outside the core team has seen the final result before

- Presentation for sales & marketing
  - … during the technical check in preparation of the yearly customer event

November 7th 2012

- Presentation during last talk of yearly customer event

.. the hard work until FCS

Understanding the secrets of .Net and the .Net bridge

- … if you go that way, you should hire an experienced .Net developer
- From the perspective of an OE-developer some implementation techniques look like good old Assember

Tuning, Tuning, Tuning …

- Performance is typically not a problem during a demo
- End-User wants to have a compelling **and** fast UI

Continuous UX optimization

- Even developers begin to change their mind

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What you‘ve seen

.. Summary of demo highlights

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Worry about User Experience (UX)

Today, business applications are expected to have a good UX

- UX is not automatically provided by a certain technology!
- Developers are typically not UX experts
  - Involve professionals in the process of redesign
  - Implement UX responsibilities in product management

Worry about User Experience (UX)

UX is an important part of the entire marketing and communication strategy

- The UI is the “face” of your application
- Understand, what end-users expect and how they use the software
    - Learn more about how your software is really used
    - Take your developers with you and let them talk with customers

UX optimization is an ongoing process

- Trends get out of style
- There’s always potential for improvements

Designers are not technicians!

Concepts do typically not consider technical limitations

- Color gradients instead of single colors
- 4x4 pixel size bitmaps as background
- No understanding of widget limitations

That’s the developers job

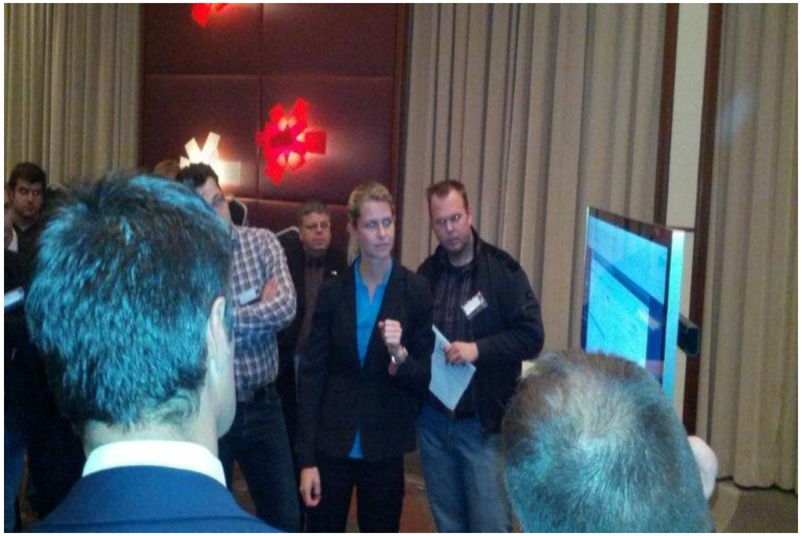
- “nice” screens should still perform well in a cloud/virtualized environment

The good news

OpenEdge gives you a lot of options to create a real UX

You can increase UX extremely without rewriting the entire UI

.. as long as you except some limitations



A final statement

Our way might not be applicable for everyone

- Business logic is the core of the application
- We can live with some restrictions, at least for a while
- OpenEdge ABL is still an option in the UI
  - Easier to use as .Net
  - One technology for the entire application

Our message to Progress

- Do not ignore the good old ABL based UI
- If possible, just give us same more “state of the art” widgets