E-Quality

CONQUEST 2001

Nicolai Josuttis

Quality in the E-Business

- "You can rant and rave all you want about software quality (or lack there of), but the marketing guys run the world and they want market share now...

  period, end of discussion.

  My job is to deliver on time on budget, with the 'appropriate' quality metrics."

(Telecom Development Manager according to Jim Highsmith)

Thus

There is no explicit time for quality anymore

The Project

- **goal:**
  - mission critical banking application
  - 50.000 simultaneous users
  - low bandwidth

- **more than 100 software developers**

- **first approach failed** after some years

- thus, not much time and trust for new approach
  - **3 month for architecture and „reference implementation"**

Process Variables

- **Variables:**
  - Scope
  - Resources / Cost
  - Time
  - Quality

- **How to give quality more priority?**

- **Make QM integrated element of the process**
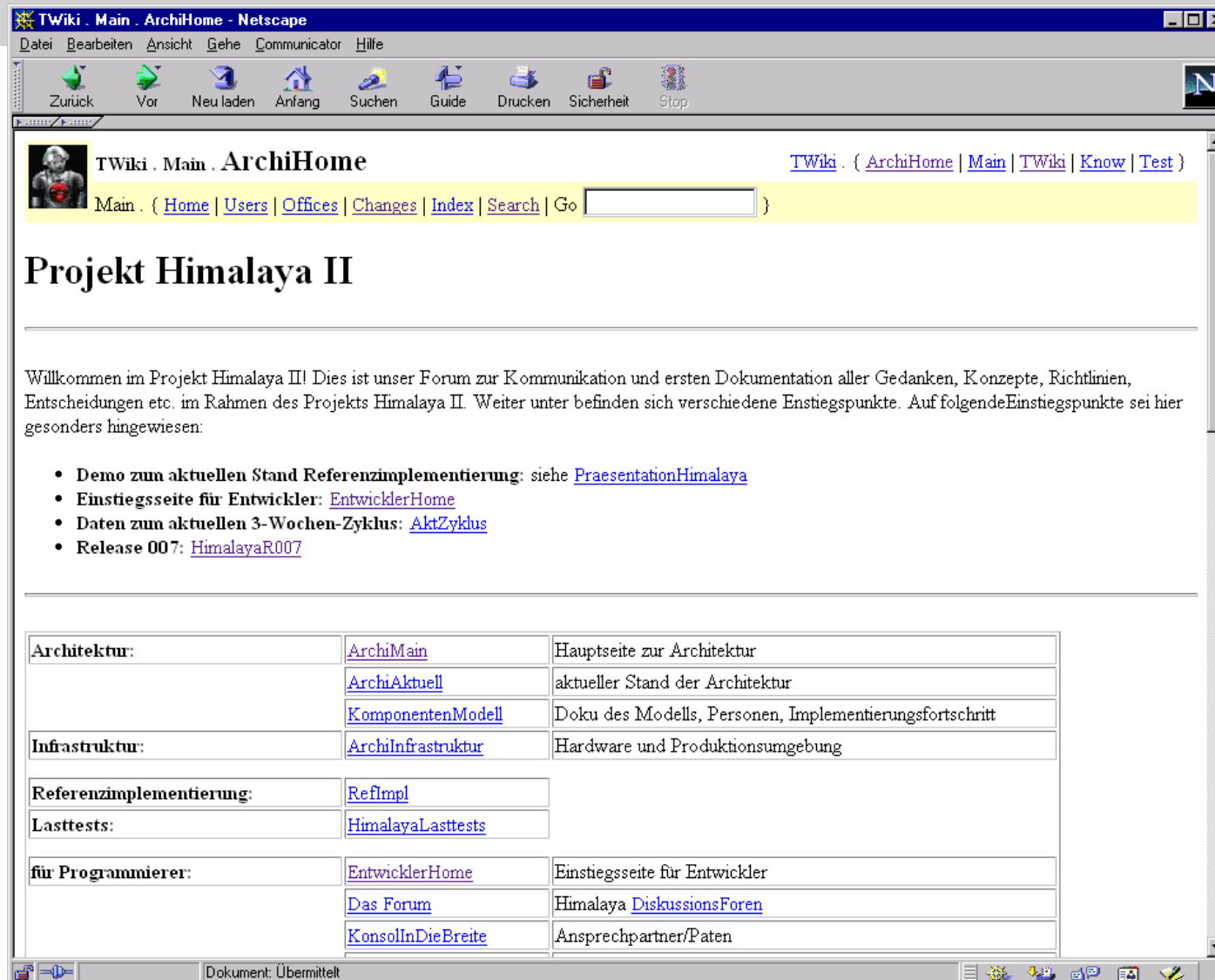
The Quality of Quality

- **Quality does not mean formality**
  - QWAN: Quality without a Name
    - „code that smells"

- **„Bug free" has no top priority**
  - it follows from quality

Quality

- Must became part of the process

- Elements:
  - **Transparency**
  - **Communication**
  - **Discipline**
    - continuous integration
    - testing
  - **Fun**

Force Transparency

- **Introduction of a Wiki-Web**
  - twiki.org

- **communication and transparency** for
  - developers
  - QA
  - controlling / revision
  - customers

- **practices and values:**
  - shared ownership
  - shared knowledge
  - shared skill
  - no head monopolies

TWiki . Main . ArchiHome - Netscape

Datei Bearbeiten Ansicht Gehe Communicator Hilfe

| Zurück | Vor | Neu laden | Anfang | Suchen | Guide | Drucken | Sicherheit | Stop |

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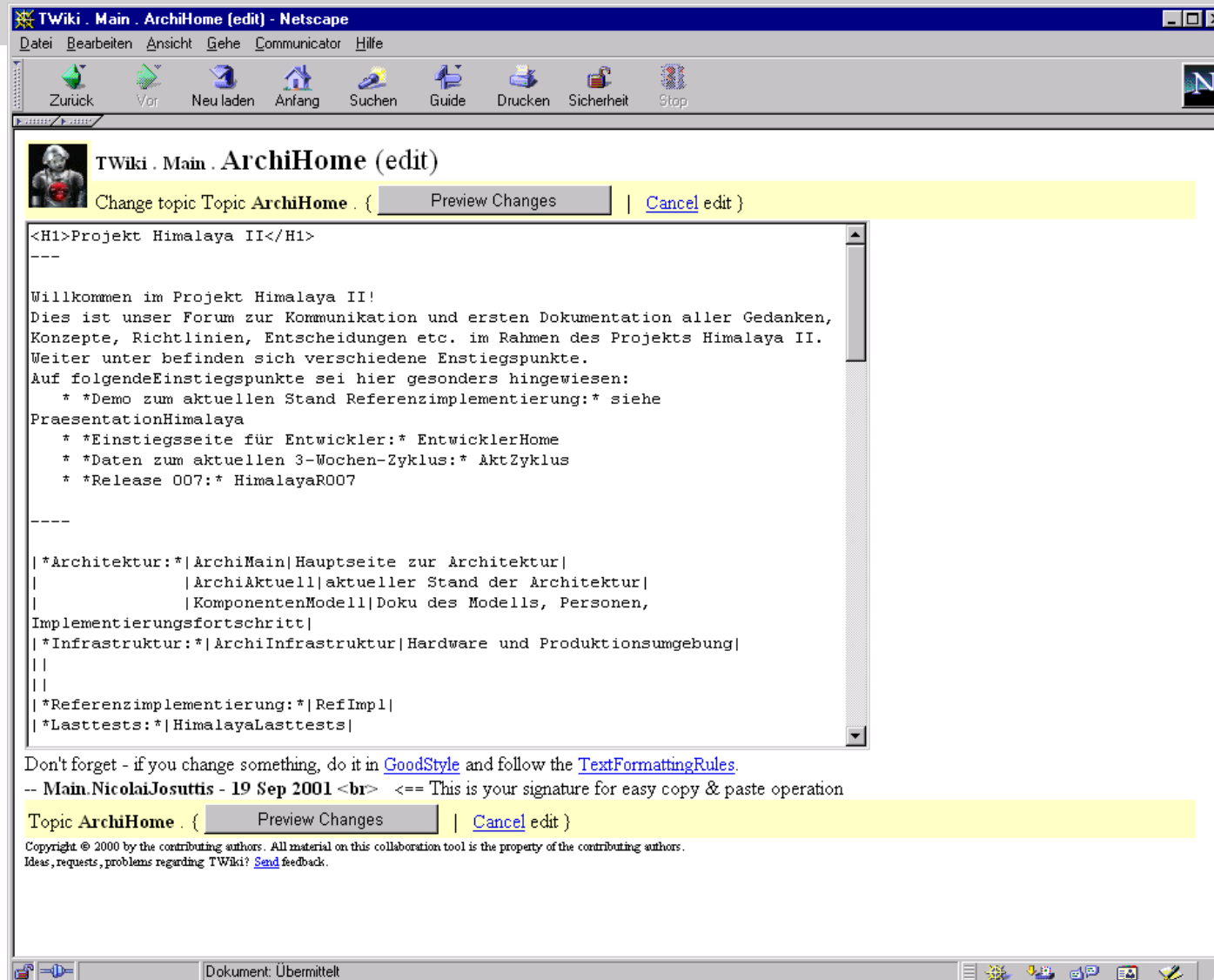Main . { Home | Users | Offices | Changes | Index | Search | Go [   ] }

Projekt Himalaya II

Willkommen im Projekt Himalaya II! Dies ist unser Forum zur Kommunikation und ersten Dokumentation aller Gedanken, Konzepte, Richtlinien, Entscheidungen etc. im Rahmen des Projekts Himalaya II. Weiter unter befinden sich verschiedene Enstiegspunkte. Auf folgendeEinstiegspunkte sei hier gesonders hingewiesen:

- **Demo zum aktuellen Stand Referenzimplementierung**: siehe PraesentationHimalaya
- **Einstiegsseite für Entwickler**: EntwicklerHome
- **Daten zum aktuellen 3-Wochen-Zyklus**: AktZyklus
- **Release 007**: HimalayaR007

Architektur:	ArchiMain	Hauptseite zur Architektur
	ArchiAktuell	aktueller Stand der Architektur
	KomponentenModell	Doku des Modells, Personen, Implementierungsfortschritt
Infrastruktur:	ArchiInfrastruktur	Hardware und Produktionsumgebung
Referenzimplementierung:	RefImpl	
Lasttests:	HimalayaLasttests	
für Programmierer:	EntwicklerHome	Einstiegsseite für Entwickler
	Das Forum	Himalaya DiskussionsForen
	KonsolInDieBreite	Ansprechpartner/Paten

Dokument: Übermittelt

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Change topic Topic **ArchiHome** . {   Preview Changes | Cancel edit }

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|*Architektur:*|ArchiMain|Hauptseite zur Architektur|
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||
|*Referenzimplementierung:*|RefImpl|
|*Lasttests:*|HimalayaLasttests|
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-- Main.NicolaiJosuttis - 19 Sep 2001
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Force Communication

- **E-Mail and Meetings**

- **Plenary assembly and info meetings**

- **BBQs**

- **Wiki-Web**

- **Office 21**
  - mobile desks

- **Avoid Bottlenecks**

Avoid Bottlenecks

- **Avoid technical bottlenecks**
  - avoid global resources
  - avoid singletons
  - ...

- **Avoid organizational bottlenecks**
  - modules/components instead
    of one BOM (business object model)
  - stable interfaces
    - clear roles

Force Discipline

- **Continuous Integration**
  - Timeboxing

- **External Reviews**
  - Reviews by Gartner, BEA, SUN, IBM, ...

- **Internal Reviews and Code Inspection**
  - active marketing of concepts and interfaces
  - developers review developers

- **Removing deprecated interfaces**

- **Checks**
  - **forbidden aspects**
  - **metrics**

Timeboxing

- **fix period of 3 or 4 weeks**
- at the end
  - – success or
  - – reasons for failure
  - – no overtime

- start with **planning session** of teams
  - – according to milestones and dependencies
- every week **feedback**
- **all developers**
  - – technical and business components

- **double check effort with master plan**

Force Testing

- **Unit-Tests**
  - the should/must be more test code than code
  - for each individual class, component, module, ...

- **JUnit**
  - **junit.org**

- **Note:**
  - Special support for tests necessary
    - dummy contexts
  - GUI tests are more difficult
  - Separation of presentation and core application supports easy tests of business logic

Force Fun

- **Regeneration**
  - force vacation
  - avoid extra times

- **Contests**

- **Satisfaction**
  - results
  - customer feedback

What else?

- **KISS**

  – „I built a lot of large systems,
  but I never built a complex system"
  [Kerth, Meszaros, Doble]

  – „Start stupid and evolve"
  [Kent Beck]

- **Change people and roles**

  – many projects fail due to people in wrong positions

Errors are Part of the Process

- *"Do It Right the First Time"* sends the wrong message
    - we can't be uncertain
    - we can't experiment
    - we can't learn from mistakes
    - we can't deviate from plan

- *"Don't worry about getting it right the first time, get it right the last time."*

XP follows CMM

- "I predict that Kent Beck and his XP movement will be as much a symbol of our times as Watts Humphry and the CMM were a symbol of the eighties and early nineties."

(Tom DeMarco, Cutter Report on Light Methodologies)

The Agile Manifesto

While we value the items on the right,

we value the items on the left more:

- **Individuals and interactions** over **processes and tools**.

- **Working software** over **comprehensive documentation**.

- **Customer collaboration** over **contract negotiation**.

- **Responding to change** over **following a plan**.

Noch Fragen, Hauser?

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