Software for export

A developer's perspective

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Issues in
- architecture
- development
- delivery & maintenance

Enterprise software

- Enterprise constraints
  - ▫ Database server
  - ▫ Application framework
  - ▫ Operating system
  - ▫ Customization
- Maintenance constraints
  - ▫ Source code availability
  - ▫ Confederated logging & monitoring
- *The BOFH issue…*

Effects of scalability

- Architecture
  - Scaling *up* vs scaling *out*
  - Tried-and-trusted vs proprietary
  - Database-centric solutions
    - Single-site vs multi-site
- Plan for maintenance
  - Live updates
  - Disjoint versioning

Localization

- Formatting
  - Locale in distributed systems
  - OS dependencies
- Text
  - Codepages vs Unicode
  - IMEs
- Images
  - Icons, toolbars, banners, abstract concepts
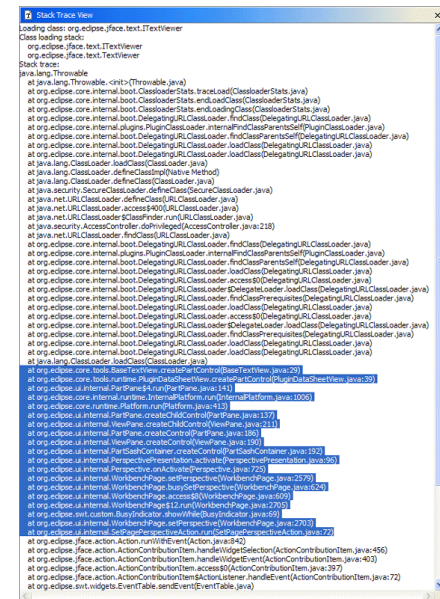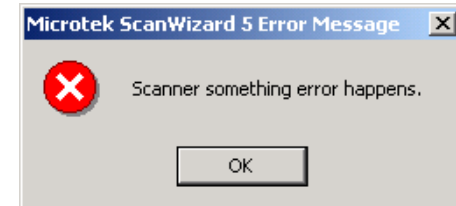- Interpreting time

Security

- Authentication & Authorization
  - Standard vs proprietary
  - Password management
- Classical attacks
  - SQL injection
  - Script injection
- Advanced attacks
- Export/import limitations [cryptography]

Error Reporting

- "This should never happen" dialogs
- Log files
- Alerts
- "dumps"
  - Stack
  - Mini / app

Impact of localization

- UI is finalized in
  - Online help
  - Offline help
  - Training materials
- Locale-specific UIs
- Impact on development
  - Resistance to change
  - Reduced velocity

Quality Assurance

- Development
- Internal QA
  - ▫ Functionality
  - ▫ Usability
  - ▫ Integration
- Outsourced(?) QA
  - ▫ Robot testing
  - ▫ Compatibility testing
  - ▫ Load & Performance testing
  - ▫ Local testing
- Beta testing

3rd-tier support

- 24/7 availability
  - In all timezones
- 3rd-tier support
  - Remote debugging
  - On-site support
- Software longevity
  - Knowledge management
  - Issue tracking

Q & A

Icelandic for Dev Teams

- Shipping with source
- Technical documentation
  - local admins
- Skillset availability
  - Scaling the team
  - Multi-site development
  - Local customizations
- Team communications
  - email, jargon
- Exit strategies

The Bastard Operator from Hell

- ~~**Inbound connections**~~
- Outbound connections
  - ▫ ~~**UDP**~~, ~~**TCP**~~, ~~HTTP~~, HTTPs , ~~**RPC**~~, Web Services
  - ▫ Proxies
- Server-2-client ~~**notifications**~~
  - ▫ ~~**Push**~~ vs poll
- ~~Automatic updates~~
- ~~Client-side scripting~~
- ~~Remote administration~~

Assumptions

- *E.g. the BOFH issue*
- Networking
  - Broadband availability
  - Internet availability
    - Wired / Unwired
- Environment
  - OS Longevity
  - Software Popularity