

# NaturalOne

## Releasemanagement and Issue Tracking

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Software AG

**International User Groups**



# NaturalOne

## Releasemanagement and Issue Tracking

### Agenda

About the system

About the project

NaturalOne  
Redmine and Subversion

Advanced Project Management and  
Administration



# About the system

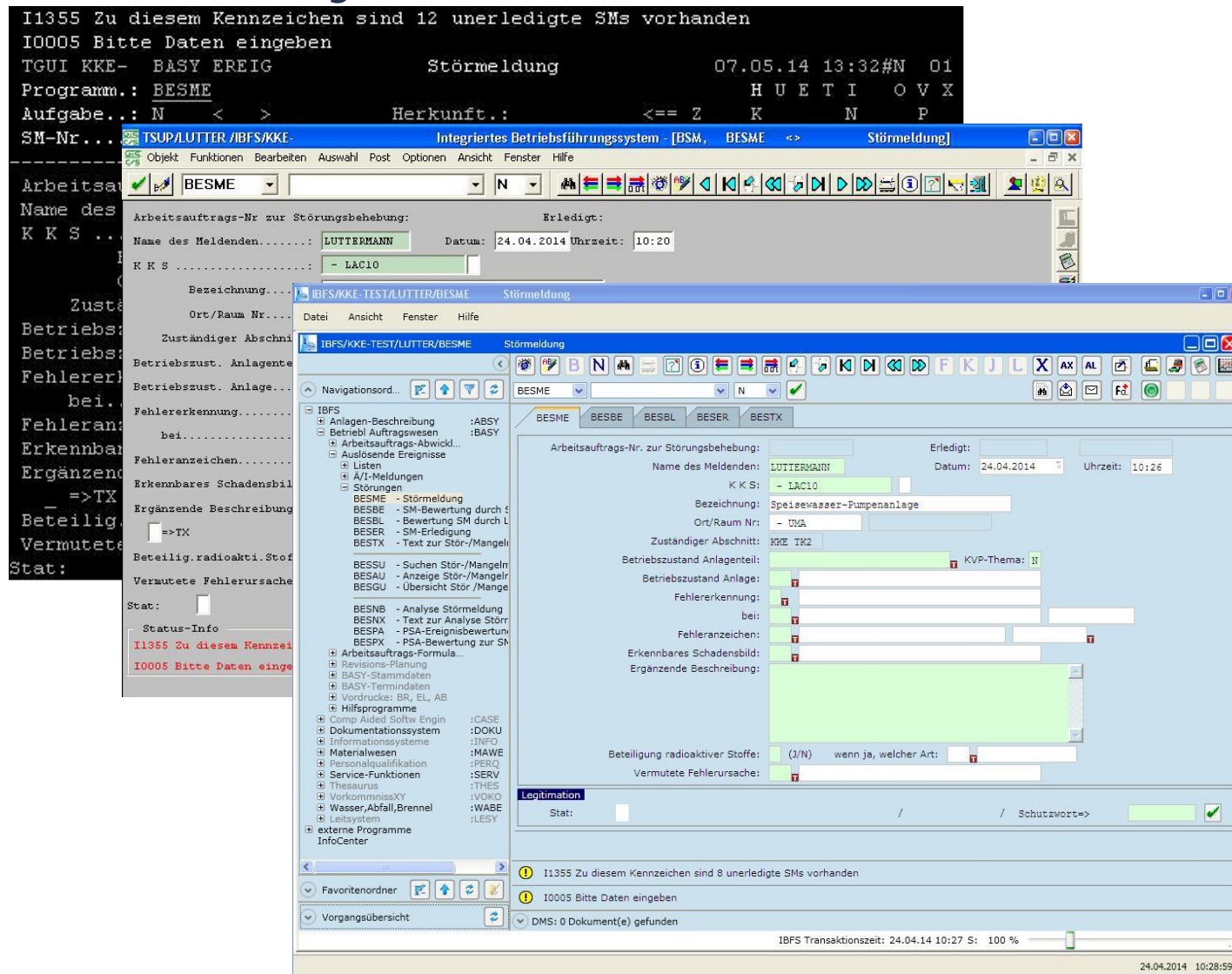


# Factsheet IBFS

IBFS is an Asset Management System for KKE  
Kernkraftwerk Emsland, a nuclear powerplant of RWE and EON.

- 859 Applications with 1600 Naturalmaps
- 600 Customerworkstations
- 141 different print forms, 254 print lists
- Over 40000 sourceobjects with NaturalOne

# IBFS History





# About the project



# IBFS2020

## GUI

Modernize all existing maps to modern webpages.

Changing 859 applications with 1600 maps to 167 combined pages and 197 single pages

Begin Sept. 2011  
Still running

## PL1

Substitute linked PL1-Modules with C and Natural Modules

33 PL1-Modules replaced with 153 subprograms and 33 C-Modules

Begin Sept. 2011  
End June 2013

## FORM

Conversion of print forms (Prescribe) to PDF/A.

141 print forms and 254 print lists

Begin Aug. 2013  
Still running

# Basic conditions of the project IBFS2020

- Existing programs will be changed to use NaturalOne Webpages
- Require to maintain the production system independent of the development process in the different subprojects
- All subprojects need their own base of the code with the same source (Copy of production system at project start)
- Merging of “golive” from subprojects to all other subprojects, maintenance and main codebase
- Parallel changes at the same base of source code of all team members inside a subproject



# Project Setup

## Project Setup (Dec 2010 - Sept 2011)

- POC with Software AG Global Consulting
- Preparing requirement analytic and projectplan at customersite
- Preparing the workstations
- Developer workshop (SAG)
- Kickoff

## Setup Subversion (June 2012)

- Setup trunk, branch...
- Preparing servers (DEV, TEST, QS)
- Subversion workshops
- Provide deployscripts

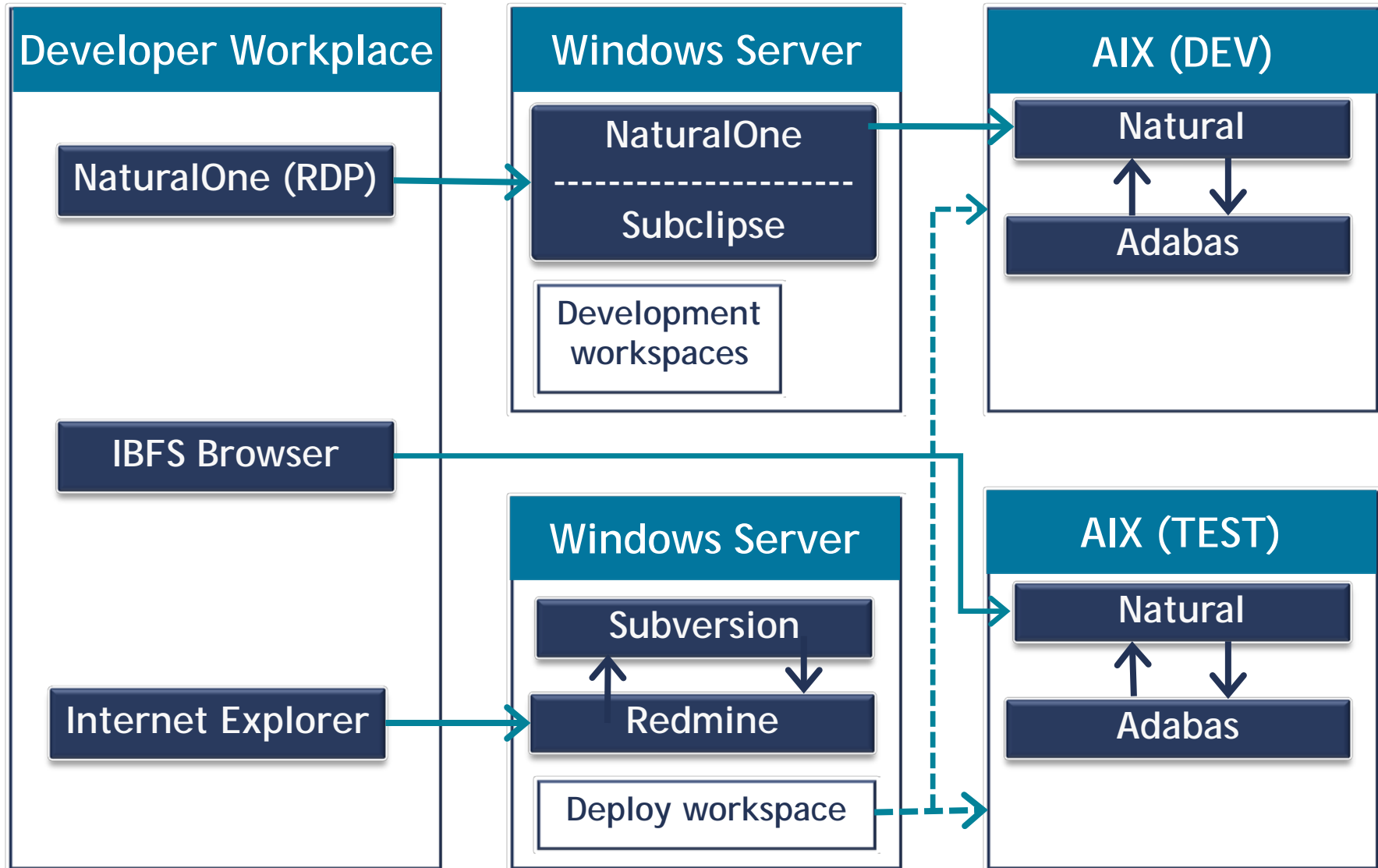
## Setup Redmine (July 2012)

- Defining fields, workflow...
- Setup projects
- Redmine workshops

## Link Redmine to Subversion

- Link Subversion repositories
- Implement the Subversion hooks
  - Issue-ID in NaturalOne commit comment
  - Minimum length for comment 15 chars.
  - Autoupdate issue after commit
- Implement trigger for advanced administration

# Infrastructure Development



# Infrastructure Server (AIX)

## DEVELOPMENT

- Especially as runtime for NaturalOne
- Developertests in Workspace
- 1 FUSER
- 1 Nucleus for PL1 Substitution
- 1 Nucleus for other projects
- 1 private Steplib per User
- Deployment triggered by Redmine with Natural Ant

## TEST

- Testsystem for developers and Qualitymanagement
- 1 FUSER per SVN Branch
- 1 Nucleus for PL1 Substitution
- 1 Nucleus for other projects
- 1 private Steplib per User
- Deployment triggered by Redmine with Natural Ant

# Infrastructure Server (AIX)

## QUALITYMANAGEMENT

- Qualitymanagementsystem
- 1 FUSER
- 1 Nucleus
- No deployment from Workspace
- Automatic file export from Testsystem triggered by Redmine
- Nearly the same release state as production system

## PRODUCTION

- Productionsystem
- 1 FUSER
- 1 Nucleus
- No deployment from NaturalOne Workspace
- File export from Qualitysystem triggered by Administrator

# NaturalOne Redmine and Subversion



# Some words about Subversion

Apache Subversion (SVN) is a software versioning and revision control system distributed as free software under Apache Licence.

The main usage of SVN in the project is:

- Version and revision control
- Merge of projects after “golive”
- Submitting changes to redmine by referencing the issue id at commit process (ex. “**#1234** this is a comment-text”)
- Generating changesets based on issue id or version id from Redmine
- Deployment directly from workspace Server (DEV and TEST)



# Some words about Redmine

Redmine is a free and open source, web based project management and bug tracking tool.

The main usage of Redmine in our project is:

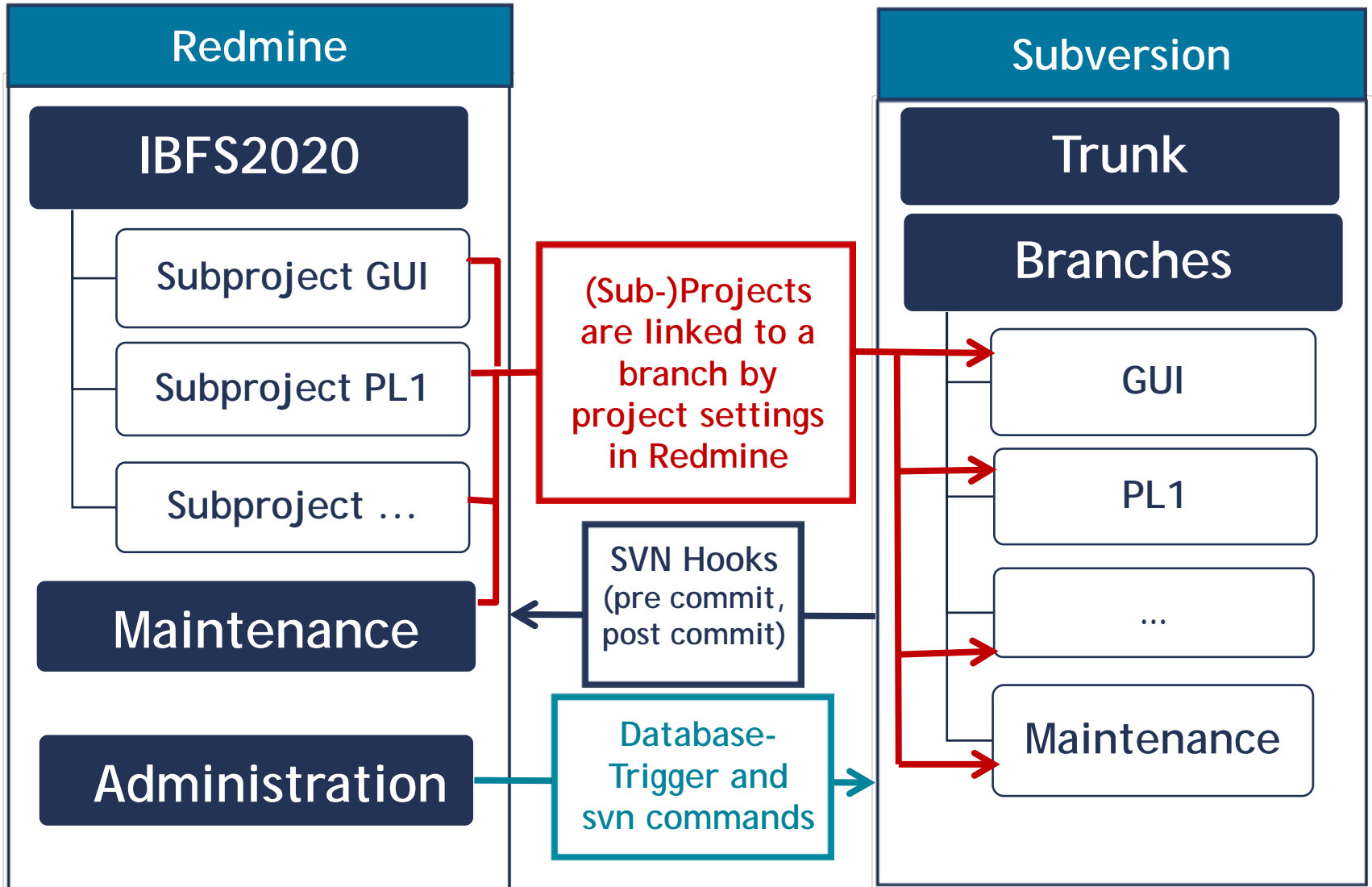
- Roadmaps of all projects
- Issue tracking (without issue -> no development)
- Version control (building Softwarepackages)
- User defined queries
- Document management (all project based documents)
- Project management (task allocation, statistics, reports, workflow)
- Project administration
  - Deployment
  - Changeset based file export
  - Email notification (Reminder)

# Some words about Redmine

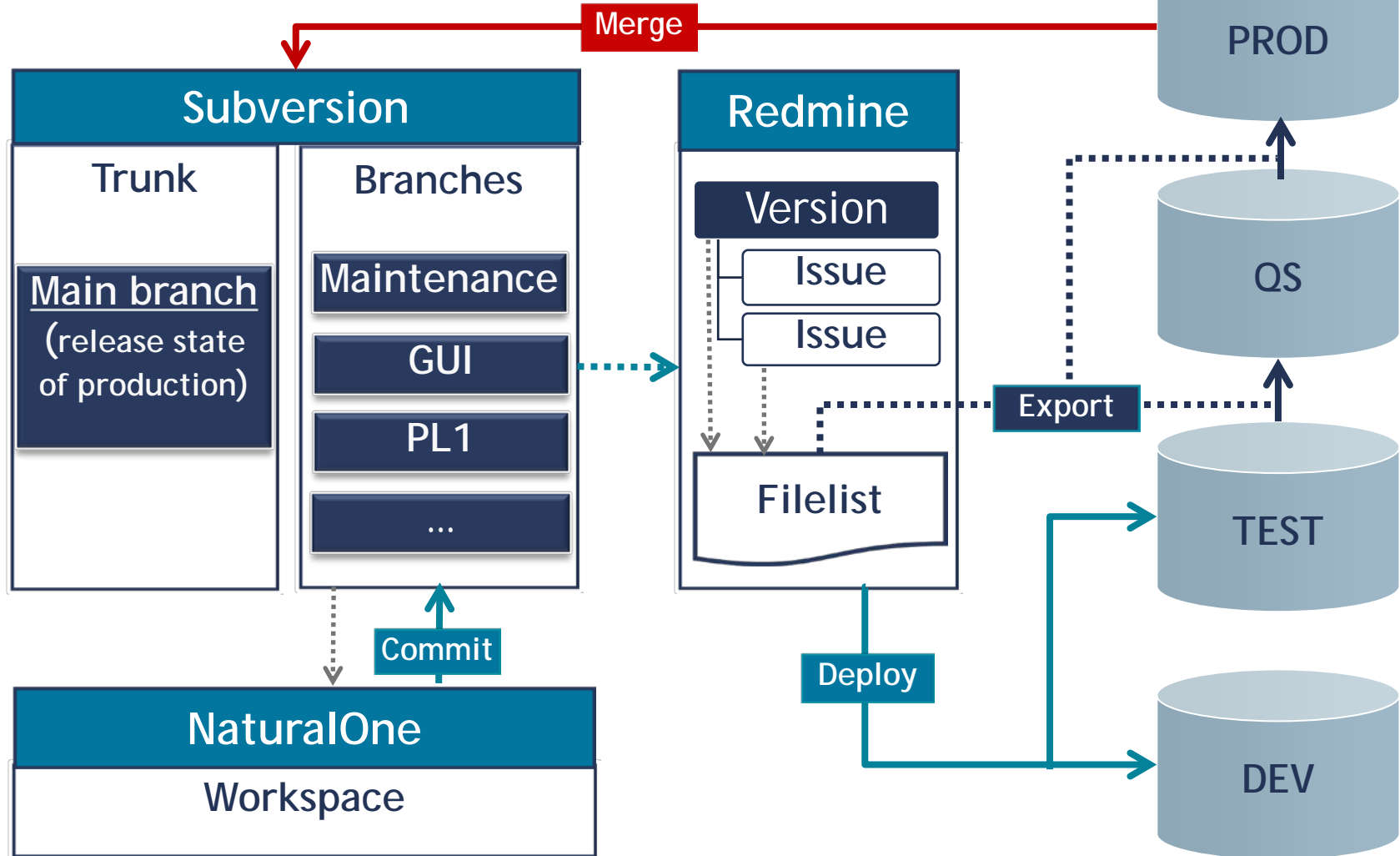
Functions of Redmine we don't use:

- Time tracking
- Wiki
- Forums
- Calendar
- Gantt

# Linking Redmine to Subversion



# NaturalOne Develop, Deploy and Merge



# Develop, Deploy and Merge (Demo project)

## Travel 2000 » Travel 2000 GUI-Umstellung

Übersicht
Aktivität
Roadmap
Tickets
Neues Ticket
Gantt-Diagramm
Kalender
News
Dokumente
Wiki
Dateien
Projektarchiv
Konfiguration

**Übersicht**

**Feature #1**

Bearbeiten
Aufwand buchen
Nicht beobachten
Kopieren
Löschen

Anpassungen der Loginmaske bzgl. der Revisionsanzeige

Von Wilfried

**Revision 8**

**Revision 8 Natural-Libraries/TRAVEL/SRC/LOGIN.NSP**

Unterschiede anzeigen:
☐ einspaltig
☒ nebeneinander

LOGIN.NSP			
76	3	MG-FIRST-NAME (A20)	76 3 MG-FIRST-NAME (A20)
77	3	MG-NAME (A20)	77 3 MG-NAME (A20)
78	3	MG-DEPT (A6)	78 3 MG-DEPT (A6)
79		djhdjasddäqwidh	79
80	1	#ERROR-MSG(A) DYNAMIC	80 1 #ERROR-MSG(A) DYNAMIC
81	/*	Better use SYSERR instead....	81 /* Better use SYSERR instead....
82	1	#MSG2(A/1:4) DYNAMIC INIT	82 1 #MSG2(A/1:4) DYNAMIC INIT

Roa
Fällig
Trave
1 Tick
Zugel
Feat

Status:
Priorität:
Zugewiesen:
Kategorie:
Zielversion:
Anwender:
Beschreibung:
In der Loginn:
Es soll unter:
Version:
Version:
Unteraufgabt:
Zugehörige:
Historie:
Von Wilfried:
Ziele:
Von Wilfried:

**Feature #1**

**Revision 8**

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Auch abrufen

# Advanced Projectmanagement and Administration





# Advanced Projectmanagement and Administration based on own customer Tools

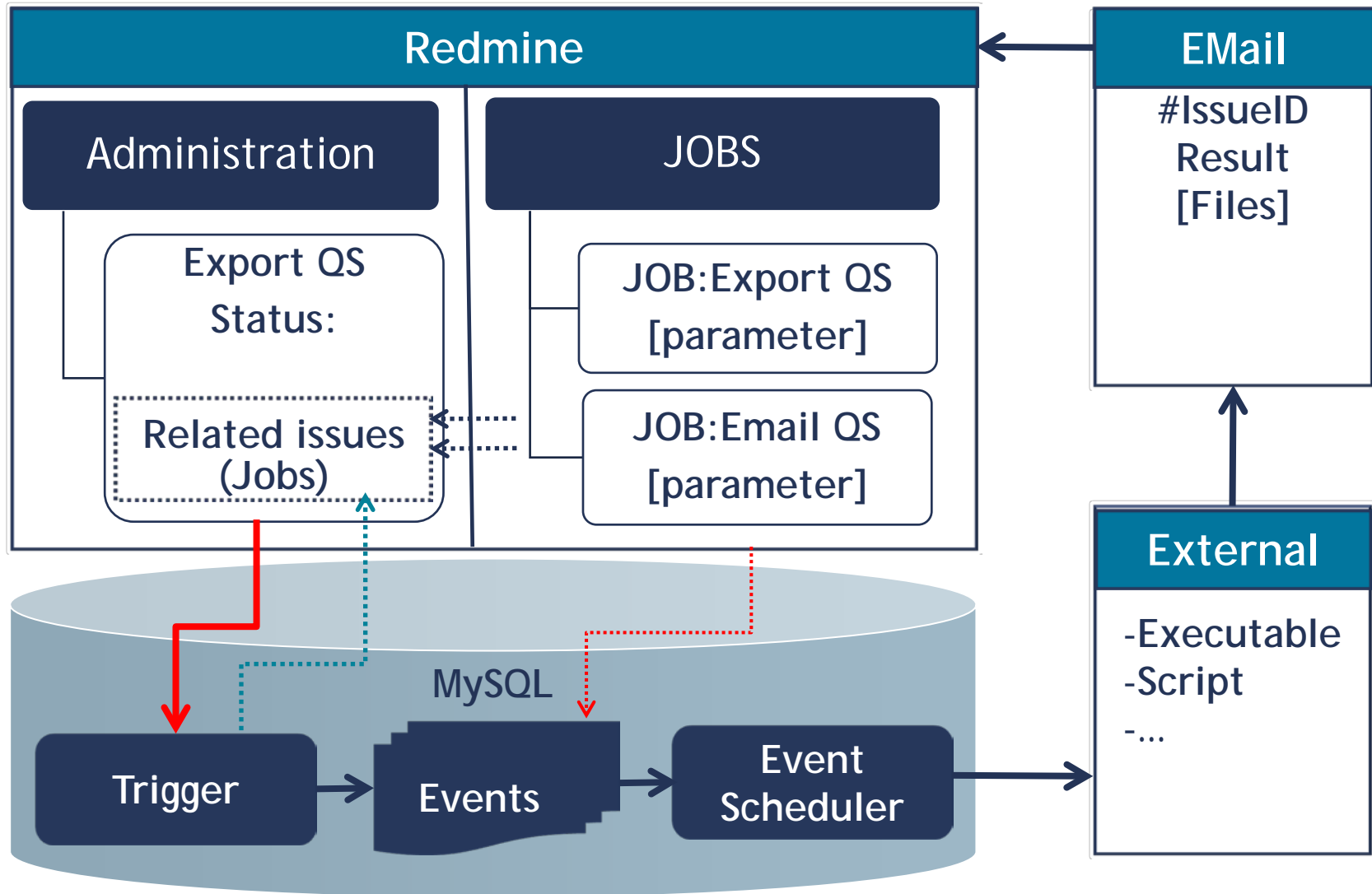
## Why do we use it

- Easy user assignment with redmine
- Using existing infrastructure
- Using history of redmine
- Using Documentmanagement of redmine
- Using workflows of redmine

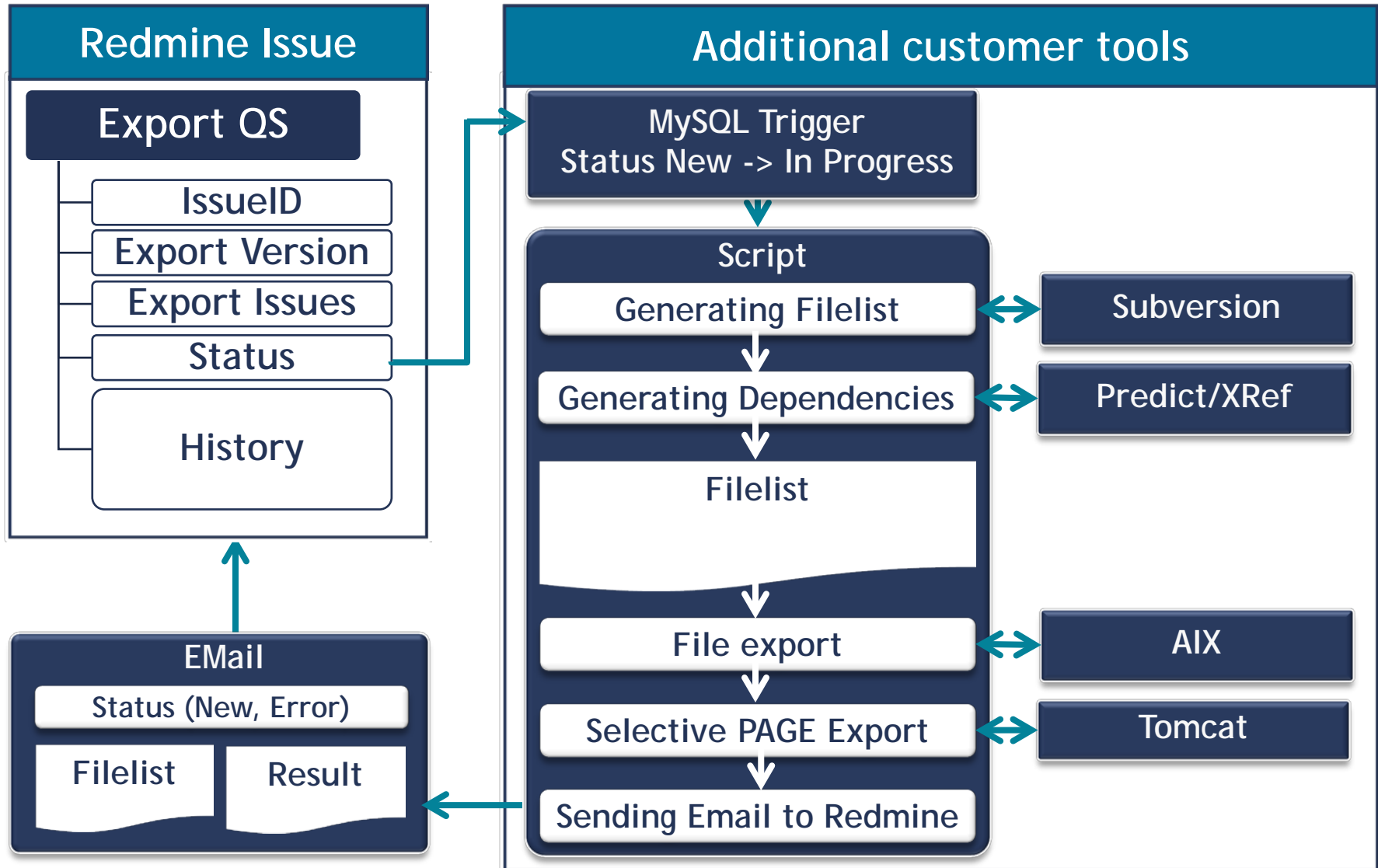
## For what do we use it

- Issue Tracking
- Deployment
- Fileexport
- Export of single pages to tomcat without full deploy of interface components
- Backup
- Reminder
- Automatic Reports

# General schematic (example)



# Detailed example



# Statistics about Subversion and Redmine

## Subversion

- 4 Repositories
- 1 Main codebase (Trunk) per Repository
- 11 Branches
- ~6500 commits (30-40 commits per day)
- >420000 files under version control
- >13000 changed sources
- ~ 3GB Harddisc space

## Redmine

- 4 Development Projects
- 2 Projects for Administration
- ~60 Versions
- 1200 Issues
- ~2200 Files (Attachments, Documents, Logfiles...)
- >70 Users
- ~430 Deployments (since Oct. 2013)
- ~380 File exports to QS
- ~245 File exports to Production

# Thank you

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**Get There Faster**