



MatchPoint SCM

Best Practice for Software Change
Management

Christoph Heinrich
CM First Group

Agenda

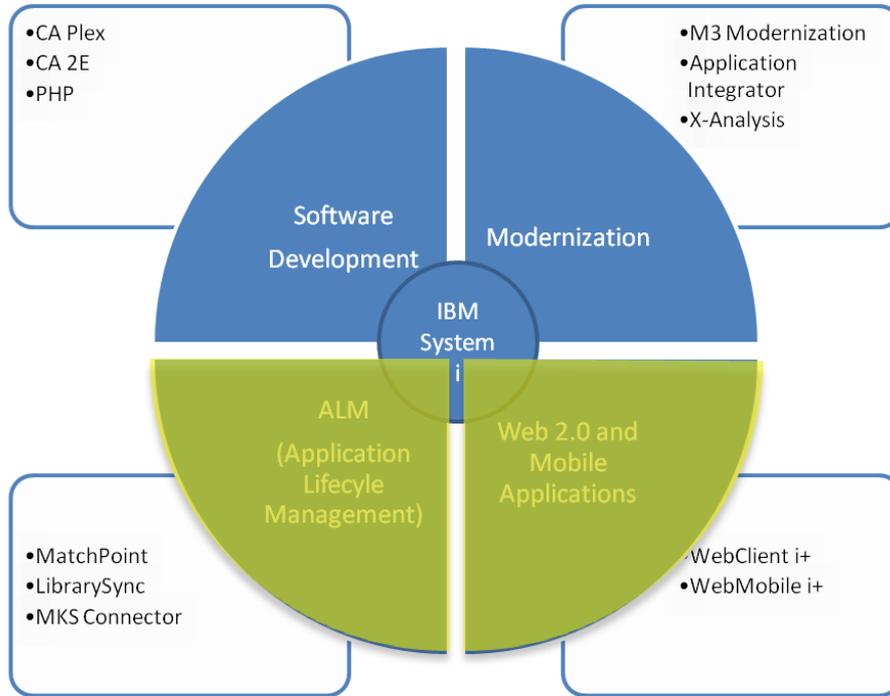
- CM First
- MatchPoint Overview and new Features
 - Extended Java / C# Support for Model Import
 - Subversion Integration
 - MatchPoint Mobile
- Demo
- Best Practice in Software Change Management
 - Department of Justice, Zurich

Company Profile

- **CM First Group with Swiss Headquarters**
 - Focus on Quality and Reliability
- **International Presence**
 - Zug, Milan, Austin, Worldwide reseller partners
- **CA Primary Partner**
 - Euro Zone, North America
- **Quality Proven Products**
 - WebClient i+ (and PHP, Websydian)
 - Matchpoint i+, MKS Connector
 - Daborough X-Analysis
 - CA Repository Scanners
 - Worksoft Certify



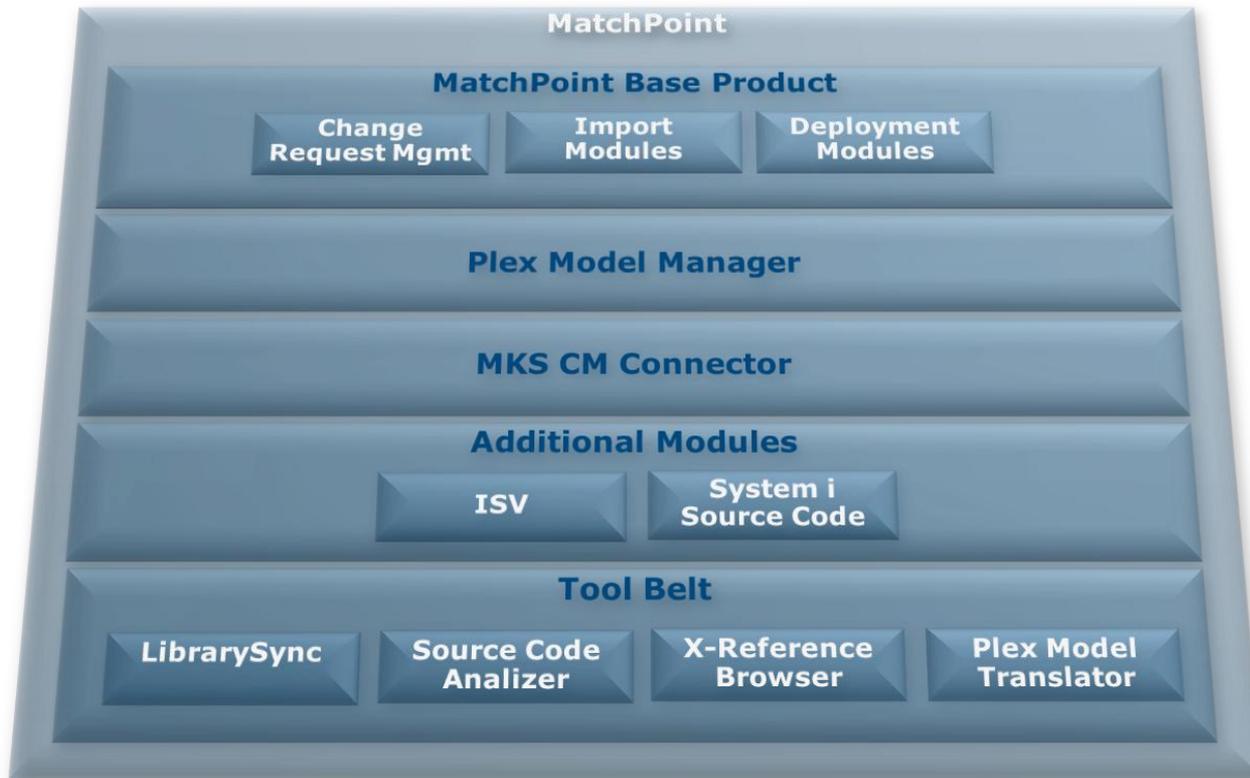
CM First Portfolio





MatchPoint Overview

MatchPoint Overview



MatchPoint Overview

MatchPoint - Software Change Management

File Select Master Data Extras Billing View Window Help

Edit Change Requests

CR Number: 0 Priority: 0 Requester: Tester Application: Human Ressource 2
 CR Description: Developer: HEC Christoph Heinrich Version: Subsystem: CR Type: Project: Environment: Product: CR Group: Customer:

View: Internal External All

| Application | Version | CR Number | CR Description | Priority | Depend | Obj | Note | Harmed End Date | CR Status | CR Type Description | Developer Name | CR current Description | Subs |
|-------------|---------|-----------|---|----------|--------|-----|------|-----------------|-----------------------------------|---------------------|----------------|-----------------------------|----------|
| H2 | V300 | 2007315 | Model Import | 1 | | | | 01.07.2011 | development | Production Error | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007092 | New Requirement on Person | 2 | | | | 30.06.2011 | ready for promotion | Release | Heinrich | Test Hapisol II V3.0.0 | Address |
| H2 | V300 | 2005244 | New field on address panel | 2 | | | | 17.05.2011 | test | New Requirement | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007314 | FileSystem Import | 1 | | | | 15.05.2011 | development | New Requirement | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007227 | correction on initial cr status | 0 | | | | 11.05.2011 | approval pending | New Requirement | Heinrich | Development Hapisol II V3.0 | Address |
| H2 | V300 | 2007085 | CR Description | 0 | | | | 11.05.2011 | approval pending | New Requirement | Heinrich | Development Hapisol II V3.0 | Address |
| H2 | V300 | 2007313 | New Function to create departments | 1 | | | | 01.05.2011 | ready for promotion to production | New Requirement | Heinrich | Test Hapisol II V3.0.0 | Address |
| H2 | V300 | 2007133 | Cum PTF 06050 | 0 | | | | 20.04.2011 | approval pending | Cumulative PTF | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007249 | Release R45 | 3 | | | | 17.04.2011 | ready for promotion | Release | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007195 | Change position of field in address field 233 | 2 | | | | 15.04.2011 | test | New Requirement | Heinrich | Test Hapisol II V3.0.0 | Contract |
| H2 | V300 | 2007162 | Change Sort of Fields on Panel et564 | 1 | | | | 04.04.2011 | test | New Requirement | Heinrich | Test Hapisol II V3.0.0 | Address |
| H2 | V300 | 2007038 | New Field on Department | 2 | | | | 25.03.2010 | ready for promotion | New Requirement | Heinrich | Development Hapisol II V3.0 | |

Edit Models

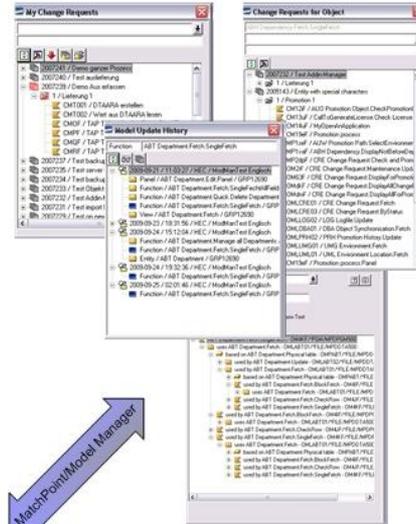
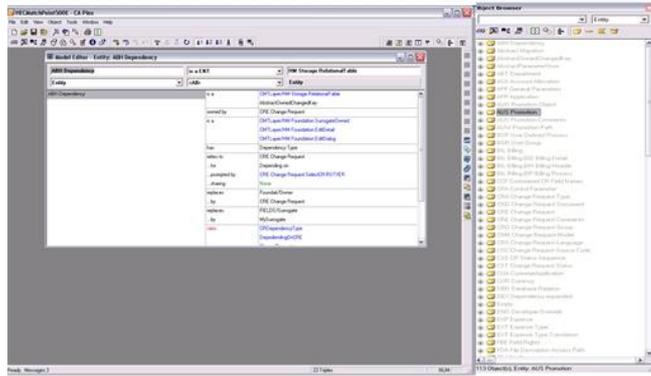
Model Name: Application: Model Type: Template Normal
 Model Status: Extracted Version: User ID:

| Plex Version | Model Surrogate | Model Name | Model Description | User ID | Model File Name | Model Status | Model Type | Last Update Date | Last Update Time |
|--------------|-----------------|---------------------|----------------------------|---------|--|--------------|------------|------------------|------------------|
| 2 | 301 | Tutorial Java | Tutorial Java | HEC | D:\MP\test\TutorialJava\TUTORIALJAVA.mdl | Extracted | Normal | 00.00.0000 | 00.00.00 |
| 2 | 299 | ModManTest Englisch | Test Model Manager English | HEC | D:\MatchPoint\test\ModMan\HEC\LocalModel\HECModel\estE.mdl | Extracted | Normal | 00.00.0000 | 00.00.00 |

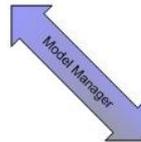
Ready NUM

MatchPoint – CA Plex Integration

MatchPoint Add-Ins for CA Plex provide SCM-Features for the CA Plex Model Environment



- Check out objects
- Update History
- Deployment History
- System i X-Reference



MatchP

lex



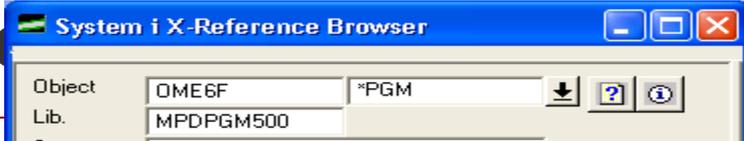
Change Requests for Object

CRE Change Request.DisplayAllForPromotion

2005197 / Cum PTF 44

2005182 / Demo 2

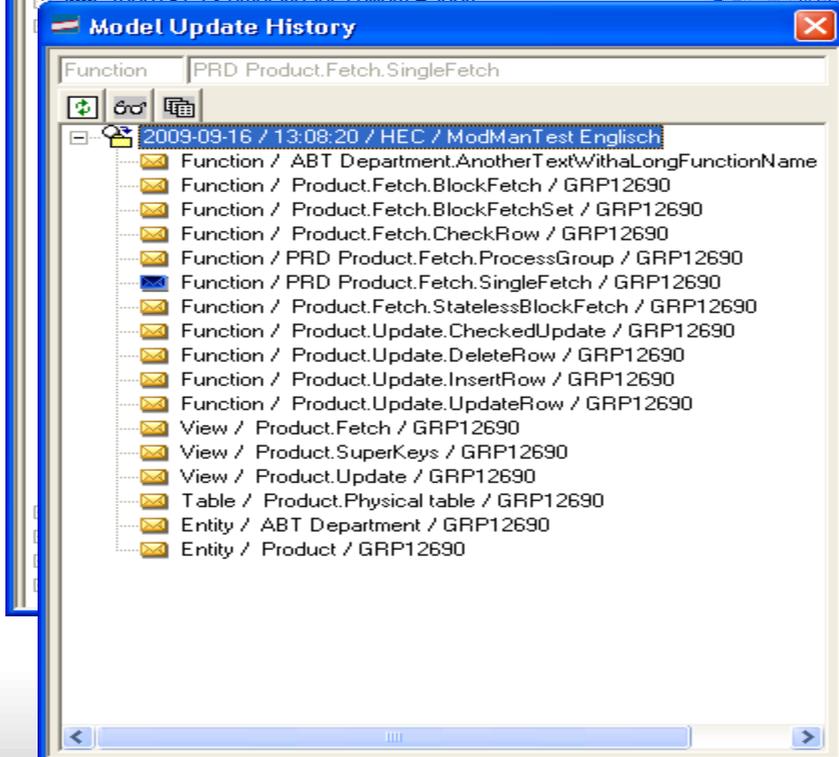
2005181 / Kurulstiv 44 Yellow Base



System i X-Reference Browser

Object OME6F *PGM

Lib. MPDPGM500

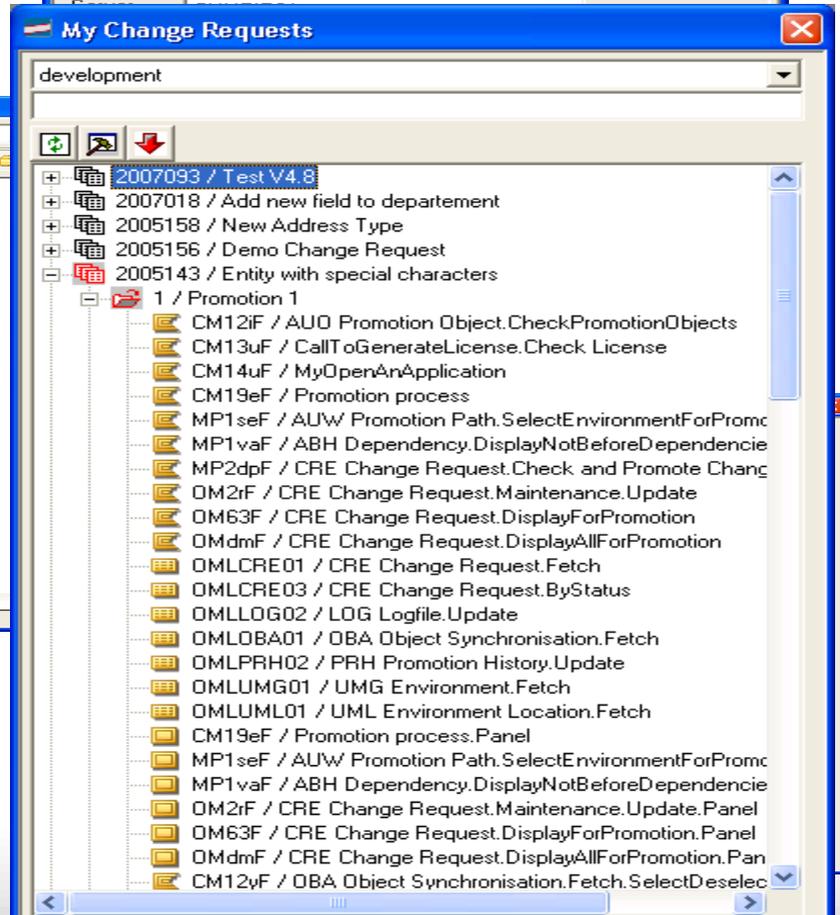


Model Update History

Function PRD Product.Fetch.SingleFetch

2009-09-16 / 13:08:20 / HEC / ModManTest.English

- Function / ABT Department.AnotherTextWithLongFunctionName
- Function / Product.Fetch.BlockFetch / GRP12690
- Function / Product.Fetch.BlockFetchSet / GRP12690
- Function / Product.Fetch.CheckRow / GRP12690
- Function / PRD Product.Fetch.ProcessGroup / GRP12690
- Function / PRD Product.Fetch.SingleFetch / GRP12690
- Function / Product.Fetch.StatelessBlockFetch / GRP12690
- Function / Product.Update.CheckedUpdate / GRP12690
- Function / Product.Update.DeleteRow / GRP12690
- Function / Product.Update.InsertRow / GRP12690
- Function / Product.Update.UpdateRow / GRP12690
- View / Product.Fetch / GRP12690
- View / Product.SuperKeys / GRP12690
- View / Product.Update / GRP12690
- Table / Product.Physical table / GRP12690
- Entity / ABT Department / GRP12690
- Entity / Product / GRP12690



My Change Requests

development

2007093 / Test V4.8

- 2007018 / Add new field to departement
- 2005158 / New Address Type
- 2005156 / Demo Change Request
- 2005143 / Entity with special characters
 - 1 / Promotion 1
 - CM12fF / AUO Promotion Object.CheckPromotionObjects
 - CM13uF / CallToGenerateLicense.Check License
 - CM14uF / MyOpenAnApplication
 - CM19eF / Promotion process
 - MP1seF / AUW Promotion Path.SelectEnvironmentForProm
 - MP1vaF / ABH Dependency.DisplayNotBeforeDependencie
 - MP2dpF / CRE Change Request.Check and Promote Chang
 - OM2rF / CRE Change Request.Maintenance.Update
 - OM63F / CRE Change Request.DisplayForPromotion
 - OMdmF / CRE Change Request.DisplayAllForPromotion
 - OMLCRE01 / CRE Change Request.Fetch
 - OMLCRE03 / CRE Change Request.ByStatus
 - OMLLOG02 / LOG Logfile.Update
 - OMLOBA01 / OBA Object Synchronisation.Fetch
 - OMLPRH02 / PRH Promotion History.Update
 - OMLUMG01 / UMG Environment.Fetch
 - OMLUML01 / UML Environment Location.Fetch
 - CM19eF / Promotion process.Panel
 - MP1seF / AUW Promotion Path.SelectEnvironmentForProm
 - MP1vaF / ABH Dependency.DisplayNotBeforeDependencie
 - OM2rF / CRE Change Request.Maintenance.Update.Panel
 - OM63F / CRE Change Request.DisplayForPromotion.Panel
 - OMdmF / CRE Change Request.DisplayAllForPromotion.Pan
 - CM12vF / OBA Object Synchronisation.Fetch.SelectDeselec



*Extended Java and C# Support
for Model Import*

Java Support

Edit TripleMatch

Import all scoped
 Import view functions

Import Object with Status: *Blank

HEC
CM1clF

OK

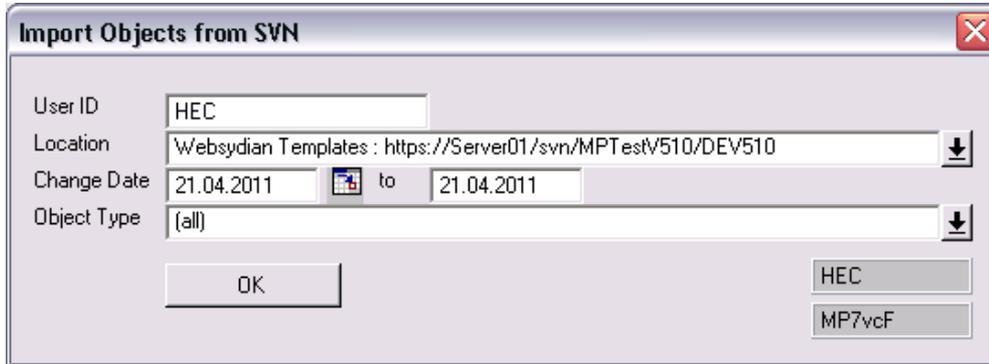
| | Sort Field | Object type | AliasName | Compare | Target | Connector | Additional Object | Description | Impl-Name Override | Process Target | Ignore Conflict | Optional Object | Ob |
|--|------------|-------------|-----------------------|---------|--------|-----------|-------------------------------------|-------------|--------------------|-------------------------------------|-------------------------------------|-------------------------------------|----|
| | 10 | Function | language SYS | EQ | WinC | | <input checked="" type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | DL |
| | 20 | Function | panel PNL | EQ | * | | <input type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PN |
| | 40 | Function | language SYS | EQ | Java | | <input checked="" type="checkbox"/> | | &_ObFnc | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CL |
| | 41 | Function | language SYS | EQ | Java | | <input checked="" type="checkbox"/> | | &_ObIn | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CL |
| | 42 | Function | language SYS | EQ | Java | | <input checked="" type="checkbox"/> | | &_ObOut | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CL |
| | 43 | Function | language SYS | EQ | Java | | <input checked="" type="checkbox"/> | | &_ObFnc&_ObD | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CL |
| | 46 | Function | panel PNL | EQ | * | | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PN |
| | 47 | Function | panel PNL | EQ | * | | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RE |
| | 48 | Function | panel PNL | EQ | * | | <input checked="" type="checkbox"/> | | &_ObFnc&_ObP | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | CL |
| | 49 | Function | calls FNC | EQ | * | | <input checked="" type="checkbox"/> | | &_ObIn | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CL |
| | 50 | Function | calls FNC | EQ | * | | <input checked="" type="checkbox"/> | | &_ObOut | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CL |
| | 51 | Function | generated call to FNC | EQ | * | | <input checked="" type="checkbox"/> | | &_ObIn | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CL |
| | 52 | Function | generated call to FNC | EQ | * | | <input type="checkbox"/> | | &_ObOut | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | <input checked="" type="checkbox"/> | CL |
| | 60 | Table | language SYS | EQ | DDS | AND | <input type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | |
| | 61 | Table | impl name NME | ST | WRK | | <input type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PF |
| | 70 | Table | language SYS | EQ | DDS | | <input type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | PF |
| | 80 | Function | language SYS | EQ | RPGIV | | <input type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | RF |
| | 100 | View | language SYS | EQ | DDS | | <input type="checkbox"/> | | | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | LF |



Subversion Integration

Subversion Integration

- Import objects from Subversion server
 - Integrate development environments under subversion control -> *web development*



Objects that have been committed within a specified period by this user



MatchPoint Mobile

cm FIRST
TECHNOLOGIES

MatchPoint i+ Overview

MatchPoint - Software Change Management

File Select Master Data Extras Billing View Window Help

Edit Change Requests

CR Number: 0 Priority: 0 Requester: Tester Application: Human Ressource 2

CR Description: Developer: HEC Christoph Heinrich Version: Subsystem: CR Type: Project: Customer:

Filter: Only cumulative Show content

View: Internal External All

| Application | Version | CR Number | CR Description | Priority | Depend | Obj | Note | Harmed End Date | CR Status | CR Type Description | Developer Name | CR current Description | Subs |
|-------------|---------|-----------|---|----------|--------|-----|------|-----------------|-----------------------------------|---------------------|----------------|-----------------------------|----------|
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| H2 | V300 | 2007227 | correction on initial cr status | 0 | | | | 11.05.2011 | approval pending | New Requirement | Heinrich | Development Hapisol II V3.0 | Address |
| H2 | V300 | 2007085 | CR Description | 0 | | | | 11.05.2011 | approval pending | New Requirement | Heinrich | Development Hapisol II V3.0 | Address |
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| H2 | V300 | 2007133 | Cum PTF 06050 | 0 | | | | 20.04.2011 | approval pending | Cumulative PTF | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007249 | Release R45 | 3 | | | | 17.04.2011 | ready for promotion | Release | Heinrich | Development Hapisol II V3.0 | |
| H2 | V300 | 2007195 | Change position of field in address field 233 | 2 | | | | 15.04.2011 | test | New Requirement | Heinrich | Test Hapisol II V3.0.0 | Contract |
| H2 | V300 | 2007162 | Change Sort of Fields on Panel et564 | 1 | | | | 04.04.2011 | test | New Requirement | Heinrich | Test Hapisol II V3.0.0 | Address |
| H2 | V300 | 2007038 | New Field on Department | 2 | | | | 25.03.2010 | ready for promotion | New Requirement | Heinrich | Development Hapisol II V3.0 | |

Edit Models

Model Name: Application: Model Type: Template Normal

Model Status: Extracted Version: User ID:

Filter: Only cumulative Show content

| Plex Version | Model Surrogate | Model Name | Model Description | User ID | Model File Name | Model Status | Model Type | Last Update Date | Last Update Ti |
|--------------|-----------------|---------------------|----------------------------|---------|--|--------------|------------|------------------|----------------|
| 2 | 301 | Tutorial Java | Tutorial Java | HEC | D:\MP\test\TutorialJava\TUTORIALJAVA.mdl | Extracted | Normal | 00.00.0000 | 00.00.00 |
| 2 | 299 | ModManTest Englisch | Test Model Manager English | HEC | D:\MatchPoint\test\ModMan\HEC\LocalModel\HECModel\estE.mdl | Extracted | Normal | 00.00.0000 | 00.00.00 |

Ready NUM

MatchPoint WebClient

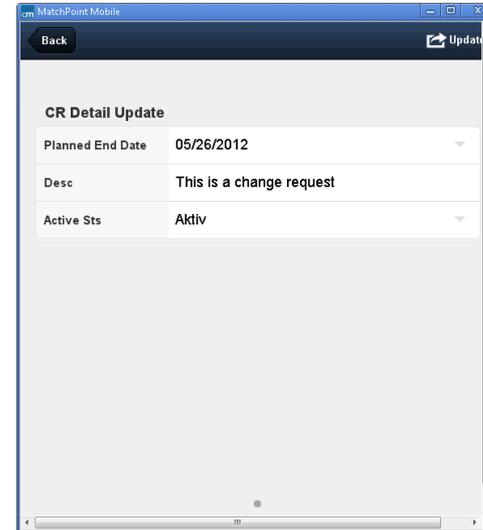
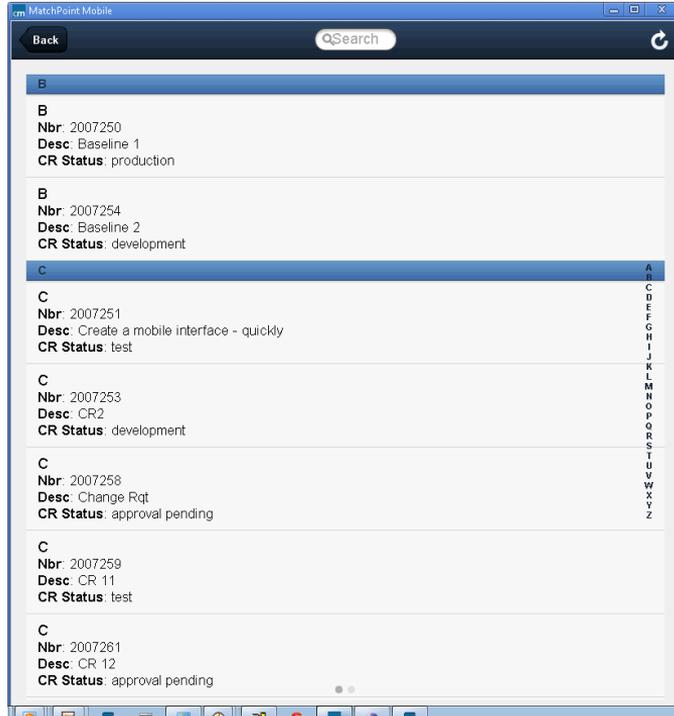
Change Request Information

The screenshot displays the MatchPoint WebClient interface within an Internet Explorer browser window. The URL is http://localhost:8080/Matchpoint55web/webclient?WSYD_SIGN=&WSYD_EVENT=&WSYD_SID=&WLSLNKREF=&WSCU. The interface features a search filter panel at the top with various dropdown menus and checkboxes for filtering Change Requests (CRs). Below the filter panel is a table listing CRs with columns for Application, Version, CR Number, CR Description, CR Status, and Release/Description.

| Application | Version | CR Number | CR Description | CR Status | Release / Description |
|-------------|---------|-----------|---------------------------------------|-----------------------------------|-------------------------------|
| H2 | V300 | 2007167 | New Fieldposition at Address äöü | test | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007164 | New Function for Contact | test | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007162 | Change Sort of Fields on Panel etr564 | test | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007156 | Neue Update-Funktion | ready for promotion to production | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007155 | Change position of field in address | test | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007133 | Cum PTF 06060 | approval pending | Development Hapisol II V3.0.0 |
| H2 | V300 | 2007092 | New Requirement on Person | ready for promotion | Development Hapisol II V3.0.0 |
| H2 | V300 | 2007085 | CR Description | approval pending | Development Hapisol II V3.0.0 |
| H2 | V300 | 2007038 | New Field on Department | ready for promotion | Development Hapisol II V3.0.0 |
| H2 | V300 | 2007035 | FTP-Transfer with consolidation | ready for promotion to production | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007033 | Language Dependent Objects | ready for promotion to production | Test Hapisol II V3.0.0 |
| H2 | V300 | 2007027 | Addressfield | production | Test Hapisol II V3.0.0 |

MatchPoint Mobile

Change Request Information



CA Plex

Presentation

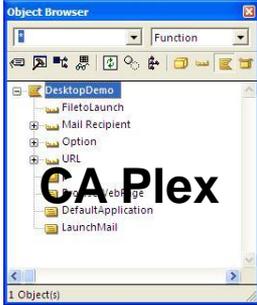
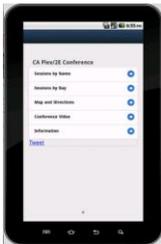
Web Services
ASP .NET
WPF clients



Java



MFC



Servers



IBM System i™
RPGIV



Databases



IBM DB2

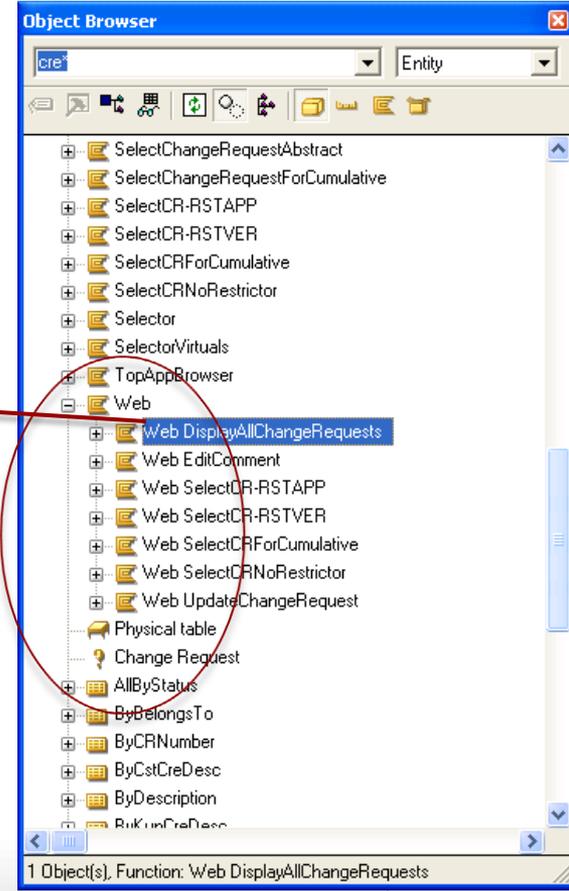
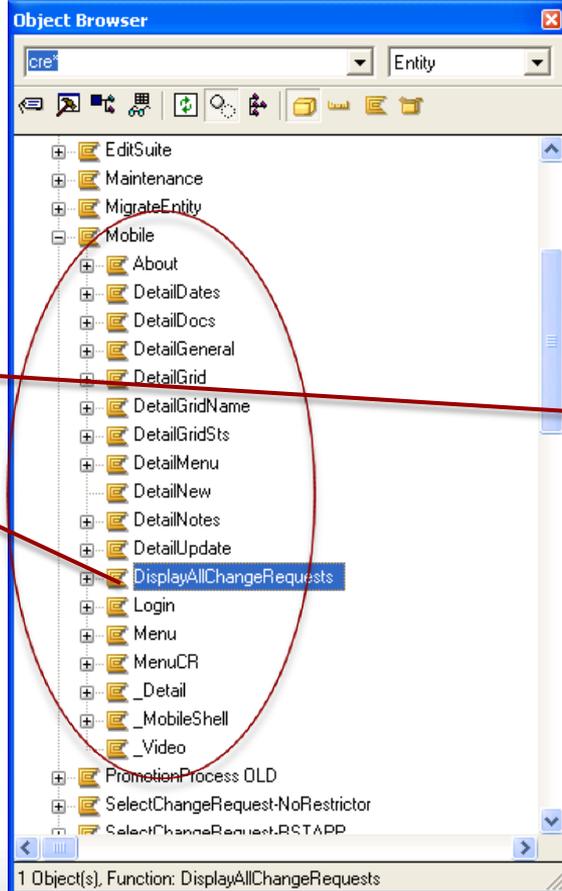
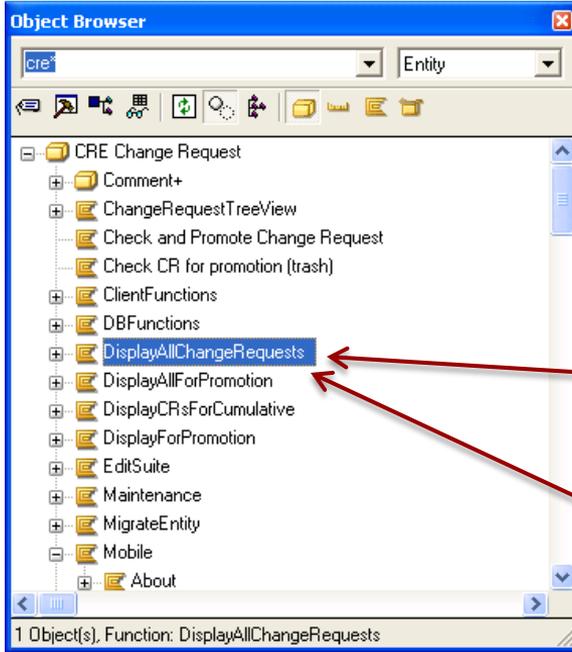


Microsoft
SQL Server



ORACLE

Simply by inheritance



Only change the presentation

Model Editor - Function: CRE Change Request.Mobile.DisplayAllChangeRequests

CRE Change Request.Mobile.DisplayAllChangeRequests is a FNC CRE Change Request.DisplayAllChangeReq

Function <All> Function

| | | |
|--|-------------------|---|
| CRE Change Request.Mobile.DisplayAllChangeRequests | is a | CRE Change Request.DisplayAllChangeRequests |
| | calls | CRE Change Request.Mobile._MobileShell |
| | generated call to | PRD Project.Fetch.ManageCombo |

Panel: CRE Change Request.Mobile.DisplayAllCh...

List

Back

| Nbr | Desc | CR Status |
|-----|------|-----------|
| | | |

Model Editor - Function: CRE Change Requ

CRE Change Request.Web.Web DisplayAllChar

Function

CRE Change Request.Web.Web DisplayAllChangeRequ

Panel: CRE Change Request.Web.Web DisplayAllChangeRequests.Panel

Panel

CR Number 0 Priority 0 Requester Application Filter

Status open Tester Version Reset

CR Description Developer Subsystem

Reference Web Designer CR Type

Environment Product Project

Object CR Group Customer

View Internal External All

| Application | Version | CR Number | CR Description | CR Status | Priority | CR current Description |
|-------------|---------|-----------|----------------|-----------|----------|--------------------------|
| | | | | | | |



Demo



Best Practice in Software Change Management

Project Types

- **New Development Projects**
 - New application
 - New Module for existing application
- **Maintenance**
 - Permanent maintenance on productive application
 - Fixes and new requirements
 - Temporary developments
 - Fixes and new requirements
 - No permanent team
- **Modernization**

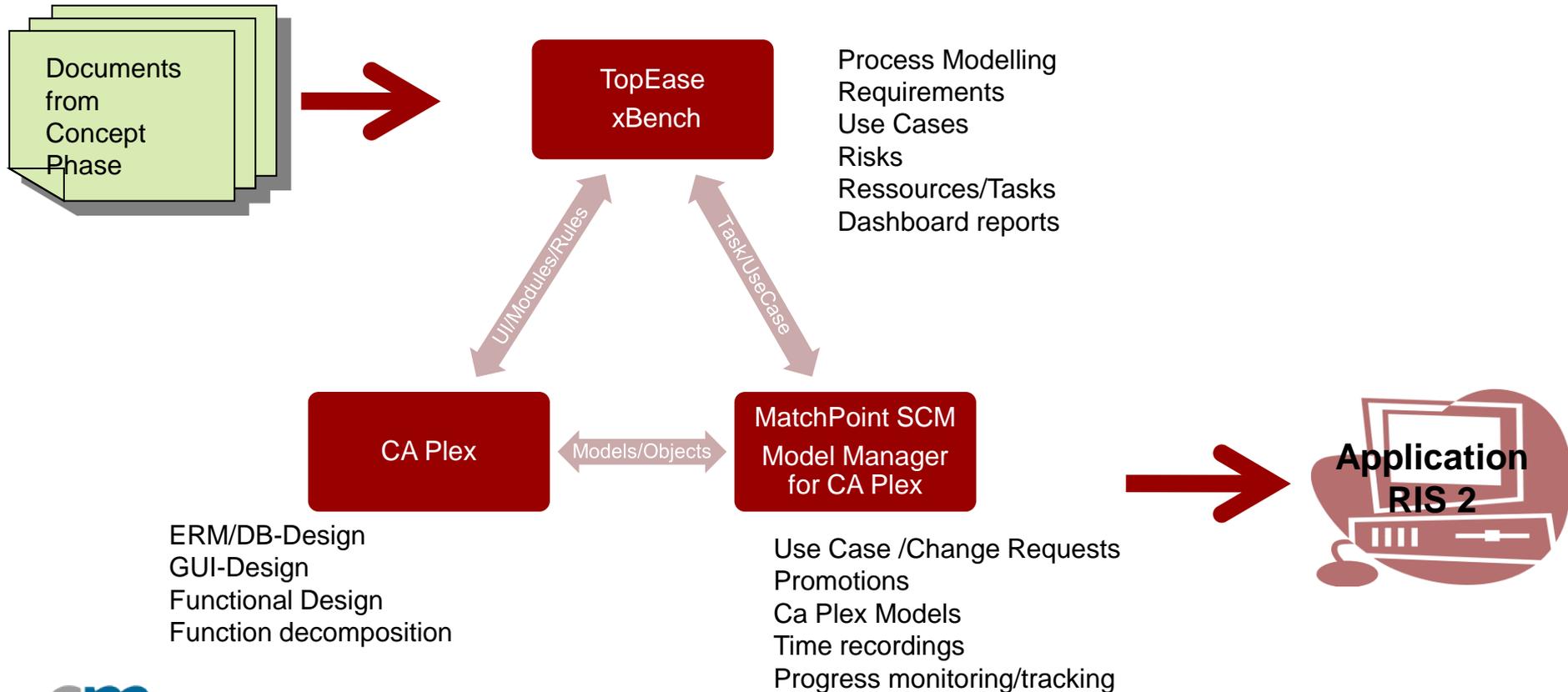
Project Example

- **Project RIS2**

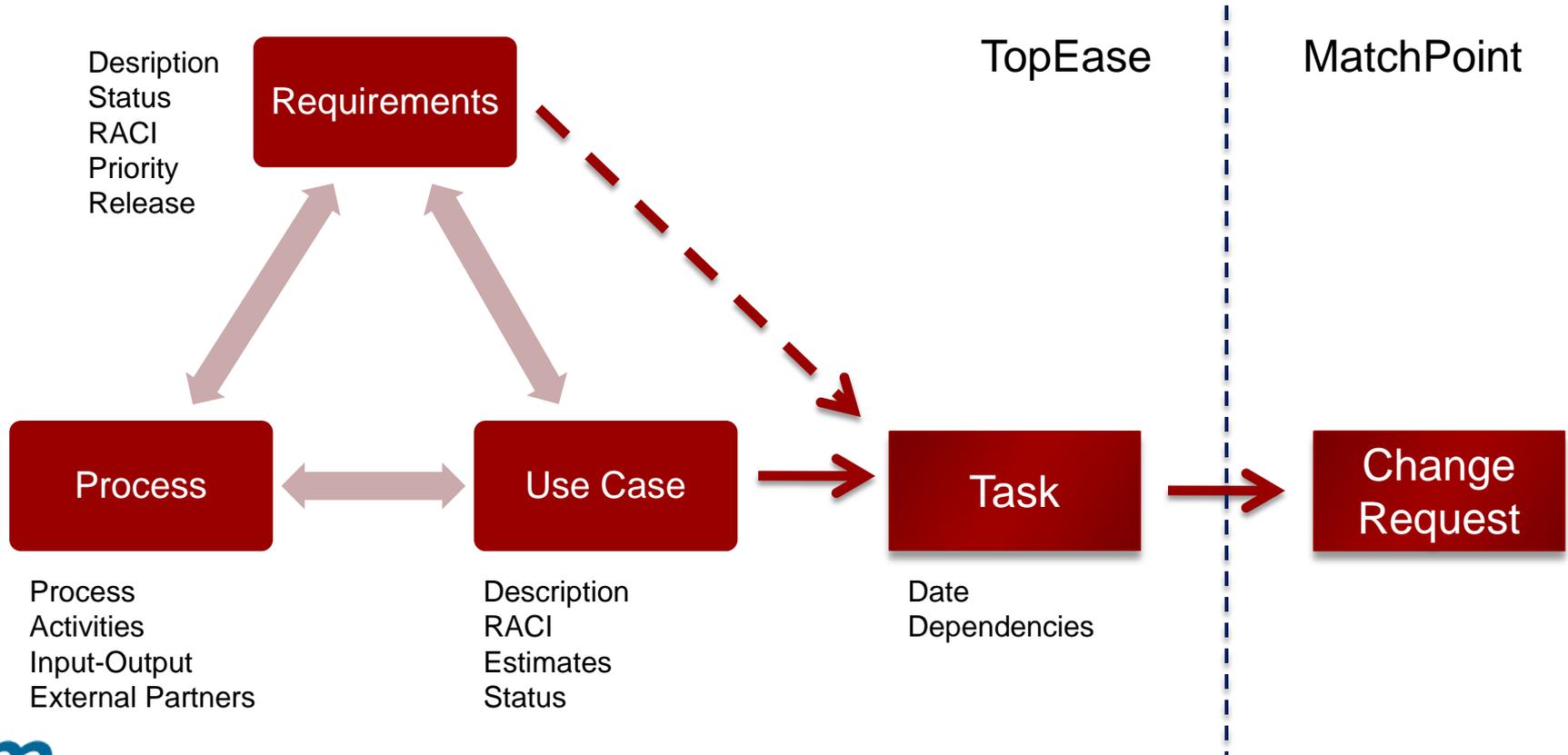
- Customer: Department of Justice and Inner Affairs, Zurich
- Application: RIS2 (Case Management System)
 - Criminal Investigation
 - Prison Management
 - Municipal Office Management
- Users: 1300 users in multiple locations
- Team: Project team with 10 Plex developers
- Duration: Total of 4 years
 - Multiple installation dates for different offices

- Challenges Project RIS2
 - Replacing existing application
 - Improved GUI
 - Better business process support
 - Maintainability
 - New Modules, New requirements
 - Requirements not specified in details
 - Short time frame
 - Parallel applications with real-time synchronized data

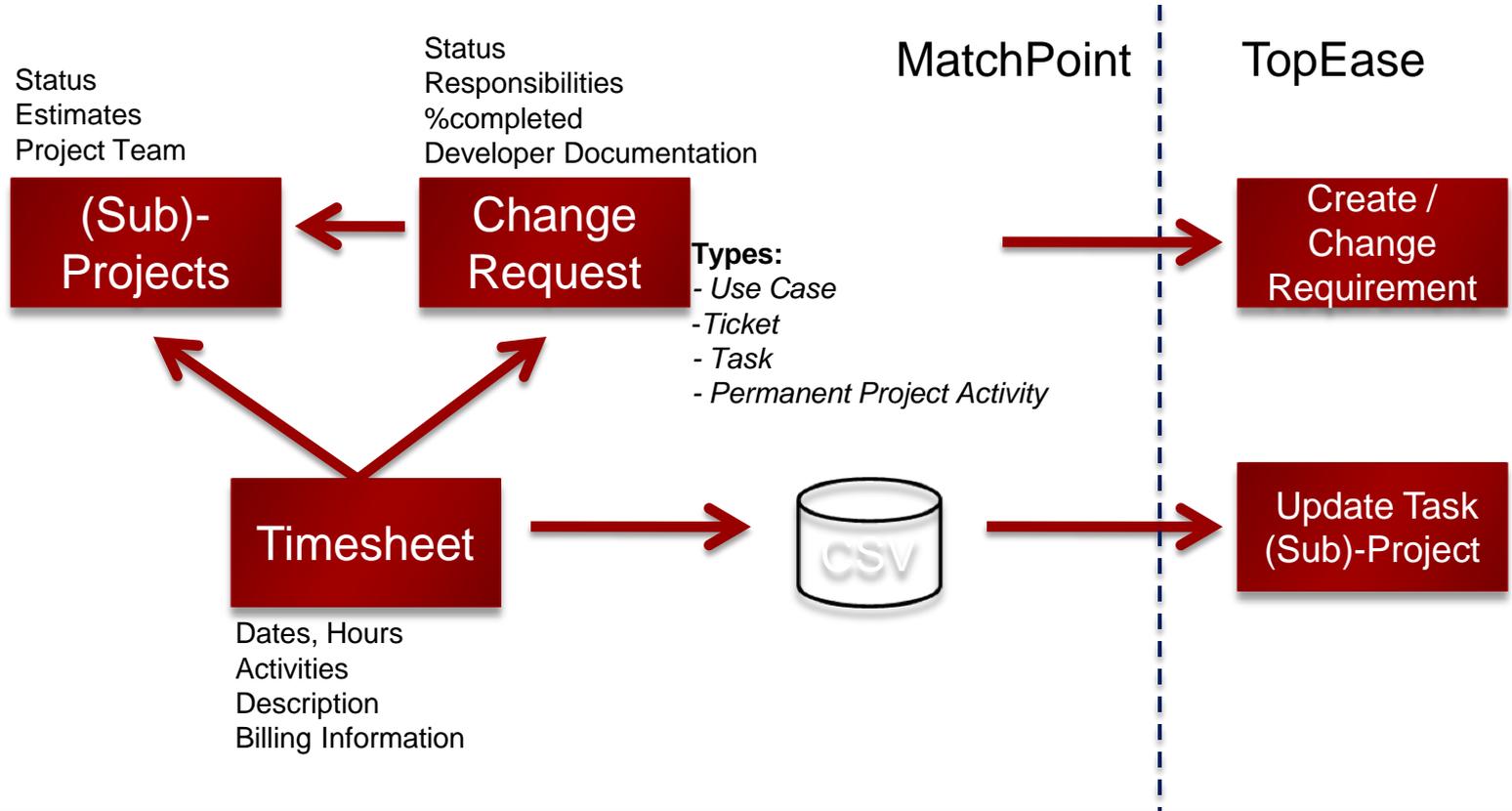
Methodology and Tooling



TopEase xBench



MatchPoint



Dashboard in TopEase xBench

Dashboards Homepage Language

Dashboard: Compliance

IKS

Filter

| Ziel | Kennzahl | Bereich | Trend |
|----------------------------|--|-----------|------------|
| Alle | Alle | Alle | Alle |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Rot | Fallend |
| Erfüllungsgrad | Dauernde Wirksamkeit der Kontrolltätigkeiten | Gelb | Stabil |
| Nachvollziehbarkeit | Dokumentation der Kontrollen in der Prozessdokumentation | Grün | Steigend |
| Wirksamkeit der Kontrollen | Gesetzliche und interne Vorschriften sind eingehalten | Ohne Wert | Kein Trend |

Row per page 20

Filter Zurücksetzen

| Statistik | Grün | Gelb | Rot | Ohne Wert | Summe |
|-------------|------|------|-----|-----------|-------|
| Ungefiltert | 158 | 55 | 4 | 0 | 217 |

1 / 11

| Ziel | Kennzahl | Instand | Bereich | Wert | Einheit | Periode | Trend | Rep. |
|-----------|--|---|---------|------|---------|----------|-------|------|
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Überprüfung, ob alle Konten, welche für den Abschluss benötigt werden, bei der Erstellung des finanziellen Berichts berücksichtigt wurden | Grün | 4 | | Feb 2009 | ↑ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Das Anlagevermögen inkl. der Abschreibungen muss periodisch mit den Budgetzahlen verglichen werden | Grün | 4 | | Feb 2009 | ↑ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Das Anlegen und das Ändern von Konten im Hauptbuch darf nur restriktiv (Zugriff) einzelnen Mitarbeitern ermöglicht werden | Grün | 5 | | Feb 2009 | ↑ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Das Anlegen und das Ändern von Konten im Hauptbuch ist nur nach Genehmigung erlaubt | Gelb | 3 | | Feb 2009 | ↓ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Definition von Pflichtfeldern bei der Erfassung des Anlagevermögens | Gelb | 3 | | Feb 2009 | ↑ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Die Änderung eines Bankkontos muss im System durch eine zweite Person genehmigt werden | Grün | 4 | | Dec 2008 | ↑ | |
| Effizienz | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | Die Debitorenzahlungen müssen nach Einlesen des Bank DTA's im System abgeglichen werden | Grün | 4 | | Feb 2009 | ↑ | |
| Effizienz | Überwachung der | Die Haupt- und Nebenbücher müssen regelmäßig abgestimmt werden | Gelb | 3 | | Feb 2009 | ↓ | |

Report

Das Anlagevermögen inkl. der Abschreibungen muss periodisch mit den Budgetzahlen verglichen werden Überwachung der Kontrolltätigkeiten durch den Vorgesetzten

| | | | |
|-----------------------|--|---------------|----------|
| Name | Überwachung der Kontrolltätigkeiten durch den Vorgesetzten | | |
| Aktueller Wert (%) | 4 | Zielwert | |
| Einheit | | Effektivdatum | Feb 2009 |
| Datumsformat | Monatlich | Zweck | |
| Letzte Änderungsdatum | Mar 2009 | | |

Historie Diagramm

Schliessen

Summarization

TopEase

Process Modelling
Requirement Management
Planing
Risk-Management
Project Status Reports

MatchPoint

Tracking/Monitoring
Time Reporting
Deployment

CA Plex

Database Modelling
Functionality Development



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Thank You for your Attention

Best Practice for Software Change
Management

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