

# Siebel 8 Upgrade

DOAG 2010



## Agenda

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### **1 Siebel 8 Upgrade, facts and fiction**

2 Planning ahead and phased approach – make it one step at a time

3 Technical and functional challenge – make it run

4 Performance and zero downtime challenge – make it run fast

5 Wrap up

## Siebel 8 upgrade, facts and fiction

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- Facts

- Siebel 8.1 offers many new functions – „Innovation on 8.1“ (OOW 2010)
- Potential to reduce customization
- Oracle support for Siebel 7.8 is limited

- Fiction

- „One button“ upgrade
- Many scripts make it impossible to upgrade
- Using recommended customizing only guarantees a smooth upgrade process

## Agenda

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1 Siebel 8 Upgrade, facts and fiction – should we make it?

**2 Planning ahead and phased approach – make it one step at a time**

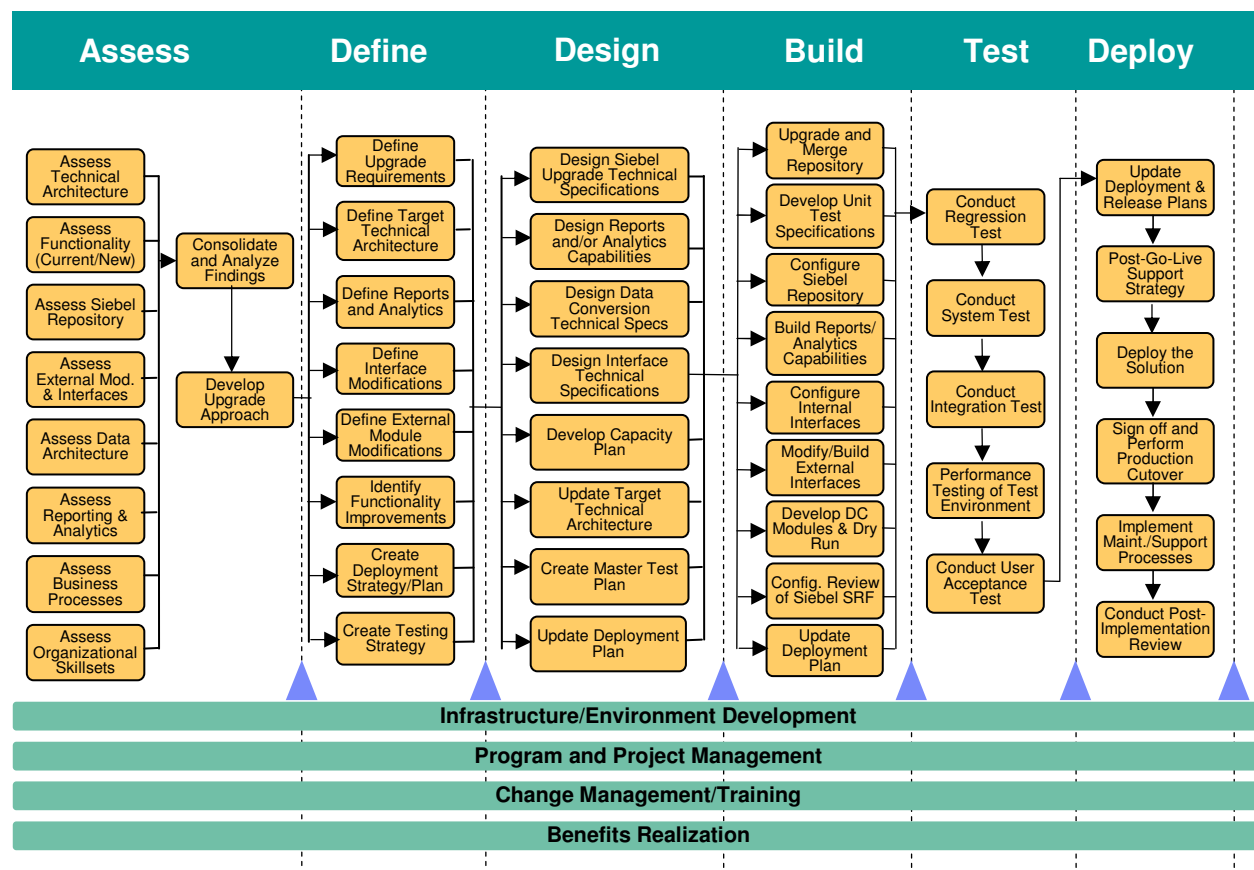
3 Technical and functional challenge – make it run

4 Performance and zero downtime challenge – make it run fast

5 Wrap up – just do it!

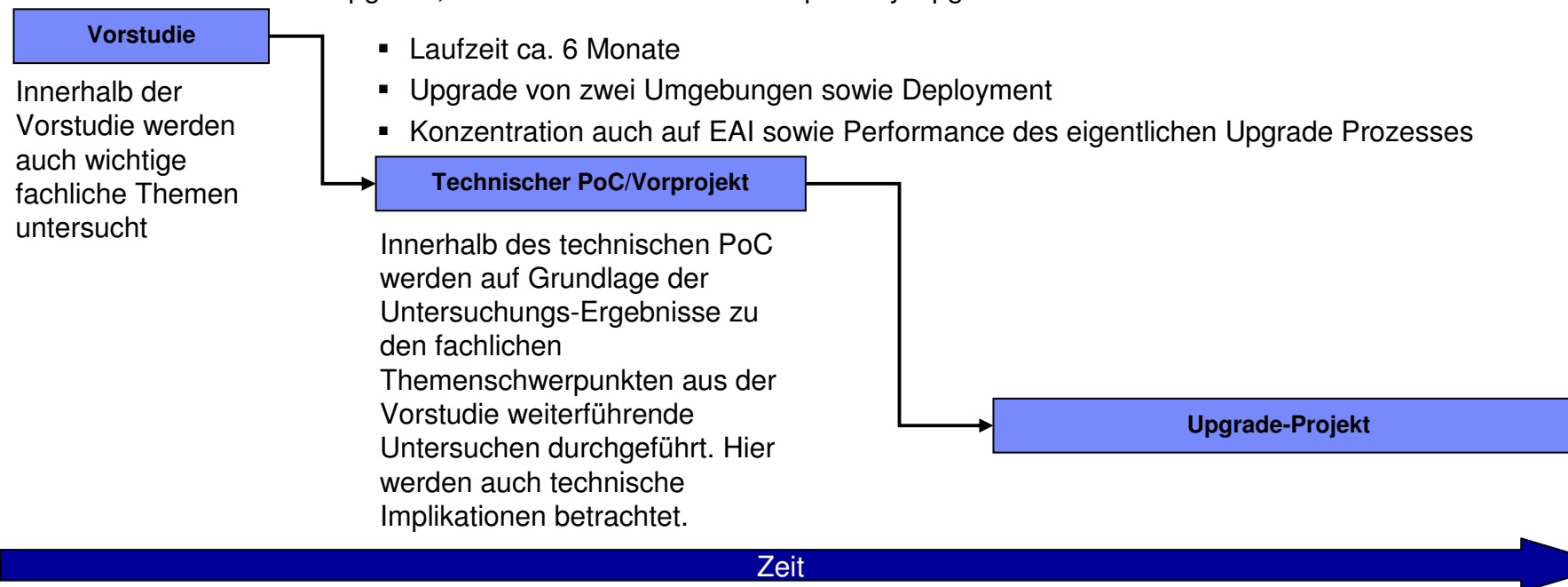
# The IBM Siebel upgrade method is based upon our success at achieving rapid results for our clients

- Designed & Built **specifically** for Siebel upgrades
- Incorporates Siebel-specific tools, techniques and best practices to **improve project performance** (speed, costing, estimating) and to **reduce risk**
- Standard work-products and deliverable samples for **flexibility, ease of use, continuity** across projects
- Provides a **roadmap** for work to be done and allows **customization** flexibility
- Provides a common framework and repository for **knowledge harvesting**
- Addresses the six key focus areas for a **successful Siebel upgrade**



## Dreistufiger Ansatz zur Herangehensweise

- Dreistufiger Ansatz:
  - 1. Vorstudie inkl. Test-Upgrade
  - 2. Technischer Proof of Concept / Vorprojekt
  - 3. Upgrade-Projekt
  
- Dauer: ca. 6 Wochen
- Assessment und Test-Upgrade, Konzentration auf Siebel Repository Upgrade



## Detailed Report of Assessment Findings

- The final result of the Siebel Upgrade Assessment will be a go-forward customer specific upgrade assessment that will assist in a successful upgrade to Siebel 8. The deliverable will specifically analyze and answer the key questions and issues that are paramount to successfully beginning the upgrade process, allowing the customer to jump-start the following phases.

Addresses questions around **time, resources, cost and the overall business case**

Addresses the questions (and recommendations) around **scripting, the data concepts and model, the need to upgrade hardware, and the ability to take advantage of new functionality**

Addresses the need for **training and skills required in the organization**

### **Deliverable – Sample Table of Contents**

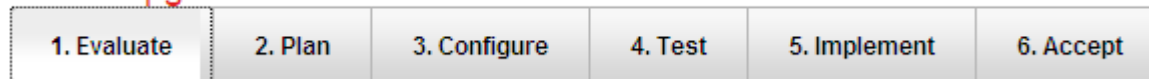
- |   |  |
|---|--|
| ✓ | <input type="checkbox"/> Overview                    |
| ✓ | <input type="checkbox"/> Approach                    |
| ✓ | <input type="checkbox"/> Assessment Results Summary  |
| ✓ | <input type="checkbox"/> Estimate Summary            |
| ✓ | • Resources  |
| ✓ | • Work plan  |
| ✓ | <input type="checkbox"/> Detailed Analysis           |
| ✓ | • Siebel Repository                                  |
| ✓ | • Data Architecture                                  |
| ✓ | • Technical Architecture                             |
| ✓ | • External Modules                                   |
| ✓ | • Business Processes                                 |
| ✓ | • Skills   |
| ✓ | <input type="checkbox"/> Risk and Mitigation Tactics |

## Siebel Upgrade Advisor

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- In My Oracle Support, introduced in **July 2010** – Document ID 259.1
- What is an Upgrade Advisor?
  - Upgrade advisors are specially crafted **dynamic documents** that are intended to guide you through an upgrade lifecycle using **step by step instructions**

Siebel upgrade from 7.8.x or 8.0.x to 8.1.1.x > Evaluate



The IBM Siebel Upgrade Method



- It has the same goal and similar structure to the IBM Siebel Upgrade Method which has been around since 2005



# Siebel Upgrade Advisor - example

Siebel upgrade from 7.8.x or 8.0.x to 8.1.1.x [ID 259.1]

Modified 13-OCT-2010 Type REFERENCE Status PUBLISHED

## Siebel upgrade from 7.8.x or 8.0.x to 8.1.1.x > Test

1. Evaluate	2. Plan	3. Configure	4. Test	5. Implement	6. Accept
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Phase Overview

Step by Step Guide

- Perform basic database preparations for the Siebel Upgrade on TEST environment
- Upgrade Infrastructure - servers, third-party software, RDBMS
- Tuning the Siebel Upgrade Files**
- User Guide - Training
- Release Notes/ReadMe files documenting any errata
- Perform system tests
- List Milestone Deliverables

◀ Prev   Next ▶

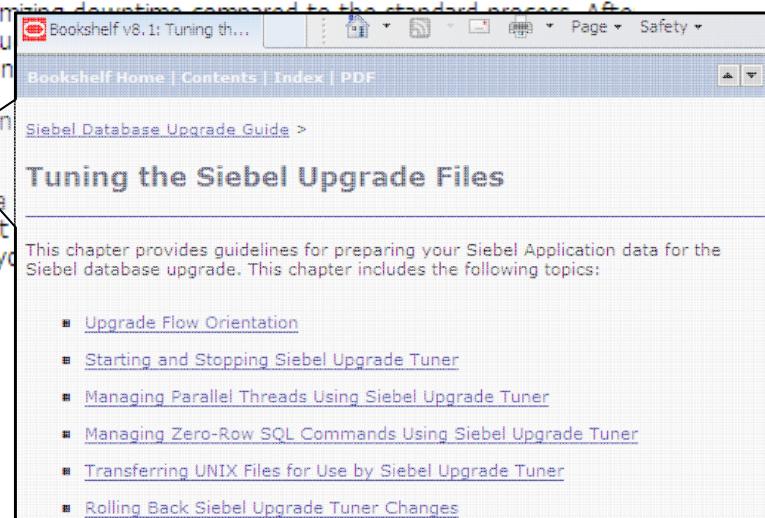
## Tuning the Siebel Upgrade Files

### Optimizing the Siebel upprep + upgphys process execution

If the duration of the Siebel CRM upgrade downtime window is a concern for the Siebel product, you should optimize the upgrade process with the help of the tools and resources discussed under the present section. Optimizing the upgrade process is an important task as this may help in minimizing downtime compared to the standard process. After you have completed the upgrade, you should plan new Siebel test- production environment and investigate about any new issues introduced and investigate about any new issues.

Such tasks are based (but not only) on the [Tuning the Siebel Upgrade Files](#).

After you upgraded for the first time, you should also be shown. Based on this analysis you should address them.



# Accelerator – Repositool (Siebel Repository Analysis)

**IBM has a Siebel Repository Analysis toolkit. These outputs indicate risk areas and effort.**

### What are the benefits?

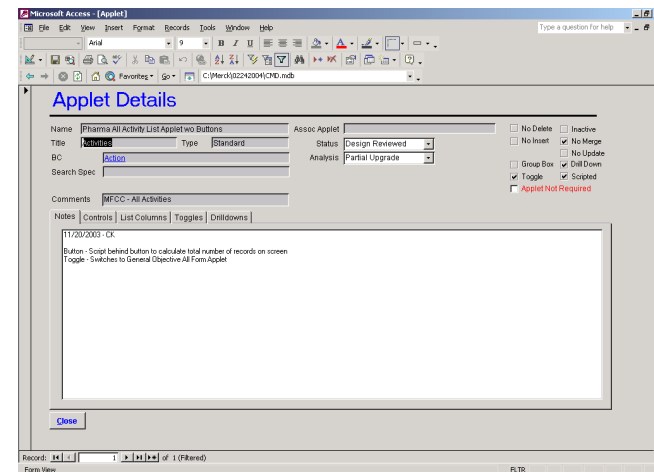
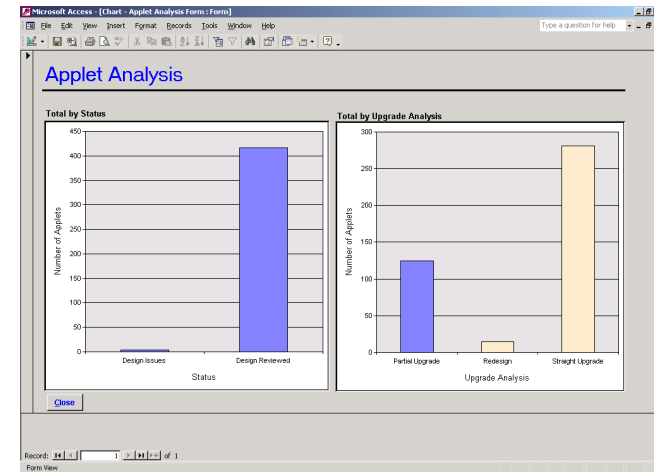
- Identification of Siebel repository objects used by the customer's implementation
- Provides a tool-based review of configuration and scripting of the Siebel Repository.
  - Identifies of potential configuration errors
  - It can be used to analyze possible impacts for Siebel upgrades
  - DAVID improves the development quality and minimizes possible Siebel review findings and application issues.
  - Impact analysis of Siebel modifications

### How do they work?

- Reads Siebel Repository Tables and does NOT update Siebel data
- They can be used against Siebel Server Repositories as well as against Siebel Local Databases for 7.0, 7.5, 7.7, 7.8, 8.0 & 8.1

### What Reports are Generated?

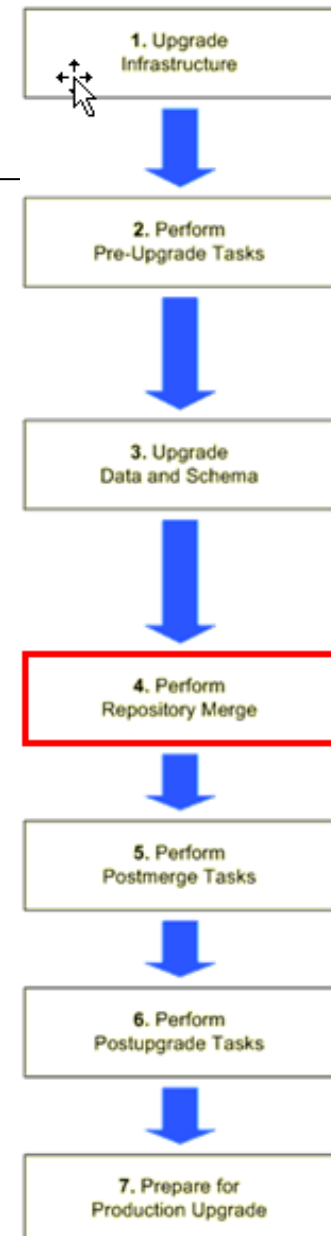
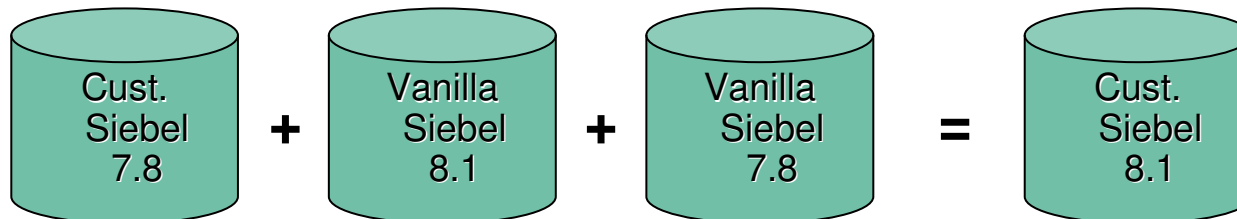
- Output are readable in MS Excel and MS Word
- Top 20 issues found in number of occurrences, with a finding, description, consequence, and recommendation for each
- 14 specialized reports that focus on identifying configuration errors or performance concerns within the customer's Siebel objects
- 80+ findings can be analyzed, most of them are part of "Siebel Config and Scripting Reviews"



## Siebel Repository Merge Review

- Der Siebel Repository Merge ist ein Hauptbestandteil des Siebel Upgrades
- Alle Siebel Objekte im aktuellen Repository werden mit den Standardobjekten der neuen Siebel Version 8.1 zusammengeführt

**BookShelf:** *“The repository merge process preserves prior customizations by comparing Prior Customer Repository (the repository from your previous release), the New Siebel Repository (the unaltered repository from the current Siebel release), Prior Siebel Repository (unaltered Siebel repository from the previous release) and merges the content into a fourth repository called the New Customer Repository”*



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## Technical challenges

- The Repository merge touches almost every spot of the application
  - 150.000 entries in S\_MERGE\_LOG\_OBJ are not uncommon - which are relevant?
- eScript syntax
  - Stricter rules enforced – scripts which may run fine in 7.8 will not be compileable under 8.1
- Web Templates – especially Product configurator
  - Considerable rework needed, structure of .css files partially changed
- Customized user properties may be overwritten
  - Identification by query, systematic correction before upgrade
- Change in standard objects used by customization
  - Audit Trail Applet classes changed



## Functional challenges

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- Actuate replaced by BI publisher
  - Manual effort required to rebuild reports
- Standard Pricing enhanced
  - Customizing in this area requires careful testing and modifications
- Show more/less button behavior changed
  - Now the user session remembers last setting – automated test scripts need modification



## Wichtige Lessons Learned im Vorprojekt

Thema	Lösung
Mit Softwarefehlern ist zu rechnen	Enge Zusammenarbeit mit Oracle Expert Services vor Ort von Anfang an, Eskalation zu „critical account“ Status wenn der Projektfortschritt gefährdet ist
Verändertes Verhalten des Siebel Standard erfordert Anpassungen des customizing	Da es auf dem hier benötigten Detail Level keine Siebel Dokumentation gibt, muss das Verhalten im Einzelfall analysiert und getestet werden
Änderungen in technischen Details erzeugen Fehler im customizing	Analyse der Ergebnisse des Upgrade-Schritts „Repository Merge“, erkannte systematische Änderungen wurden entsprechend behoben bzw. für den Hauptprojekt-Upgrade vorgemerkt (Re-Key)
Analysezeiten bei Fehlern sind wesentlich länger als im normalen Releaszyklus, die Fehlerbilder sind komplexer	Durch bereits bekannte Fehlerbilder wird die Analyse im Hauptprojekt beschleunigt
Fehler mit gleichem Fehlerbild treten an mehreren Stellen in der Applikation unabhängig voneinander auf	Erkannte systematische Fehlerbilder werden mit Repository-Tools analysiert und systematisch behoben, somit wird die Behebung dieser Fehler beschleunigt
Abhängigkeiten zu anderen Systemen sind in erheblichem Umfang vorhanden, z.B Produktdaten und Produktkonfigurator-Oberfläche	Zusammenarbeit mit Produktkonfigurator-Team wurde bereits im S8 Upgrade Vorprojekt aufgenommen und Abhängigkeiten definiert

## Allow more time for FixPack and QuickFixes

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- Between first Assessment and end of Pre-Project at a big customer, we experienced
  - Two FixPacks with dozens of bug fixes and enhancements
    - Each led to days of development outage – local db needs to be rebuilt
  - Three QuickFixes
    - Waiting and test time took weeks
  - If your prio with Oracle support is not high enough, because it's „just a pre-project“, this could delay your project



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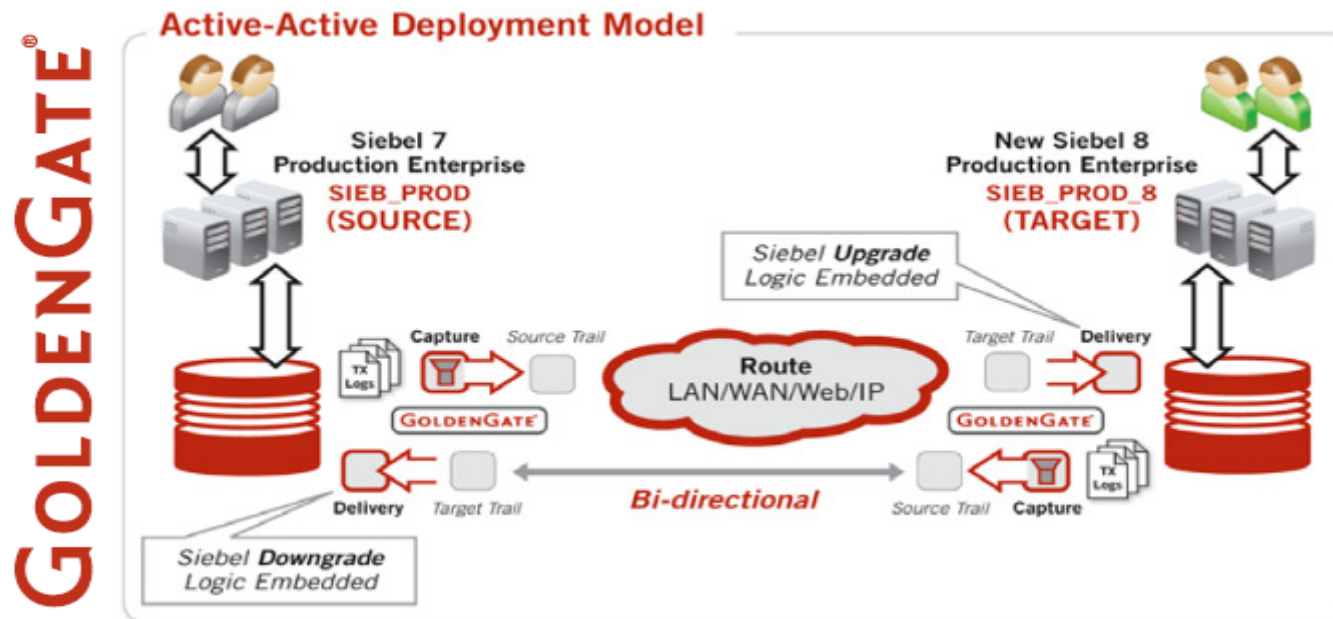
5 Wrap up

## Tuning the upgrade process

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- Table modifications may take long time on huge databases
- Oracle provides the Siebel upgrade tuner
- This is basically a log file parser
  
- It runs only under Windows and requires a Siebel Server installation under Windows
  
- The results need to be interpreted and analyzed
  
- It requires repeated upgrade runs
  
- Make sure an experienced DBA is on board

## Oracle GoldenGate for zero downtime upgrades



- Key feature: Changed data moves freely from the prior Siebel version to the new Siebel version and vice-versa in a bi-directional manner.
- Users would have the option to login to either of the two environments as needed without any data loss.
- Conflict detection and resolution used to avoid any referential integrity issues

## There is no free ride... You need to work to make it work!

- Transformation rules need to be analyzed and built
- Network issues may hamper performance
- A Successful cut over requires more than DB synchronization
  - We call it „choreography“
- Test, test, test...



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## The upgrade path is not an easy ride...

- careful planning is essential
- take baby steps
- make friends with hardware provider
  - several temporary environments needed
- allow time for solving issues
- expect the unexpected



.. But the potential rewards are worth it!

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- Technical basis for new standard functionality
- Many insights into the application make future enhancements easier
- There is no better way – except learning to play golf – to become humble and modest

## IBM auf der DOAG/ Kontakt

Bitte besuchen Sie unseren IBM-Demopunkt für Fragen  
in Verbindung mit IBM Services,  
Hardware und Software

**Ebene 2, Stand 210**



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# Backup



# Report of Recommended Fixes

## IBM Report of Recommended Fixes

# Ref	First Detected	Last Checked	Hidden	Rec No	Recommendation Name	Severity	Complexity	Priority
27947	02/09/2009 10:54:24 AM	2/9/2009		29	CRITICAL: Using of COM object within Server Script	01- High	03 - Low	01 - High
27954	02/09/2009 10:54:24 AM	2/9/2009	6GS-JUL	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27955	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQIR	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27956	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQJQ	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27957	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQFY	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27958	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GOKB	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27959	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQIY	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27960	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQJU	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27961	02/09/2009 10:54:24 AM	2/9/2009	6GS-JDA	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27962	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQLE	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27963	02/09/2009 10:54:24 AM	2/9/2009	6GS-IL	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27964	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQHO	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27965	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQLE	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27966	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQM7	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27967	02/09/2009 10:54:24 AM	2/9/2009	6GS-DKY	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27968	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQIO	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27969	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQJ7	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27970	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQII	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27948	02/09/2009 10:54:24 AM	2/9/2009	6IG-IU3	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27971	02/09/2009 10:54:24 AM	2/9/2009	6IG-JD9	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27972	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQL6	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27973	02/09/2009 10:54:24 AM	2/9/2009	6HN-6N4	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27974	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- GQLZ	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
27975	02/09/2009 10:54:24 AM	2/9/2009	6HN-6N3	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
28073	02/09/2009 10:54:24 AM	2/9/2009	6GS-72B	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High
28074	02/09/2009 10:54:24 AM	2/9/2009	1-3ZTV- 1M4JV	31	Using incorrect cursor mode for ExecuteQuery	01- High	03 - Low	01 - High

Sample Deliverable

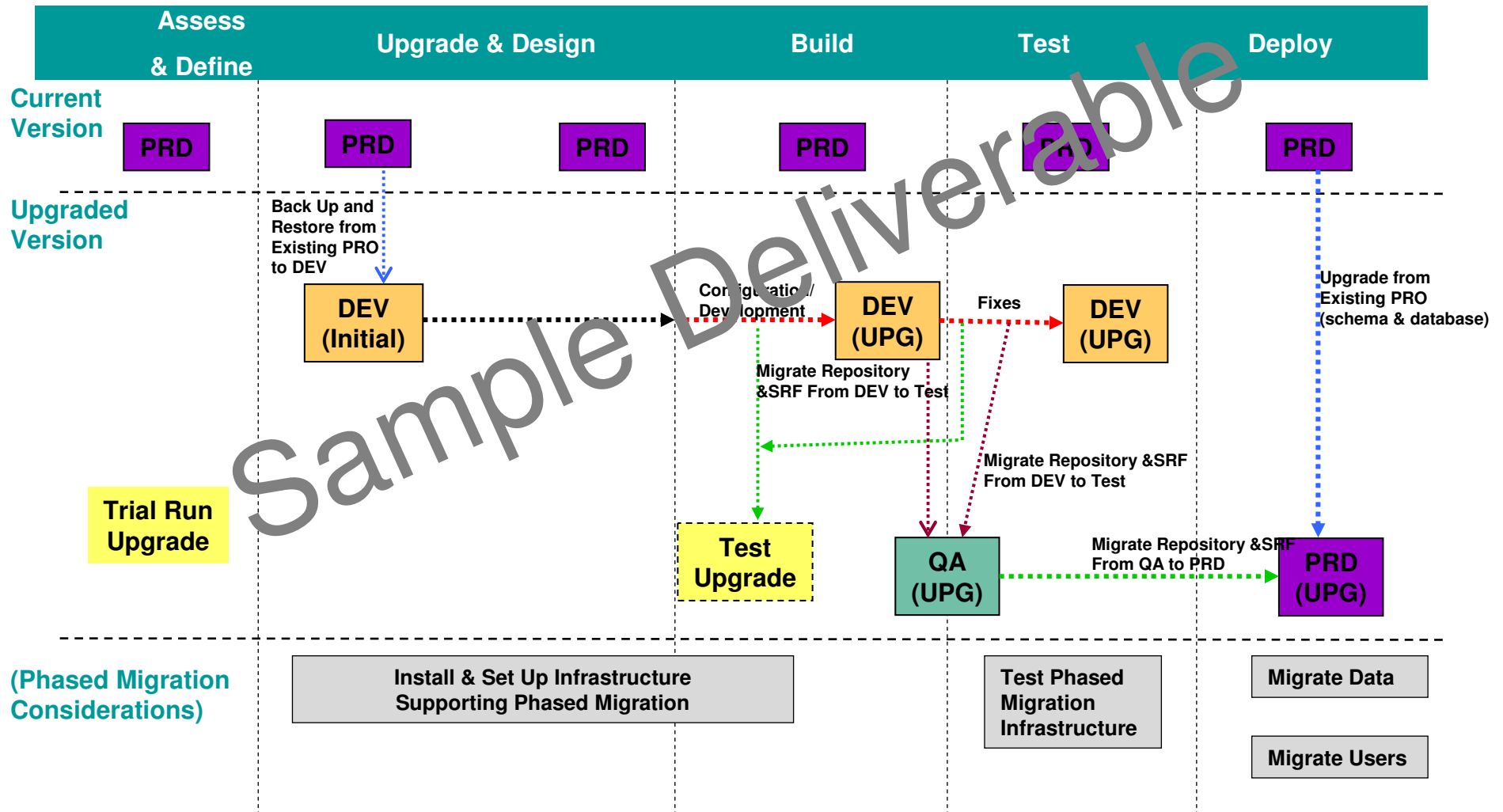
## Findings and Recommendations Report

In addition to identifying the scope of objects for the upgrade, our repository analysis revealed a number of additional items that should be addressed.

The following table outlines our key findings and recommendations:

#	Findings	Description	Consequence	Recommendations
1	<b>400+</b> Locations within the Repository contain Script	Scripts of varying size and complexity exist in many places within the Repository.	The application is heavily customized, resulting in complexity as it pertains to enhancements, maintenance, upgrades, and total cost of ownership.	Leverage native Siebel functionality where ever possible to reduce script significantly. For example, In Expense and NN - Payment Req BCs, field level validation can be used instead of BusComp_SetFieldValue Scripting.
2	<b>1</b> Force Active set on the Custom Business Component level.	The "Force Active" property is set on the new business components. This means that all fields are always retrieved when the business component is queried.	This may lead to performance issues, e.g. if the business components contains a lot of joined or multi value fields.	Set the "Force Active" user property to FALSE and set it instead on all fields to TRUE you always want to retrieve.
3	<b>50</b> New Inner Joins	Many new inner joins have been created and defined in the Repository.	Creating an inner join may prevent data from being displayed correctly as the joined record must exist in order to display the parent record. Always check carefully, if a join needs to be an inner or an outer join.	Carefully review, if the joins need to be an inner join.

# Siebel Upgrade Method: Environment Approach



## Below is a list of some of the 80+ metrics available from our Repository Analysis

- Approved View List
- Picklist Summary
- Picklist Values by Business component
- Alpha Picklist Values
- Buscomponent Fields
- MVLink without Primary
- Invalid Visibility applet
- UI Label Consistency
- Applet Searchspec Index Analysis
- Buscomp Searchspec Index Analysis
- Custom index creation– a listing custom indexes
- List of custom objects without Upgrade Ancestor Property flag.
- List of COM object usage within Server Script
- Heavy use of Immediate Post Changes Property on business component fields.
- Usage of standard naming conventions report
- Hardcoded paths with in the scripts
- Faulty assigned Views to Responsibilities
- Using incorrect cursor mode for ExecuteQuery
- Incorrect Join Specification To 1:1 Extension Table

Form applets are the most time consuming to upgrade. Because the UI will be drastically different than the current application, you will have to make a significant effort to review the new user interface layout with users during design, and obtain approval during user acceptance testing. The estimation of the level of configuration for these objects is captured in the table below:

Object	Total	Vanilla	Modified
All Applets	615	550	65
Form Applets	55	42	13
Views	237	237	0

### Business Object Layer

With regard to the Business Object layer where data is mapped to the User Interface, Siebel has provided an upgrade path that converts the business logic and relationships to the new Siebel 7 data model. This conversion requires the upgrade process to move some foreign keys between tables and re-map relationships to reflect the new schema. The 11 extension columns identified in the Repository reports in Appendix D created on the Employee will not upgrade automatically, and these columns will need to be re-created and as a result will require re-mapping of the attributes to their parent business objects. The table below categorizes the modified Business Objects based on these modifications.

Object	Total	Vanilla	Modified
Business Objects	10	0	10
Business Components	194	140	54

### Scripting

As opposed to the user interface layer and the business object layer scripting transcends across multiple levels of a Siebel Configuration. The Siebel 7 architecture recognizes a new approach to scripting that requires certain scripts to be re-written or migrated to another script style. Scripting resides in three primary areas: Application Level, Business Component Level, and Applet Level. Business Components require a review for UI references for obsolete methods that are not supported in Siebel 7, but should generally migrate using the upgrade wizards. Applets that have been scripted will require their code to be migrated from Applet script to Browser script. The number of applets with script increases the complexity of the migration since each script has to be migrated and evaluated for unsupported methods. In some cases code will need to be re-written or converted to alternative scripting methods such as Business Services or JavaScript. Application level script can be migrated to similar objects in Siebel 7 but require review as well for desktop integration and unsupported methods. In some cases Application level script may need to be re-written to conform to the Siebel 7 architecture. Captured below are the approximate levels of script migration based upon object.

## Use of New Date Objects in eScript

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- Different output is returned by **new date** if a NaN value is passed in parameter.

E.g.

In 7.8 *new Date (Year, Month, Date)* returns “Invalid Date” if in the values passed any of the Year, Month or Date is NaN (Not a Number). Same Code in 8.0 returns a default date of “*Thu Nov 30 1899 00:00:00*”. This could cause exceptions in subsequent code.

*Solution:*

Bypass call to new Date function in case null/NaN value is being passed to it