

Change Request Manager in Sasol: *Using SAP Solution Manager as Compliance Enabler*

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Sasol Background

Background on SPI CHARM Implementation

Implementing Change Request Manager

Other SSM functionality used in compliance processes

Lessons learnt and value-add

Questions

The Sasol Business . . .

Sasol Limited is an innovative and competitive global energy company.

- **World-leading technology** for the commercial production of synthetic fuels and chemicals.
- A workforce of 30 000 in **exploration, mining, science, technology R&D and business development.**
- Listed on the **Johannesburg Securities Exchange** (JSE), symbol SOL and the **New York Stock Exchange** (NYSE), symbol SSL.
- Almost **50 entities** in The **Americas, Australasia, Europe and Africa**
- A code of **shared values** that mould Sasol into one powerful global brand
- **Total Turnover** FY 2007: **R 98 billion~ €9 bn**



SASOL
reaching new frontiers



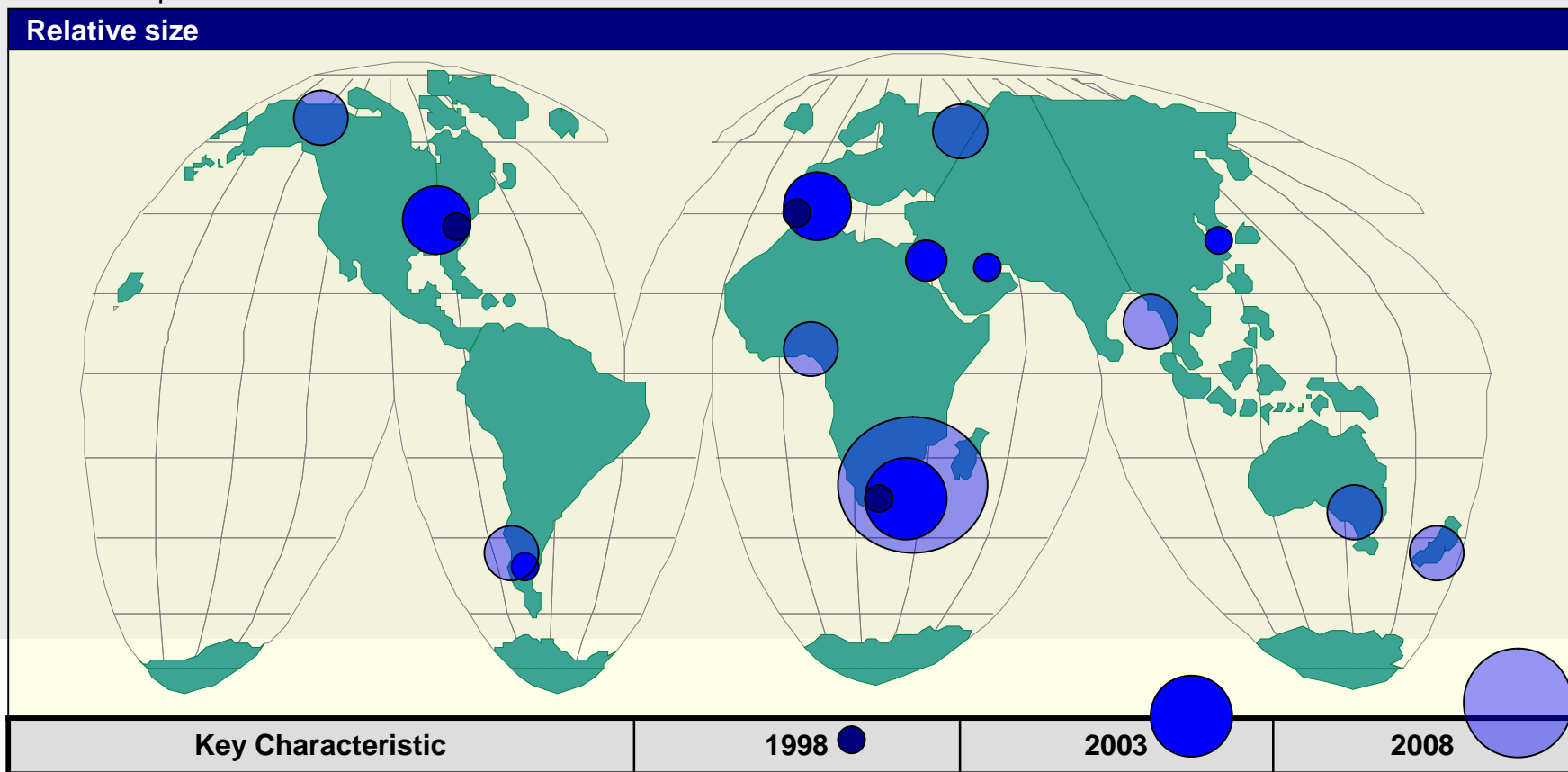
Sasol's Diversification strategy has pushed Sasol into new Geographies and Businesses ...

“ ... we anticipate meeting our growth objectives of increasing US Dollar earnings by 10% a year on a five-year moving average basis.”

Annual Report 2003, p53

Growth focus in 3 areas through JVs

- Commercialise and expand our gas-to-liquids (GTL) conversion technology
- Exploit upstream hydrocarbon opportunities
- Grow our chemicals portfolio



Solution Manager in Sasol

- All Sasol SAP systems in South Africa linked to SAP Solution Manager
- Live in SAP Solution Manager
 - Central Monitoring
 - Service Level Reporting
 - Change Request Manager
 - Implementation component
 - OSS connection to SAP
 - Testing
 - Maintenance Optimizer
- Research and Development in SAP Solution Manager
 - Business Process Management
 - Diagnostics



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Background on SPI CHARM Implementation

- Sasol Petroleum International (SPI) went live with Phase II of their SAP implementation in September 2006
- SAP Change Request Manager was implemented to manage all changes and corrections in the SPI 3 tier (DEV, QA and PROD) SAP landscape
- Approval steps were incorporated the SAP Change Manager system to verify and authorize any change or correction that is transported from DEV via QA to Production
- Went live with Change Request Manager in March 2007 – 1st in Sasol!



Why Change Request Manager

Change Request Manager is a SAP tool to support the client to efficiently manage and comply to the following:

- **ITIL Requirements**

The ITIL books are best practice guidelines for service management, with the guidelines describing what rather than how. Service management is tailored to the size, the internal culture and, above all, the requirements of the company. The impartial view of the external consultant may help to break away from the rigid structures.

- **SOX Requirements**



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How to get there using Change Request Manager

To enable the efficient and optimal usage of the Change Request Manager the following must be considered and implemented before the planning phase for Change Request Manager is conducted:

- The total SOLUTION LANDSCAPE must be configured and activated in Solution Manager
- Configuration for Change Request Manager completed
- STMS Setup on all satellite systems completed and functioning



How to get there using Change Request Manager – Setting up the Solution Landscape

- ◆ The Solution Landscape is also based on the logical grouping of SAP Products within a SAP system landscape.
 - Various customers creates one Solution Landscape and add all types of products and systems within this landscape.
 - Potentially this will lead to issues when further products and functions within Solution Manager are exploited e.g.. Helpdesk and Change request manager.
 - Group the systems in their own Solution Landscapes according to product and usage e.g.;;
 - SAP XI Installation
 - SAP BW Installation
 - SAP R/3 Installation
 - SAP ECC6 Installation
 - The samples above includes the DEV/QAS/PRD and TEST system if available.



Overview of Change Request Manager configuration and setup steps

- Define your Projects
- Configure Satellite Systems
- Define Communications
- Number Ranges
- Business Partners
- Roles and Responsibilities
- Customize Action Profiles



Defining your project and satellite systems configuration

- Define your projects
 - To use Change Request Management, you need to define a project in the Solution Manager for Implementation.
 - (SMI project) in transaction SOLAR_PROJECT_ADMIN.
 - Defining an SMI project requires the systems definition and the creation of logical components in transaction SMSY.
- Configure satellite systems
 - Ensure all Support Packs are up to date and implemented via RTCCTOOLS and SDCCN up to date.



Define communications

Define communications

- To use Change Request Management, you need to define a project in the Solution Manager for Implementation.

The screenshot displays the SAP Solution Manager interface for system 'PSC'. The main window shows the 'Clients' table with the following data:

Cli.	Name	Role	Logical sys.	RFC Read Access	RFC for Change Manager	Trusted System RFC	RFC for Solution Ma	Business System
000	SAP_A6	SAP refer		SM_PSCCLNT000	REALSM_PSCCLNT000_THM	SM_PSCCLNT000_TRUS	SM_PSCCLNT000_TRUS	
001	Auslieferungsmar	Customiz						
040	SPI Production	Productio	ZRBKPSC040	SM_PSCCLNT040	REALSM_PSCCLNT040_THM	SM_PSCCLNT040_TRUS	SM_PSCCLNT040_TRUS	
066	EarlyWatch	SAP refer						

The 'RFC for Change Manager' column is circled in red in the original image. The interface also shows a 'Landscape Components' tree on the left and a 'System Groups and Logical Component' section at the bottom.

Defining number ranges and Business Partners

Define number ranges

- Internal and external number ranges for the ABA notification and CRM service desk message must be created.



Generate Business partners

- Business partners are used in the Service Desk. Business partners are created in order to avoid having to create a separate user in the SAP Solution Manager system for every individual user who creates Service Desk Messages, Issues, or Change Requests/Documents.



Roles and responsibilities

Assign roles and responsibilities

- Before users can start working with SAP Change Request Management, the system administrator (or equivalent user) has to create user roles that contain the relevant authorizations, and then assign these roles to the corresponding users.



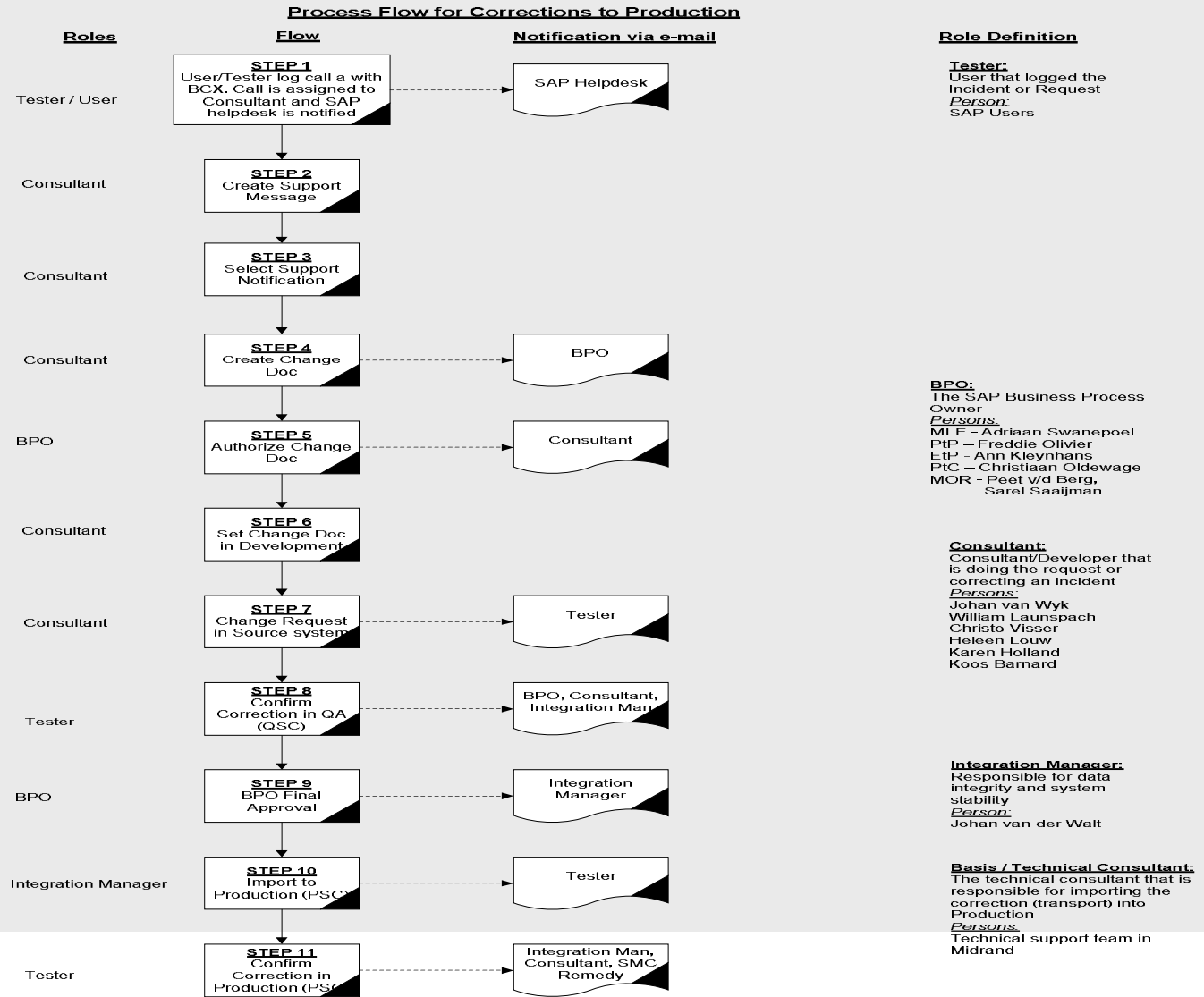
Customize action profiles

Customize action profiles

- If you want to enable users to create change requests directly from a Service Desk Message, you have to choose an action profile for the transaction type that you use in the Service Desk.
 - ◆ There are three categories of transaction types:
 - SAP Standard SLFN
 - SAP Standard SLF1
 - Your own or a copied transaction type



SAMPLE: Process flow for correction to Production



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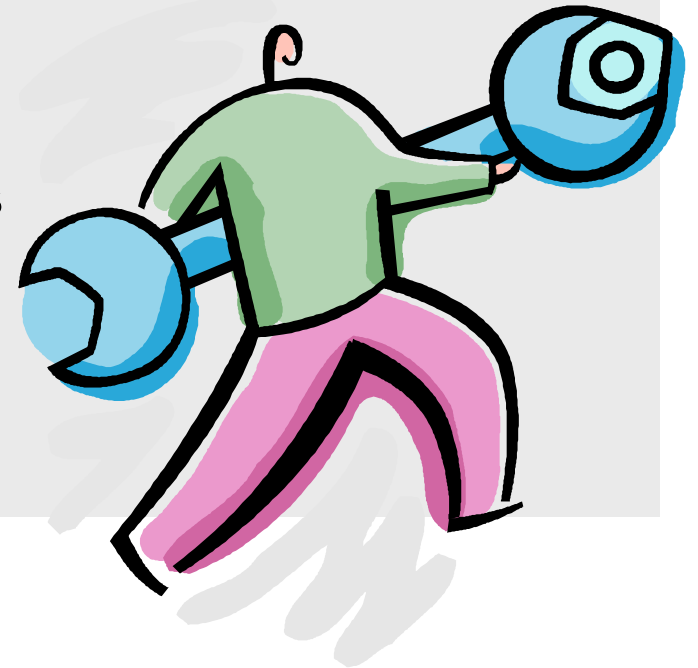
Lessons learnt and value-add

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Other Solution Manager functionality used in compliance processes

What are we using in Solution Manager to assist with compliancy?

- Daily system checklist report to business managers
 - ◆ SM20 Trace log analysis
- Critical system checklist component for SOX requirements
- EWA and SLA reports
- Maintenance Optimizer
- Change request manager audit trails



System checklists

Daily checks of Security Audit log are performed



Context	Instance	Task	User	Date	Time	Task Log Book Comment
User Defined Task Group	Critical Check DB02	Check Transaction Log Free Space	MANGALISOV	15.10.2007	08:05:54	32,493 MB Log free space
User Defined Task Group	Critical Check DB02	Check DB Free Space	MANGALISOV	15.10.2007	08:05:54	7,142 MB DB free space
User Defined Task Group	Critical Check DB12	Check Success of Transaction Log Backup	MANGALISOV	15.10.2007	08:06:30	15 Oct 2007 08:00:54
User Defined Task Group	Critical Check DB12	Check Success of DB Backup	MANGALISOV	15.10.2007	08:06:30	14 Oct 2007 21:53:142
User Defined Task Group	Critical Check SM12	Check for excessive lock entries	MANGALISOV	15.10.2007	08:07:52	Checked OK
User Defined Task Group	Critical Check SM13	Check for SAP Update Errors	MANGALISOV	15.10.2007	08:08:20	0 update error/s
User Defined Task Group	Critical Check SM37	Check batch jobs cancelled overnight	MANGALISOV	15.10.2007	08:09:16	5 cancelled job/s
User Defined Task Group	Critical Check SM51	Check All Servers in Landscape up and Running	MANGALISOV	15.10.2007	08:09:54	Checked OK
User Defined Task Group	Critical Check SM59	Check RFC Connections eg. FAX, IXOS, EXCHANGE	MANGALISOV	15.10.2007	08:11:12	Checked ok
User Defined Task Group	Critical Check SM66	Check Long Running Transactions and Analyze	MANGALISOV	15.10.2007	08:14:00	0 Long running jobs
User Defined Task Group	Critical Check ST03N	Check SAP Dialog Performance (prev.day)	MANGALISOV	15.10.2007	08:15:39	535.7 MS dialogue response time
User Defined Task Group	Critical Check ST22	Check for re-occurring shortdumps	MANGALISOV	15.10.2007	08:16:42	11 ABAP dump/s
User Defined Task Group	Critical SOX Check SM20	Check security audit log for errors	MANGALISOV	15.10.2007	08:17:06	0 errors

User defined task group for SOX

Define user task group for SOX controls

The screenshot displays the SAP Central System Administration interface. The left-hand navigation pane shows a tree structure under 'Central System Administration' > 'Administration Environment' > 'General Session Customizing' > 'PSC 0020213877 - Production System' > 'General Basis Administration Task Group' > 'Customer Task Area' > 'User Defined Task Group'. The 'SOX Compliance' task group is selected and highlighted in yellow.

The main content area is titled 'SOX Compliance' and contains the following text:

1. Create additional OS users

Requestor Signature (Required) Printed Name Date Tel.:

SAP System:

Below this text are several control buttons: 'Automatic Rating (All Tasks Performed)', 'All Tasks Performed', 'Flag Task', 'Load Default Frequencies', and 'Clear Log Book of Task'.

The bottom section of the interface shows a 'Task List' tab with a table of tasks. The table has the following columns: Status, Task, Frequency, Due Date, Done, Comment for Log Book, Date, Time, User, and Alternative.

Status	Task	Frequency	Due Date	Done	Comment for Log Book	Date	Time	User	Alternative
✓	1. Create additional OS users	if required		<input type="checkbox"/>		07.04.2006	08:52:16	PETERR	
✓	2. Change OS User password	begin of month		<input type="checkbox"/>	Changed	15.10.2007	13:13:05	DDIC	
✓	3. Create additional MSSQL DB Users	if required		<input type="checkbox"/>		07.04.2006	08:52:16	PETERR	
✓	4. Change MSSQL DB User password	if required		<input type="checkbox"/>		07.04.2006	08:52:16	PETERR	
✓	5. Change password of STD SAP system users	every 4 months		<input type="checkbox"/>	Changed	15.10.2007	13:13:37	DDIC	

The bottom status bar shows 'PM1 (1) 404' and 'NDCDERP44 OVR'.

SLA/EWA Reports

SLA/EWA reporting

- Weekly EWA reporting and monthly SLA reporting assist in analysis and rectifying SLA related issues and continues improvement to assist in the total compliancy process.



Solution Maintenance Optimiser

Keep track of Support Package Stacks implementations and change controls with the Maintenance Optimiser

The screenshot displays the SAP Solution Manager interface for the Maintenance Optimiser. The title bar reads "Solution: SASOL GBI SAP BW GLOBAL - SAP Solution Manager". The main window shows a process flow with five steps: 1. Plan Maintenance, 2. Select Files, 3. Download Files, 4. Perform Implementation (highlighted in yellow), and 5. End Maintenance. Below the flow, there are two tables: "Selected Systems" and "Recorded and confirmed download files".

Selected Systems

When you have downloaded the files, you can import them into the selected systems where you can document the implementation status. When you have finished the implementation, Continue takes you to the next step.

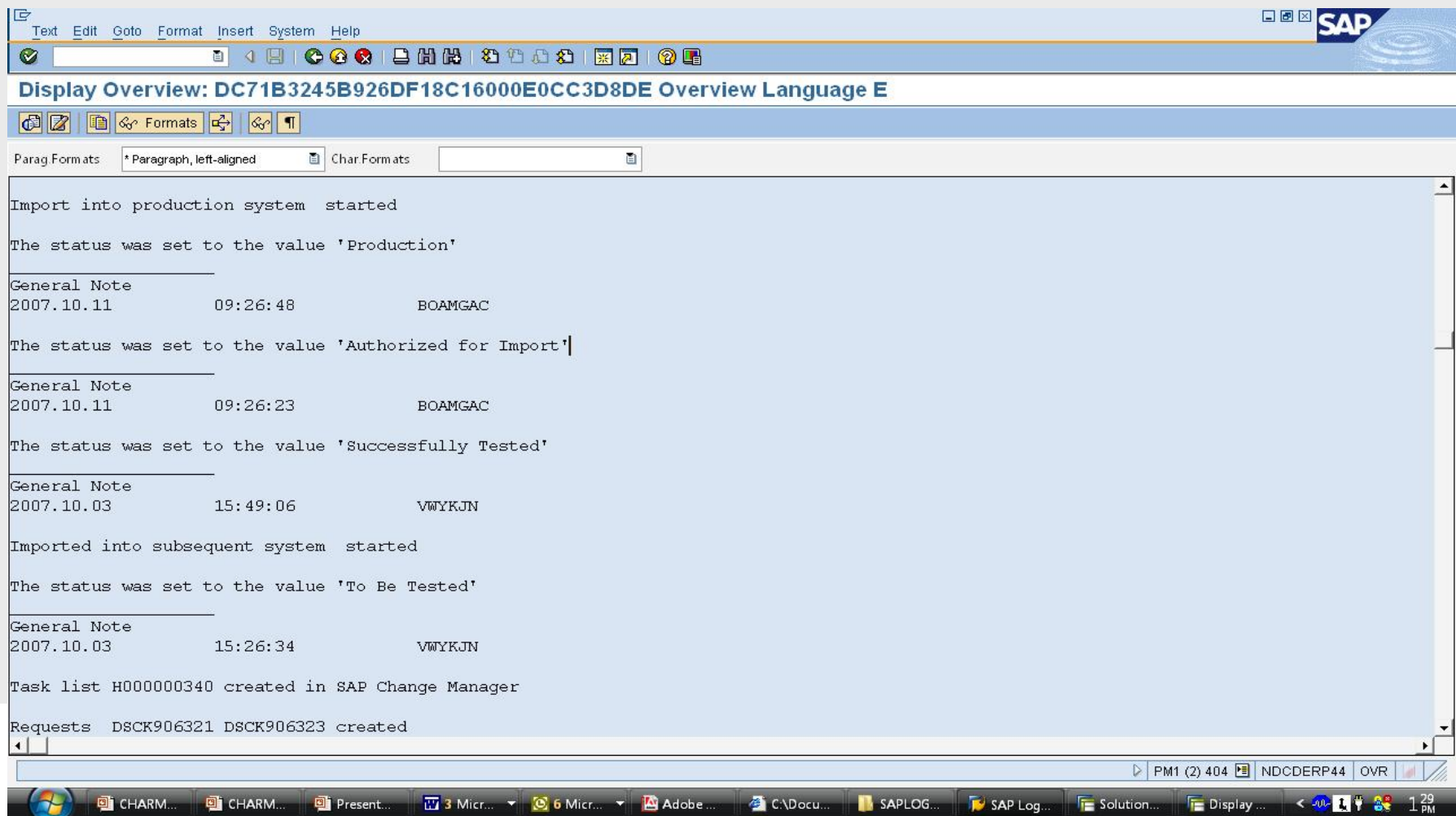
System	Start Date	End Date	Status of Implementation
DB8	2007.01.20	2007.02.16	New
DB9	2007.01.20	2007.02.16	New
PB8	2007.01.25	2007.02.06	New
PB9	2007.01.25	2007.02.06	New

Recorded and confirmed download files

File	Description	Details	Side Effects	User
SAPKA64018	ABA Support Package 18 for 6.40	Display	Display	S0001851529
SAPKIPYJ69	PI_BASIS 2005_1_640: patch 0009	Display	Display	S0001851529
SAPKIBIFQ2	BI_CONT 353: patch 0012	Display	Display	S0001851529
SAPKW35018	BW Support Package 18 for 3.50	Display	Display	S0001851529
SAPKIBIFQ3	BI_CONT 353: patch 0013	Display	Display	S0001851529

Change Request Manager Audit Trail

Every step of the Change Request process is recorded in Change Request Manager



The screenshot shows the SAP Change Request Manager interface. The title bar reads "Display Overview: DC71B3245B926DF18C16000E0CC3D8DE Overview Language E". The main content area displays an audit trail with the following text:

```
Import into production system started
The status was set to the value 'Production'
-----
General Note
2007.10.11      09:26:48      BOAMGAC
The status was set to the value 'Authorized for Import'
-----
General Note
2007.10.11      09:26:23      BOAMGAC
The status was set to the value 'Successfully Tested'
-----
General Note
2007.10.03      15:49:06      VWYKJN
Imported into subsequent system started
The status was set to the value 'To Be Tested'
-----
General Note
2007.10.03      15:26:34      VWYKJN
Task list H000000340 created in SAP Change Manager
Requests DSCK906321 DSCK906323 created
```

The interface includes a menu bar (Text, Edit, Goto, Format, Insert, System, Help), a toolbar with various icons, and a status bar at the bottom showing "PM1 (2) 404 NDCDERP44 OVR" and a system clock of 1:29 PM.

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Change Request Manager – issues experienced in setup and go-live phases

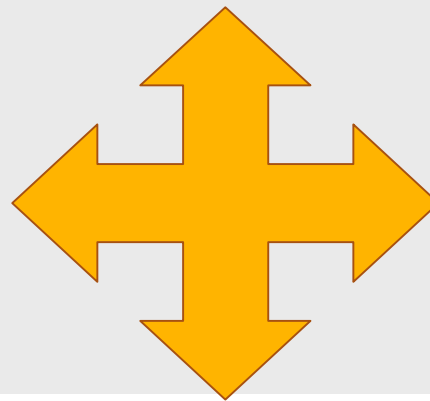
Issues and complications experienced with initial setup of change request manager:

- ◆ Ensure system landscape defined properly
- ◆ Ensure Support Packages and SDCCN setup correct across landscape
- ◆ Define transport domains effectively
- ◆ Create projects and configure properly
- ◆ Define and plan Business Partners and Hierarchy properly
- ◆ Give enough time for testing the process
- ◆ Ensure effective user training to support the change request process
- ◆ Define roles and responsibilities clearly



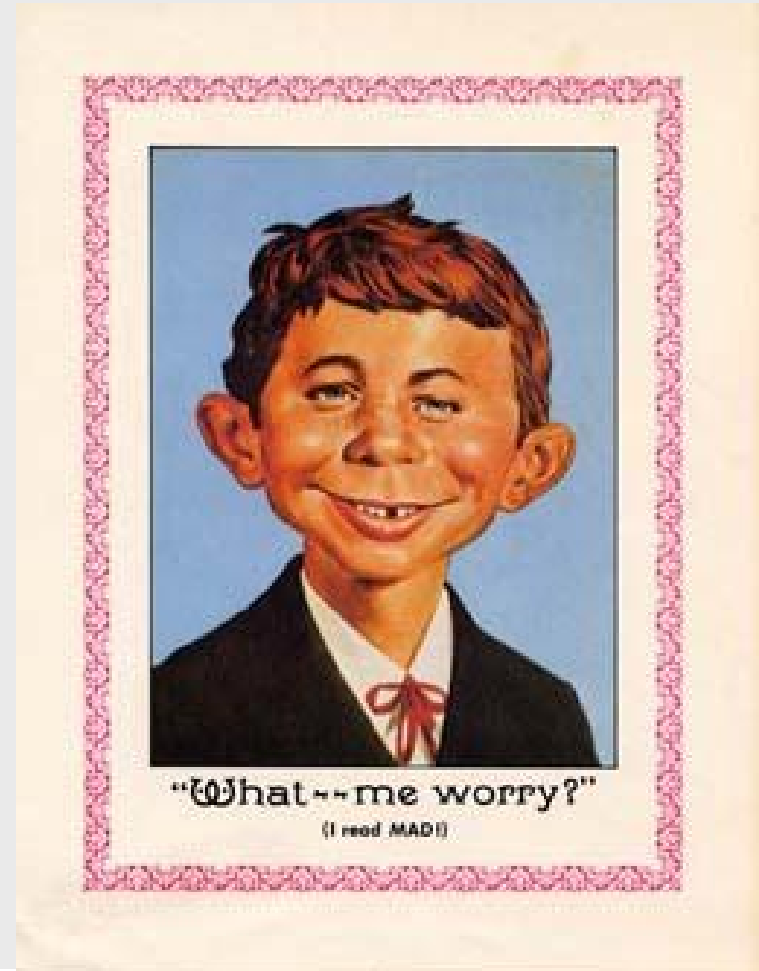
Other Lessons Learnt

- Defined Transport/Change Management Process
- Training is required for all users defined in your process (Tester, Consultant, Business approvers)
- Delay in change going to Production if no backup approver exist
- First to implement CHARM:
 - Could not use tested and proven processes
 - Transporting on Basis transports – Currently using urgent corrections for application transports.
 - Maintenance corrections to be used for Basis



To summarize - The value of CHARM in Sasol

- Changes are not going to Production without the correct approvals
- Approval steps (approvers) are control by SAP authorization
- All documentation is attached to the change (Specs, test results, etc)
- 3rd Party helpdesk nr on all changes
- Complete audit trail
- SOX's compliance



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Acknowledgement

