


**Managing Database Objects**


**Steve Ransom**



**Agenda**

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**A customer story - a way of  
managing database  
objects.**



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CSI Change Software Investigators

## Agenda

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- **The Customer**
- **What is the Problem?**
- **What is the Environment?**
- **What is the Solution**
  - Implemented so far
  - Future Plans




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## The Customer


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- **Large US Global Bank**
- **Small Part of the bank in the UK**




**The Problem**

- The pain is in production turnover
- DBA's apply changes to 30 Oracle databases increasing to 170
- Changes come from developers
- Implemented by DBA's
- Changes are in
  - ü SQL script files
  - ü Forms
  - ü Reports




**The Problem**

- Script files may contain changes to the schemas, tables, data, stored procedures etc. etc.
- The objects may need to be applied to a subset of the databases
- The objects may need to be applied in specific order



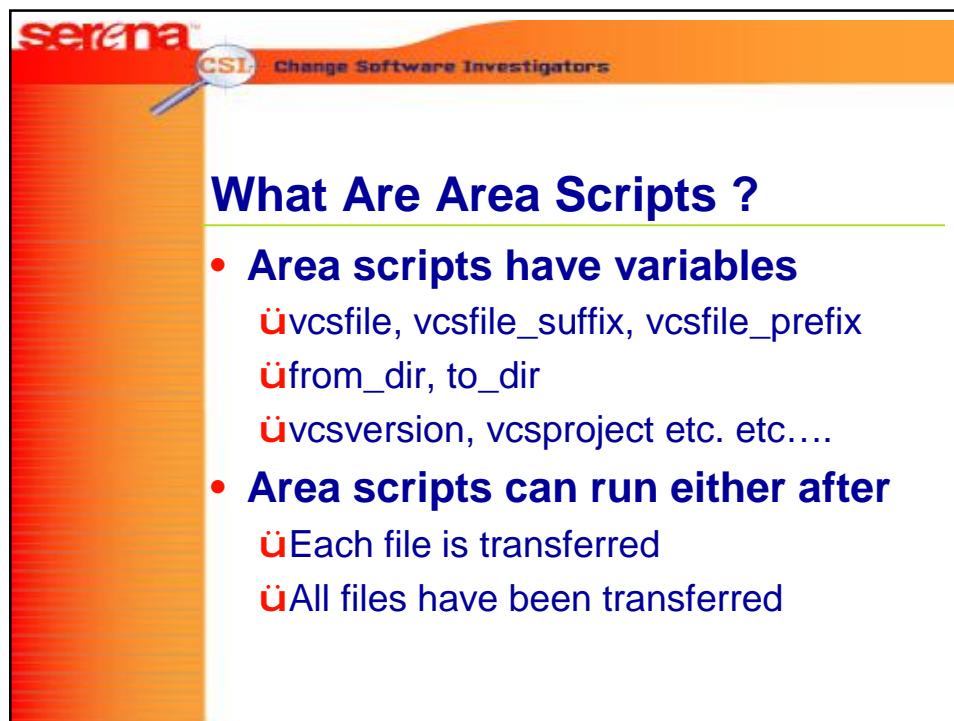
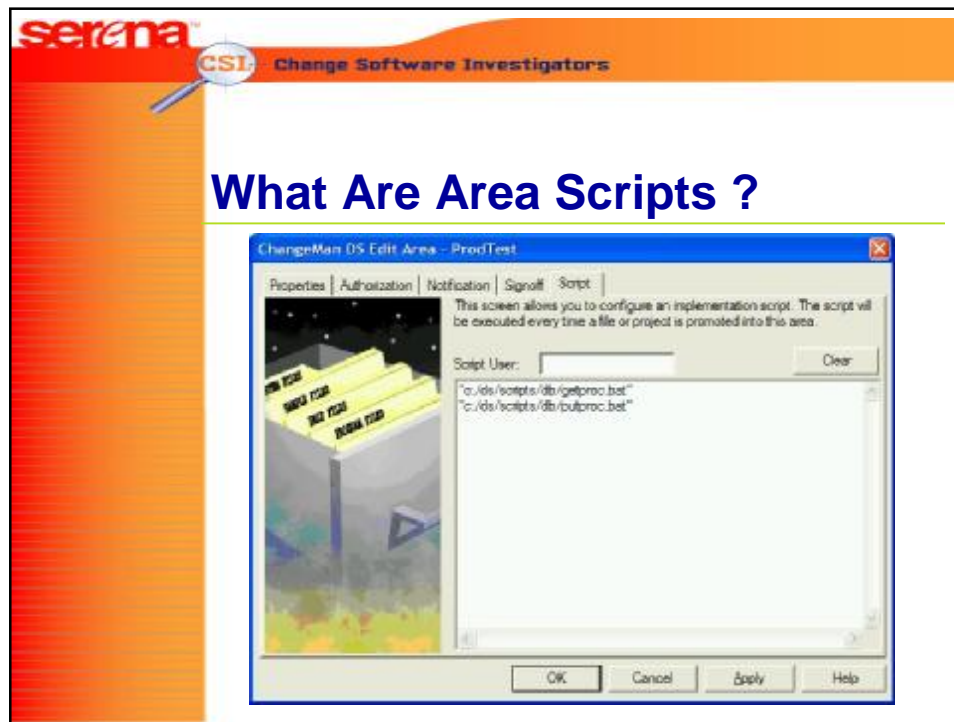
**The Problem**


- **During normal operation**
  - ü Changes applied overnight
- **Emergency fixes**
  - ü Applied as necessary



**The Environment**

- Windows NT, 2000
- UNIX (HP-UX)
- Oracle 8i
- 40 DS seats
- DS Server WIN2000
- DS Database SQLServer
- Flexcube (General Ledger System)






## What Are Area Scripts? GETPROC.bat

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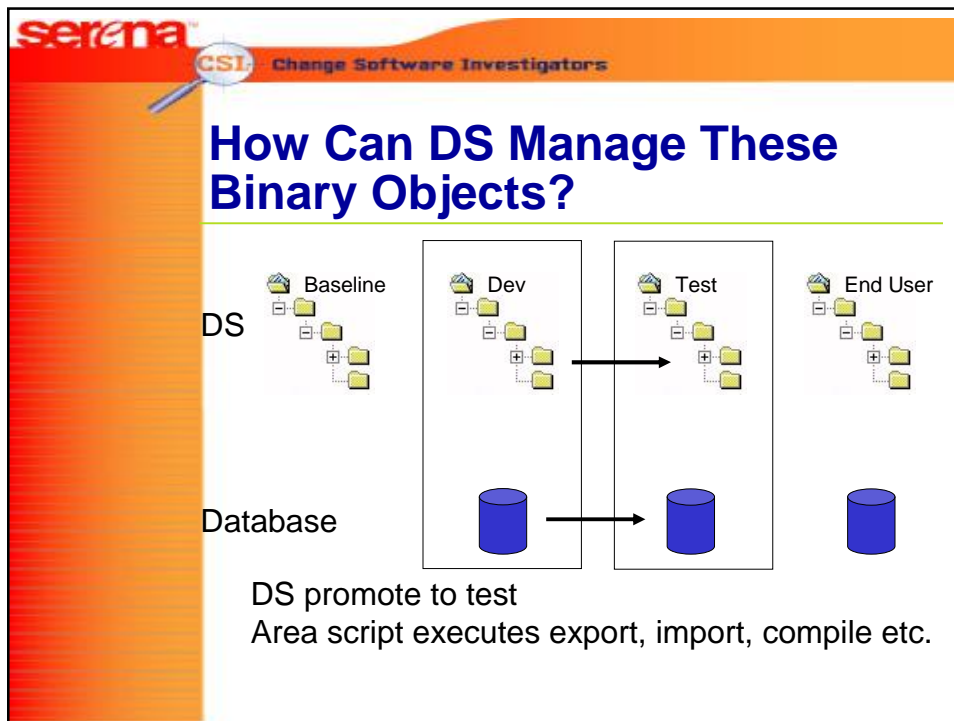
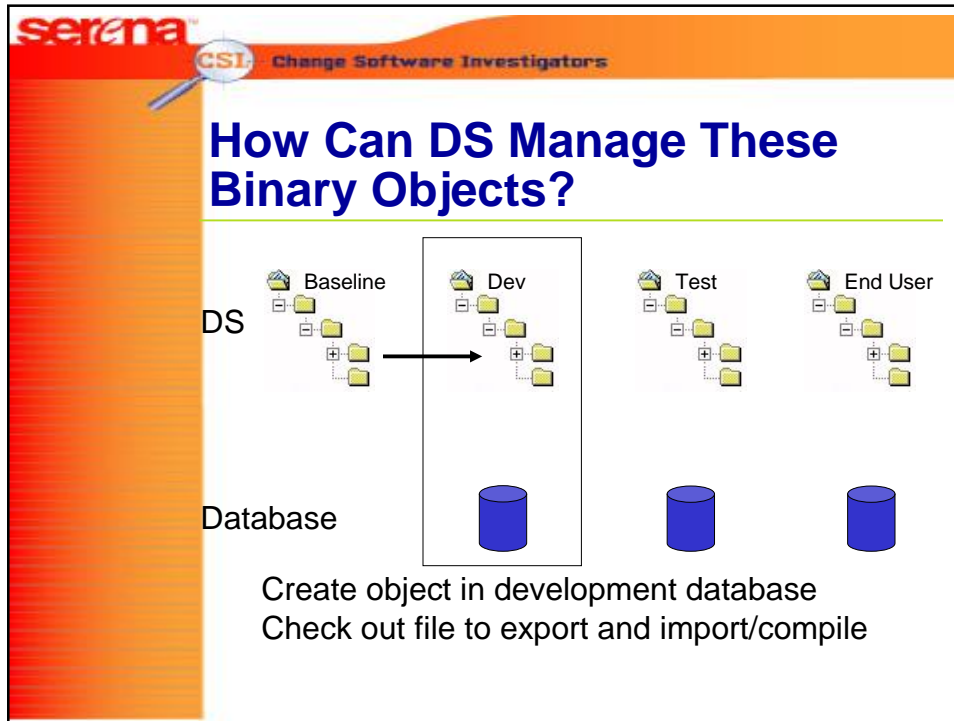
```
osql  
-h-1  
-E  
-d GA550  
-Q "sp_helptext @objname=dt_adduserobject"  
-o C:/ds/scripts/db/sp_helptext_output
```

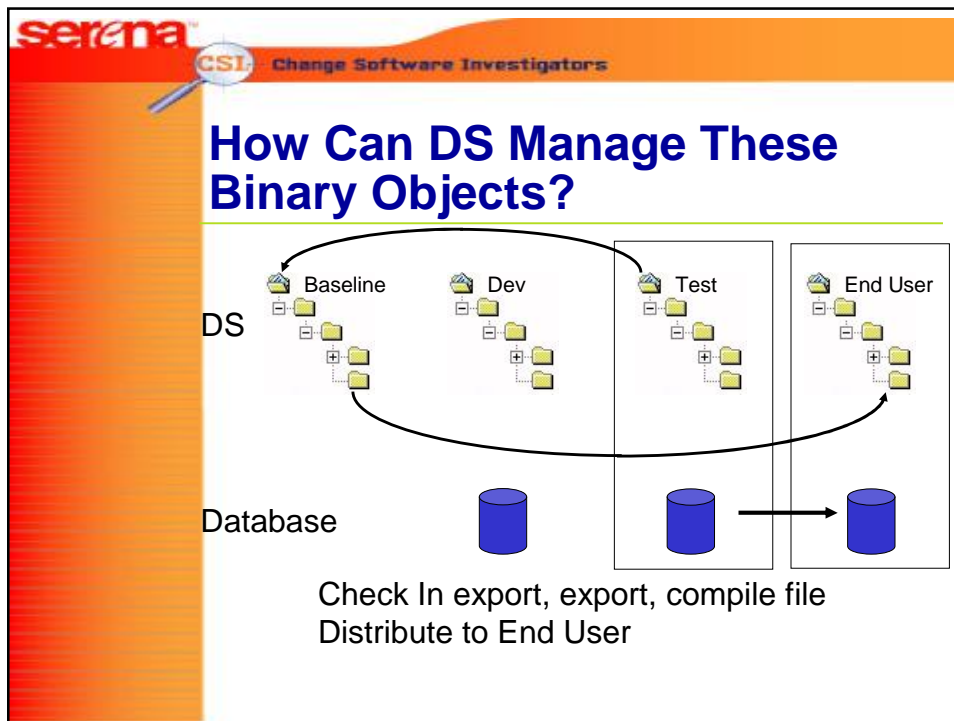
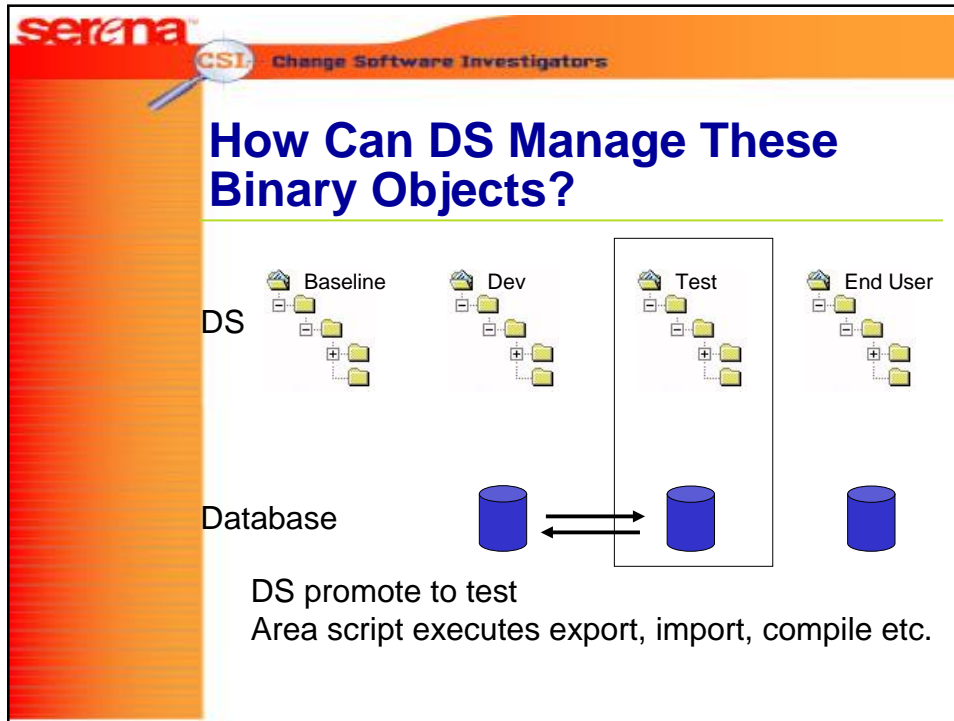


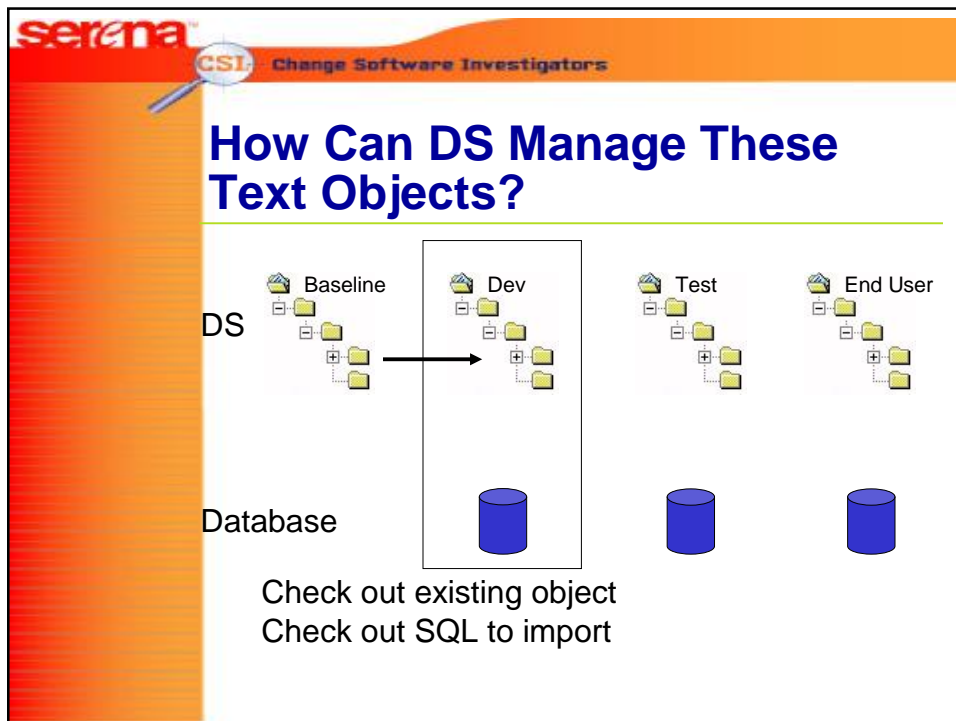
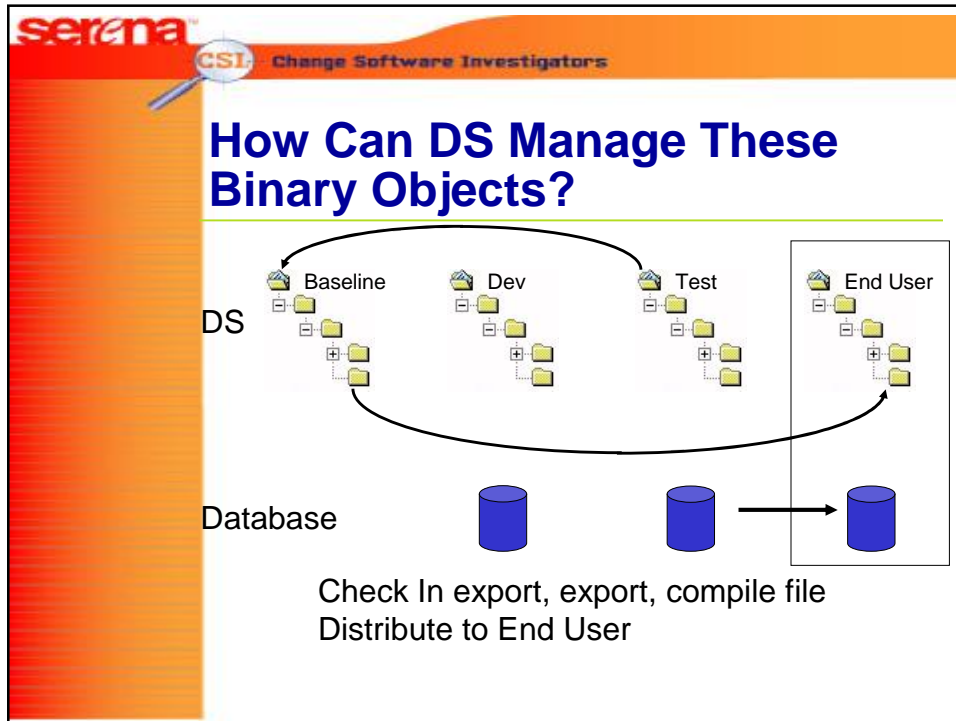
## What Are Area Scripts? PUTPROC.bat

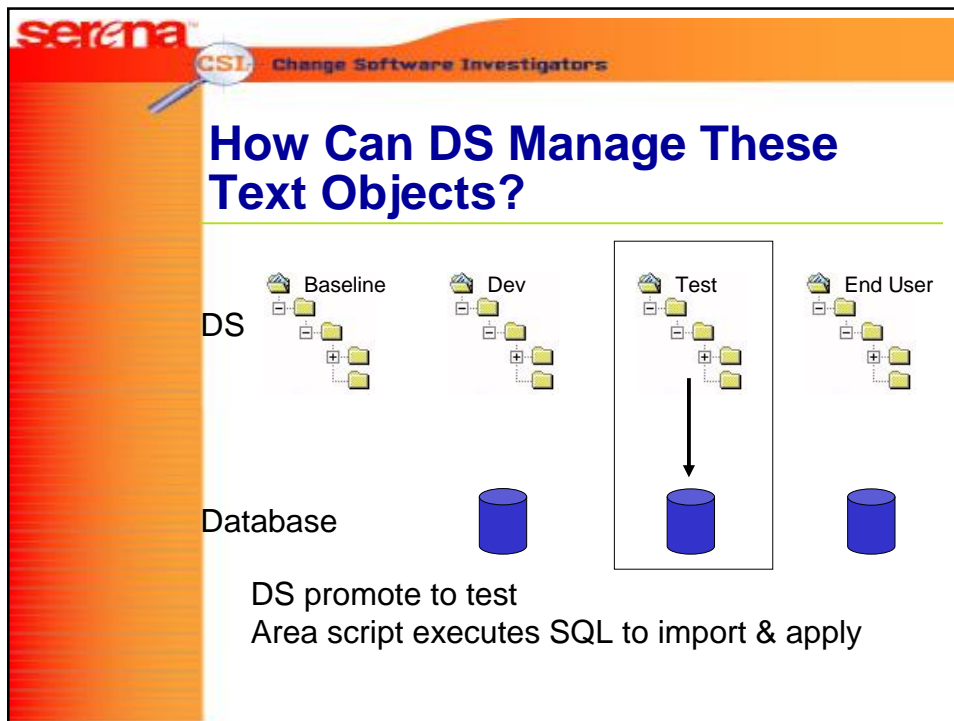
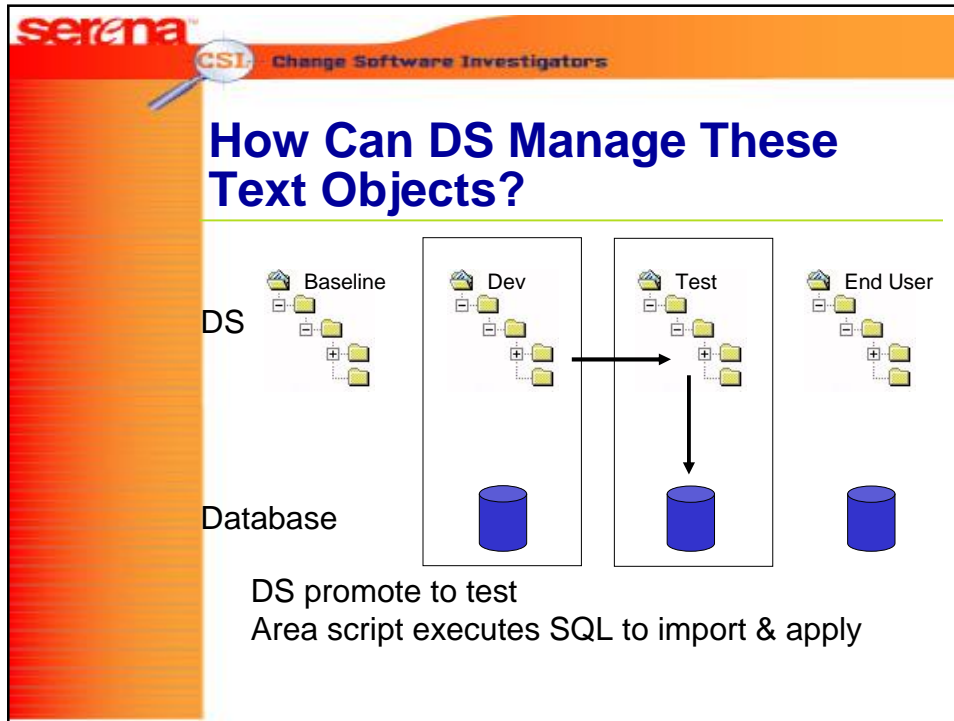
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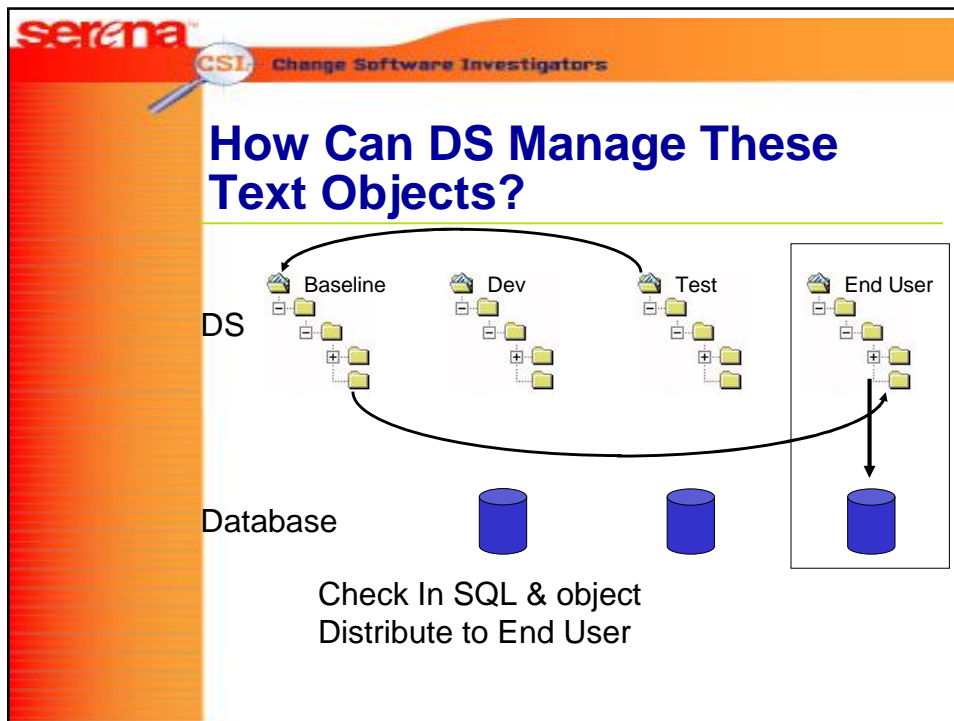
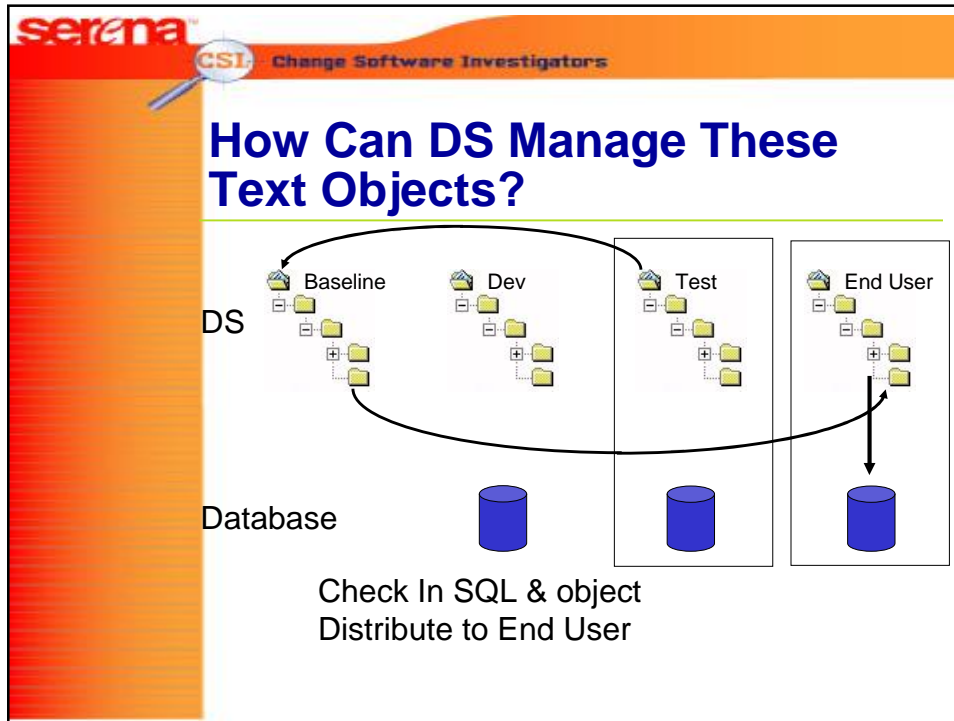
```
osql  
-h-1  
-E  
-d master  
-i C:/ds/scripts/db/sp_helptext_output
```
















## The Solution

- **DS can**
  - ü manage the scripts
  - ü apply the scripts to the databases in the correct sequence unattended.
- **Practically not very straightforward**
  - different area script every time
- **Control file approach taken**




## The Solution



24<sup>th</sup> and 25<sup>th</sup> of June 2003,  
Homerton College, Cambridge UK

Steve Ransom




**The Solution**

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**Contents of DBinst5.txt**

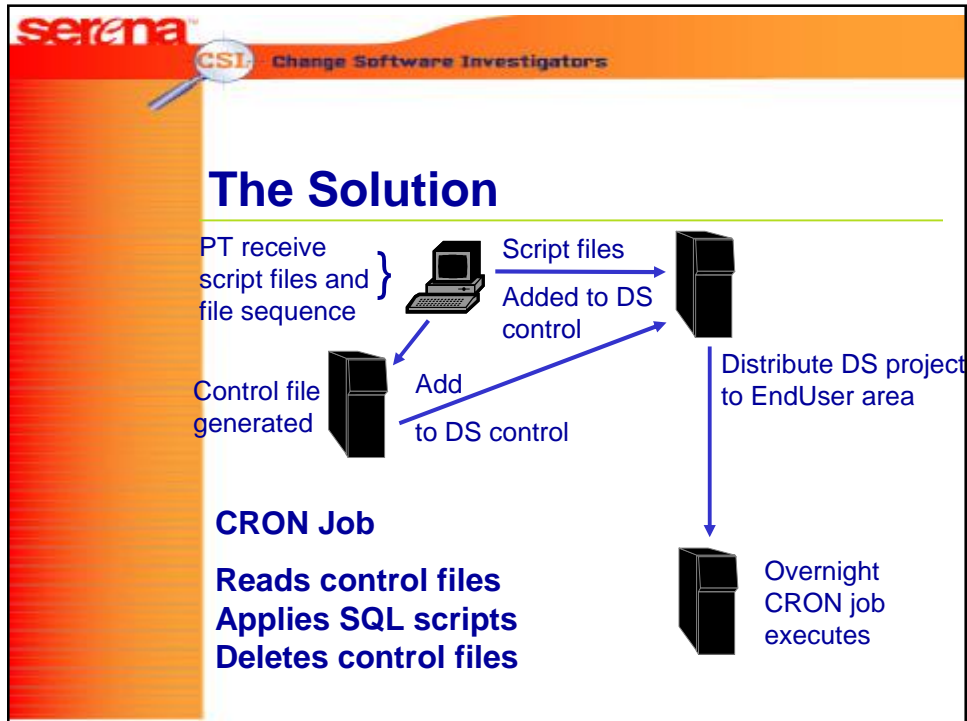
```
instance = DBinst5  
backout_update_address_table.sql  
backout_update_city_table.sql  
backout_update_state_table.sql  
update_city_table.sql
```




**The Solution**

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- **DS manages & distributes the scripts**
- **Creates a control file per database**
- **The control file contains the script execution sequence**
- **CRON reads the control files and applies the scripts**




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- The slide, titled "Future Plans – Last Week", lists several items under the Serena CSI Change Software Investigators header. The items are: Hide Data Source Selection, Add Control File to DS Control (with sub-points: Baseline, Development, Project, and Creates a list file of new control files), and Automatic Freeze Release. The sub-points are preceded by a red 'ü' symbol.
- Future Plans – Last Week**
- **Hide Data Source Selection**
  - **Add Control File to DS Control**
    - ü Baseline
    - ü Development
    - ü Project
    - ü Creates a list file of new control files
    - ü DCM command processes list file
  - **Automatic Freeze Release**



**Future Plans**

- DS only managing implementation
- No back out scripts
- No management in UAT
- No management in ST
- No management in Dev
- Replacing CRON with OPCA



**Summary**

- DS can manage database changes
- DS can manage database changes throughout the development lifecycle
- DS can manage database changes involving complex change combinations
- DS can support any type of change to any type of database