

# **A Practical Demonstration of Multilingual Capabilities in RDC**

## **4.6 Onsite Part II**



Singh, Liu

Dr. Letian Liu

DBMS Consulting

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# Acknowledgements

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- Many thanks to the OHSUG for this opportunity to present for the OHSUG Multilingual Focus group.
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# Assumptions/Scope/Disclaimer

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- Audience has a basic understanding of RDC 4.6 OnSite
- Scope: RDC 4.6.
- Disclaimer: The functionality and approaches described in this presentation are not necessarily supported by Oracle Corporation for the deployment of RDC 4.6 OnSite. Furthermore, no statement is made about the impact of deploying these approaches on a validated system.



## Need for Multibyte RDC 4.6 OnSite

- As of August 2010, there is not a supported NLS version of RDC 4.5.3 OnSite, according to Metalink ID: 728968.1, published version: 07-Sep-2008. However, there are practical demands for the ability to execute RDC 4.6 Onsite HTML Mode with multilingual and multibyte characters and for Patient Data Reporting to be possible with multibyte characters.
- However, there is tremendous interest in EDC solutions in the APAC market, especially in China, Taiwan and Singapore. The use of RDC in the greater APAC area will necessarily depend on the ability to deploy RDC with a multibyte capability.



# Execute RDC 4.6 Onsite with a Multibyte Character Set

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- It is technically possible:
  - Requires UTF8 character set.
  - Understanding of J2EE applications and their dependency on the Windows OS capability to use another language other than English, and support of codepages.
  - Registry changes to UTF8 references.
  - Translation of certain files.
  - Changes to the UIX environment.
    - UIX=User Interface XML, Oracle's framework for building interfaces to Web/J2EE applications
- However, the PDR MUST be customized.
  - PDR=Patient Data Report



# DEMO: RDC 4.6 HTML ONSITE RUNNING IN SIMPLIFIED CHINESE

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- Use either Stand-Alone or on-line system
- Explain various functions which can be adopted to multibyte use:
  - Login page.
  - Labels and prompts.
  - Activity Listings/News.
  - Data entry.
  - Discrepancy Management.
  - Warning Dialogues/Error Messages.
  - On-Line Help.



# Practical Limitations that Exist in this Type of Deployment

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- OS of the RDC Application Tier must have support for the non-English Language.
  - Default can still be in English.
  - Default cmd codepage can also be in English.
- PDR has to be customized to run without failures.
- Possibility of UTF8 specific bugs, such as password translation issues, increases.
- Supportability.
- Validation.



# Validation Considerations and Work Effort Required

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- Since this is not a supported configuration under Metalink ID: 180430.1, a complete internal re-validation of RDC 4.6 OnSite should be performed.
- Page designs must also be changed.
  - Long labels need to be reduced in size for Data Entry Layouts, DVGs and Discrepancy Management Internal and regular Comments.
  - Size reductions have to be estimated by trial and error. Since UTF8 can take up to **four** bytes to represent a single character, it is difficult to tell in advance whether or not a particular text string can be stored in the OC RDBMS, **even if it is accepted by the form interface itself.**





# Validation Considerations and Work Effort Required (2)

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- SAS View/Variable names may also need to be reduced.
- Translation to English may not be possible.
  - This is acceptable for regions with another language capability is required.
  - Many new users of RDC do not have the business need for translation to English, especially foreign government users.



# Suggestions for Future Directions of Multilingual Capabilities

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- Support for Multibyte deployments using the technically feasible solution are shown here.
- Make PDR more flexible, even if it uses BI with XML currently, it still needs heavy customization to work in a multibyte environment. This is a key factor in making the current RDC solution more attractive to non-English government customers.
- Support OC layouts with multibyte construction, including supporting objects like DVGs.



## Summary/Conclusions

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- RDC 4.6 OnSite in other languages is technically possible to deploy and can be supported on a global scale.
- Supportability from Oracle would make this solution ideal for foreign governments in APAC interested in a local-language solution from a market leader such as Oracle.



# Question and Answers

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Singh, Liu

[singh@clinicalserver.com](mailto:singh@clinicalserver.com)

+1-860-983-5848

Dr. Letian Liu

[lliu@clinicalserver.com](mailto:lliu@clinicalserver.com)

+86-134-0212-4879



## Biographies

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Singh, Liu, President & CEO, DBMS Consulting, Inc.

- Sunil is a Global Oracle Health Sciences deployment expert for DBMS Consulting. He has been an active member of the OHSUG community since 1996 and is extremely grateful for this opportunity to make these presentations at OHSUG 2010.

Dr. Letian Liu, Director, DBMS APAC, DBMS Consulting, Inc.

- Dr. Liu has recently moved back after 16 years in the US to Shanghai, to head the Asia Pacific operations for DBMS Consulting. Dr. Liu brings in 20 years of experience with clinical trials and data-management, Pharmaceutical R&D and applied chemistry.
- Prior to joining DBMS Consulting, Dr. Liu was technical lead for Oracle Clinical/ePower with Covance, and Senior Architect for Oracle Clinical/TMS/RDC/ePower/AERS/IReview at Ingenix(i3); and as research scientist at REVLON. Dr. Lucy Liu holds a Ph.D. in Analytical Chemistry from The City University of New York, a BS degree in Engineering from Zhejiang University in China.