



TEP ANGOLA DIGITAL JOURNEY ON RESERVOIR DATA MANAGEMENT

INTRODUCTION



Where do we come from ?

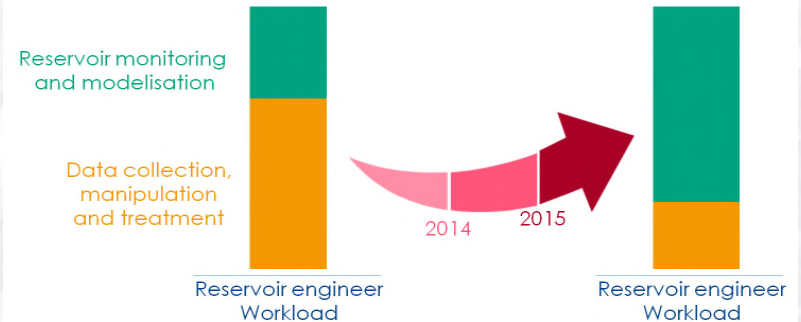
- **Several assets**
Brown and green fields, which worked differently
- **Many reservoir engineers**
Too many different work habits
- **Large amount of reservoir information**
since 2001...

➤ Multi-files and macros



Our objectives

- **Reduce the data workload** of reservoir engineers
- **Store data in a database**, bring additional data values
- **Create a transverse data service platform** and common asset functionalities



DIGITAL TRANSFORMATION STAGES



Our strategy

- (2014-2017) Mukua project
- (2016+) **TMORE Angola project**
replace Mukua by TMORE

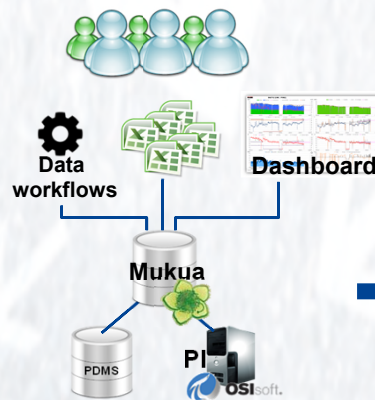
➤ Excel stage

Multi-files and macros



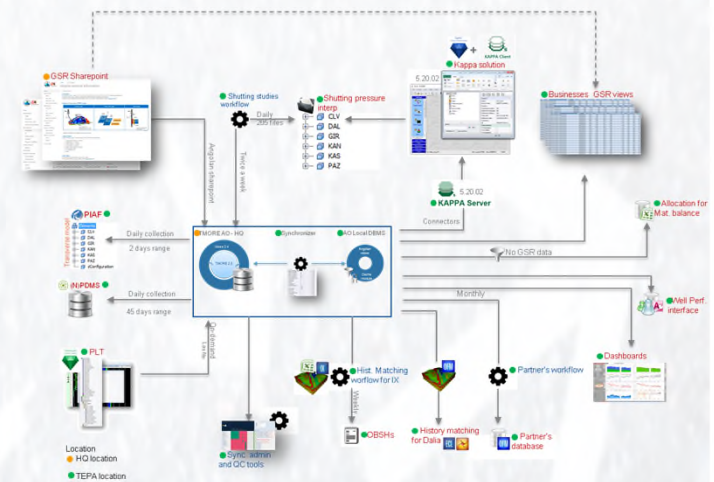
➤ Data source connection

Multi DB connections & Workflows




➤ Database integration

Databases, applications, workflows,



A USER-DRIVEN WEB SITE

- ▶ to simplify the access to the information



GEO INFO
GEOINFORMATION ANGOLA

[Home](#)

Angola reservoir information

[Home](#)

You are here : [Home](#)

[Asset models](#)

[Wells](#)

[Flow units](#)

[Well & Flow units](#)

[Prod & Inj association](#)

[Well measure](#)

[Production & Injection](#)

[PI](#)

[Static pressure](#)

[Well test](#)

[Reservoir conditions](#)

[PLT](#)

[Surface measure](#)

[Balance](#)

[Dashboards](#)

[Analytics & loading](#)

[Data analytics](#)

[Data services](#)

[Transversality](#)

[Platform information](#)

[Application support](#)

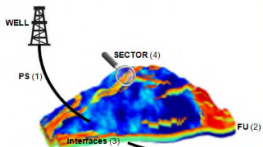

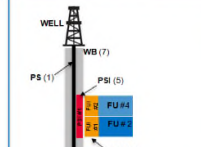
[About](#)

[Glossary](#)

Introduction

This web site offer a simply access to all reservoir information processed and stored in the TMORE Angola platform .
Find here views created to enlarged the TMORE platform regarding assets needs.
Main views are available through this web solution, for any other subject please contact [IGR/BDSM](#) team.

Illustration of some basics TMORE concepts

Small scale	Flow unit scale	Well scale
 <p>(1) PS = Production String (2) FU = Flow Unit (3) Interface = PS Interface & FU Interface (4) Sector = Sector/Fault, FU interface</p>	 <p>West Sector FU #3 FU #1 East Sector FU #4 FU #5 Reservoir #1 Reservoir #2</p>	 <p>PS (1) = Production String Interface FU (2) = Flow Unit Interface WB (7) = Wellbore</p>

Deeper informations are available at the [glossary](#) part.

"Assets" Models

These following "assets" models are part of the TMORE angola database:

1. Girassol/Rosa (Block 17 / Area A)
2. Dalia (Block 17 / Area A)
3. Paziflor (Block 17 / Area B)
4. CLOV (Block 17 / Area B)
5. Block 2 (only Total gas injectors)
6. B32 Kaombo Norte
7. B32 Kaombo Sul
8. ANLG

Access rights

All these data are secured per block, area or asset.
For any grant/revoke request, please contact [IGR/BDSM](#) team.

©. Boudry (2017)

- 3 types of components

Metiers thematics

Producer-Injects Association

Navigation: [Home](#) > [Producer and injector association](#)

Definition

Based on the Java JET interface classes, these angle-brackets give the injection contribution for a specific producer through the connected interface. The sub-labels can be used as the time.

Example: [injector@producer](#) > [injector@producer](#) > [injector@producer](#)

Custom: These labels are not only used in combination between, but also between when INJECT is used in the production phase.

Association of producer and injector (injector@producer)

Injector	Producer	Injector@Producer
807 - injector support	802 - JET_APLM_SUPPORT_INF	807 - JET_APLM_SUPPORT_INF
807 - injector support	802 - JET_APLM_SUPPORT_INF	807 - JET_APLM_SUPPORT_INF
807 - injector support (Global mode)	802 - JET_APLM_SUPPORT_INF	807 - JET_APLM_SUPPORT_INF
807 - injector support	802 - JET_APLM_SUPPORT_INF	807 - JET_APLM_SUPPORT_INF

- ▶ Ready-to-use information

[illegible]

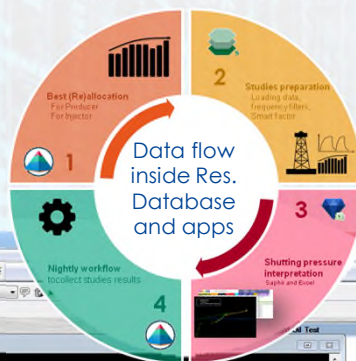
- Specifications for traceability

The screenshot displays the 'Daily Data Presentation' interface, which is organized into four main panels. The top-left panel shows a flowchart of the data processing pipeline, starting from 'Daily Data Presentation' and branching into 'Daily Data Presentation' and 'Daily Data Presentation'. The top-right panel shows a table of data, with columns for 'Date', 'Time', 'Location', 'Status', and 'Count'. The bottom-left panel shows a table of data, with columns for 'Date', 'Time', 'Location', 'Status', and 'Count'. The bottom-right panel shows a table of data, with columns for 'Date', 'Time', 'Location', 'Status', and 'Count'.

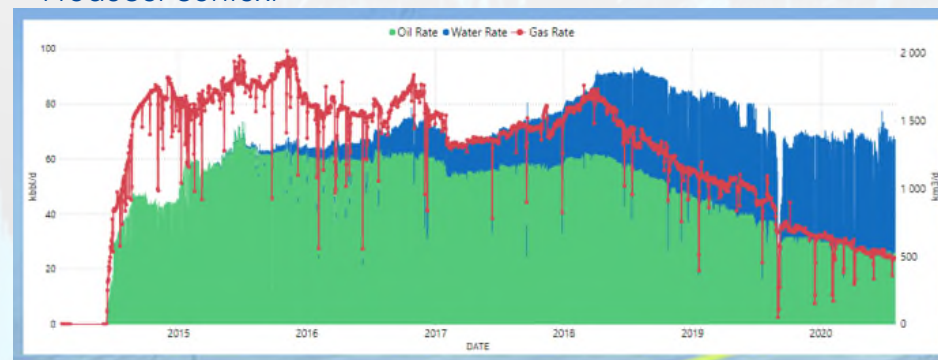
and more...

RESERVOIR TOOLS INTEGRATION

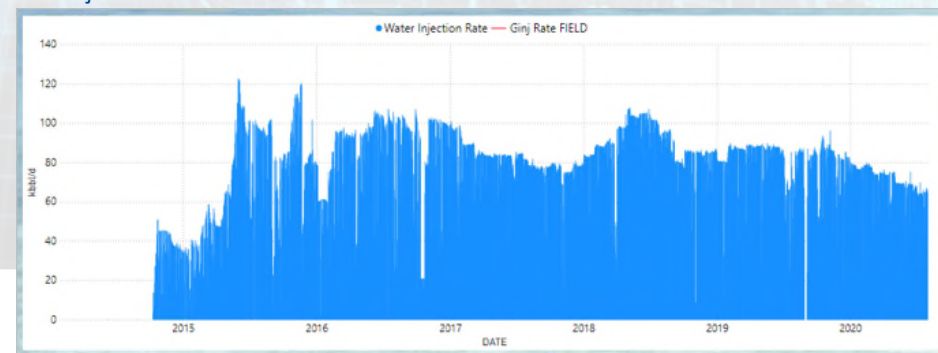
- Integration creating an interface with others application and databases.



- One reservoir dashboard for all GSR assets: data analysis and QC
- Producer context



- Injection context



CONCLUSION



Project implementation ?

➤ key success factors

- The advanced data Model (RMDb)
- Angola functionalities based on 4 pillars:



Upcoming Challenges...

- Keep this amazing journey
- Do we ready to the next level?



Q&A

