WhereScape RED 10.0.0.0 Features and Highlights

PostgreSQL metadata repository

- RED Metadata is now stored within a PostgreSQL database
- This removes the Microsoft reliance and enables the use of cloud/hosted PostgreSQL services as well as an on premises solutions
- Decouples the repository from the target platform, providing significant performance improvements where target platforms are resource constrained
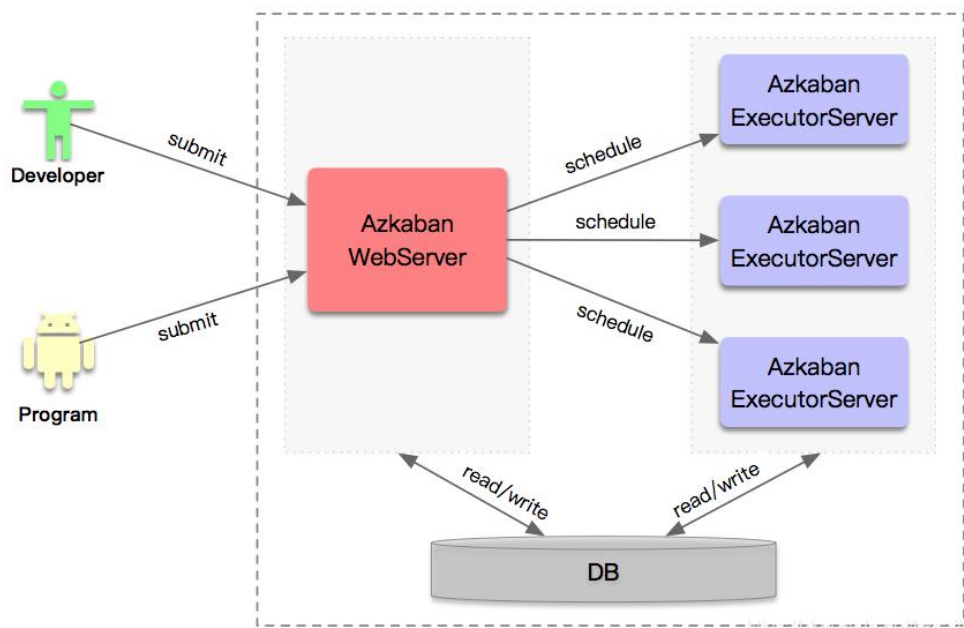
Fully Templated

- All code generation is now templated, giving users full control over exactly how code is generated.
- Templates are defined using Pebble and can be used to generate code in any language
- WhereScape standard templates now generate Python and Powershell that is operating system agnostic, enabling users to execute on Windows or Linux
- Templated / configurable elements include:
    - Validation templates to detect where metadata is out of sync with physical objects, including tables, views and indexes
    - DDL templates to CREATE / DROP / ALTER new or changed objects
    - Data ingestion or Load scripts (i.e. the EL of ELT)
    - Data transformation or Update scripts (i.e. the T of ELT)
    - Data Export scripts
    - Display data command
    - Multi-step 'Action scripts' (*see below)*
- Extensible source connections and user-defined browse scripts
    - Providing connectivity to any data source that can be accessed via a command line or script
- Scheduler integration
    - Publishing job definitions to Azkaban scheduler

Azkaban Scheduler

- Browser-based console (in addition to the WhereScape RED scheduler console)
    - Jobs restartable from point of failure
    - Graphical views updated during execution:
        - Job and task performance over time

- - - Job task flow
    - ○ Role-based access for
      - ■ Readonly
      - ■ Execute
- ● Native email alerting
- ● Advanced schedule timing options
- ● Linux, Windows or hybrid architecture
  - ○ Removes Microsoft reliance
  - ○ Opens the option in subsequent releases for running in a container instead of a server or cloud VM
- ● Scalable by adding new executors

- ● Load balancing by allocating jobs to specific groups of executors using 'executor group' tags enabling Azkaban to allocate jobs to the least busy executor in the group
- ● Jobs can be killed during execution and restarted from failure point
- ● Rest API to allow other applications to control jobs
- ● Integrated with WhereScape RED via a 'Publish template'. This design opens the option in subsequent releases for publishing to other schedulers (e.g. Airflow, Azure Data Factory…)

Action Scripts

- ● The code associated with Scheduled task 'actions' is now templated and configurable, for fine-level control over the actions executed on the scheduler.

- Different object types - e.g. table, view, index, export, script - have different configurable actions.
- *A future release will enable the definition of additional actions as well as making them accessible from the UI menus (i.e. in 'interactive' mode as well as scheduled). This opens up potential for new Enablement Packs such as:*
    - *Compile procedure*
    - *Create/Recreate ADF pipeline*
    - *Create/Recreate Snowflake Task/stream*
    - *Push to Git*
    - *Push to Collibra…*
    - *Run tests defined within external test automation tool*

Linux Execution

RED now optionally supports the execution of generated scripts for all object types on a Linux/Unix server instead of the Windows machine that's running WhereScape RED. This is in addition to execution via the scheduler - which can also now be on Linux as well as Windows.

Installation and upgrade process

- New Setup Wizard 'Enablement Pack aware'
    - Provides a GUI for installing and updating Enablement Packs
    - Allows connection 'Targets' to be defined if they do not exist
- Improved REDCLI (Command Line Interface) to facilitate automated installations
- New executables:

"Setup Administrator" application replaced

The WhereScape "Setup Administrator" application has been discontinued, with its functionality reallocated to the following applications:

Functionality	New Location
Deployment	WhereScape RED (med.exe) + RedDeploy.exe + RedCli.exe

License key management	WhereScape RED (med.exe) + RedInstallLicense.exe + RedCli.exe
Validate/upgrade metadata repository	WhereScape RED (med.exe) + RedSetupWizard.exe + RedMetadataValidate.exe + RedCli.exe
Create new repository	RedSetupWizard.exe + RedMetadataValidate.exe + RedCli.exe
Install & configure new scheduler(s)	RedSchedulerInstaller.exe + RedCli.exe

Deployment

- Deploying objects from one environment to another is now performed within RED
- Users can create/configure connection targets during deployment if they do not exist in the target environment

Autorun scripts

RED now supports a new category of script that is run automatically upon startup of RED, after a successful log in; either every time or as a one-off. These autorun scripts give Enablement Pack installers the ability to run post-install steps.

REDCLI Improvements

- Enablement Pack installations/upgrades
- License keys - add new/update and accept terms
- Deployment logging
    - Allows users to programmatically determine if problems have occurred
    - Logging format: json, xml or human readable
    - Separated into separate nodes (info & errors)
        - metadata deployment errors: fatal as they can result in incomplete metadata updates
        - target errors: non-fatal
        - Information details
        - Information summary
- New commands
    - deployment-options

- ○ enablement-pack
- ○ external-scheduler - adds Azkaban configuration to RED metadata

Object Size Limits Increased

- DDL (64,000 characters)
- Transformations (32,000 characters)
- Procedure/script/template line (4,000 characters)
- Job name (256 characters)
- Length of object & column names (256 characters)

UI/UX Improvements

- A new ribbon bar replaces the original buttons & menus, simplifying and consolidating layout

WhereScape 3D compatibility

- Compatible with WhereScape 3D 8.6.9.1 and higher

Licensing

- Use your existing WhereScape RED license