

## DBE\_PerformDatabaseRequest – Database Engine Services

### Revision history

2017-04-05	Robin Lamacraft	Original draft
2018-04-16	John Lucas	Minor edits

### SCOPE

This module is the wrapping around the database engine. All requests to access the database engine must be performed by calling this module. The module's API must provide a standardized view of the database in ISO SQL terminology. Any request for an action on the database must be made using standard syntax and keywords.

This module must adjust any database request to the syntax of the API of the database engine. That is, no database engine quirks shall be visible to any other modules that make requests upon the database engine. Only DBA\_ManageDatabaseTransaction may call this module.

**NOTE:** It should only be this module that needs to be replaced if the database engine is replaced by another.

### ACTIONS:

Performs a series of database requests according to the rights of the user:

1. All requests must be converted from an agreed standardized SQL form to the local database's dialect before applying them
2. Update the database
3. Retrieve data from the database
4. Validate the database indexing
5. Perform database management tasks.

NOTE: The database can not issue warnings and errors directly to be viewed by the client user. They must be passed back to the caller to transmit them back to the BR layer for logging, then finally to the GUI layer for display. (The mechanism for reporting errors is to be determined).

### USED BY

DBA\_ManageDatabaseTransaction.

### AUXILARY DATA USED

Unknown.

### REQUIRED SERVICES

None

### APPLICATION PROGRAMMING INTERFACE (API)

1. Need Details.

### WARNING CONDITIONS

1. Need details of the condition that raised the warning, example message and possible next steps.

### ERROR CONDITIONS

1. Need to record the condition that raised the error, example message and possible next steps.