**Database Version Control Module Documentation**

Purpose: There is a need to store the upgrade history for a given database instance so it can safely and easily be upgraded when a given version of an application or module is deployed. This module will serve to inform data staff of which database version a given database instance is on and when each upgrade was applied to the instance. This module is used to apply the necessary database upgrades in order to deploy a given version of an associated application or module.

Repository: [git@pichub.pifsc.gov:application-development/centralized-tools.git](mailto:git@pichub.pifsc.gov:application-development/centralized-tools.git) in the DB\_version\_control folder

Related Document: [DB Version Control Module SOP](DB%20Version%20Control%20Module%20SOP.docx)

Naming Convention: The Objects used in the module have the prefix "DB\_UPGRADE\_"

Method:

* Oracle Tables:
  + Each time a database upgrade is applied it will insert a record in to the DB\_UPGRADE\_LOGS table that defines the numeric version and application/module name that was applied
* Oracle Views:
  + The DB\_UPGRADE\_LOGS\_V view can be used to view the upgrade logs for a given database instance
* \*\*Note: detailed object/column comments are defined on each table and view database objects

Installing/Upgrading the database for a given module version:

* New installation: If you are installing this module on a database instance for the first time run the DB\_version\_control\SQL\DB\_version\_control\_combined\_DDL\_DML.sql script.
* Upgrading an existing installation: You must first determine which version of the Database Version Control database is currently installed by querying the DB\_UPGRADE\_LOGS\_V view with the UPGRADE\_APP\_NAME = 'Database Version Control'. The highest UPGRADE\_VERSION value is the currently installed database version (e.g. 0.3). The scripts (DB\_version\_control\_DDL\_DML\_update\_v[MAJOR].[MINOR].sql where [MAJOR] is the major version number and [MINOR] is the minor version number) in the DB\_version\_control\SQL\upgrades\ folder will be run in order to upgrade the database to the desired version. For instance if the current version of the database is 0.3 and the desired database version is 0.5 the DB\_version\_control\_DDL\_DML\_update\_v0.4.sql and DB\_version\_control\_DDL\_DML\_update\_v0.5.sql files will be executed on the database instance in that order to perform the upgrade.
* \*\*Note: DB\_version\_control\SQL\README.txt contains detailed information for the general database version control policies