# Steps For Schematics Database Changes

1. Prior to starting these steps, please ensure EDER version 10.0.3.521 is installed on the machine that the Schematics installation is being performed from.
2. Edit each of the Python scripts in the Batch/ folder to reference the correct database. Modify the “Database\_Connection = “ line to reflect the target database.
3. Run batch script in a command prompt.
4. Copy paste the output text into a log and save it.
5. Import XY coordinate system from Electric Dataset for both new feature classes, PGE\_VERSIONDELETEPOINT and PGE\_VERSIONDELETELINE.
   1. To do this, right click the feature class, select properties, select the XY Coordinate System tab, and select Import.
   2. Select the Electric Dataset in the target database.
6. Register the line/point feature classes as versioned. Right click the feature class and select ‘Register as Versioned’.
7. Set permissions on new feature classes:
   1. PGE\_VERSIONDELETEPOINT
   2. PGE\_VERSIONDELETELINE
   3. PGE\_EDERChangeSetLine
   4. PGE\_EDERChangeSetPoint
   5. PGE\_EDERSession0MapGrid
   6. PGE\_EDERPostedSession

|  |  |  |
| --- | --- | --- |
| Role | View | View & Edit |
| SDE\_EDITOR | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession |
| SDE\_VIEWER | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession |  |
| DAT\_EDITOR | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession |
| \*\*DATACONV | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession |
| GISINTERFACE | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession  PGE\_SCHEMGUIDTOTAL | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession  PGE\_SCHEMGUIDTOTAL |
| GIS\_INTERFACE | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession  PGE\_SCHEMGUIDTOTAL | PGE\_VERSIONDELETEPOINT  PGE\_VERSIONDELETELINE  PGE\_EDERChangeSetLine  PGE\_EDERChangeSetPoint  PGE\_EDERSession0MapGrid  PGE\_EDERPostedSession  PGE\_SCHEMGUIDTOTAL |
| **\*   = Except** EDGIS.\*\_BUILDERR & EDGIS.PGEDATAMODELVERSION  **\*\* = ONLY** QxQ & MxQ instances | | |

1. Create the tables needed to move and store the XY values and attributes from schematics:
   1. Run the following SQL on the EDER system:

create table EDGIS.PGE\_EDSCHEMGUIDTOTAL (OBJECTID number(38),owner nvarchar2(160),ED\_TABLE NVARCHAR2(160),FCID NUMBER(38),ED\_OID NUMBER(38), ED\_GUID NVARCHAR2(38),MINX FLOAT(64),MINY FLOAT(64)) ;

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (STATUS NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (CIRCUITID NVARCHAR2(18));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (OPERATINGVOLTAGE NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (SYMBOLNUMBER NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (OPERATINGNUMBER NVARCHAR2(18));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (DISTRICT NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (DIVISION NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (NORMALPOSITIONB NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (NORMALPOSITIONC NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (NORMALPOSITIONA NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (INSTALLATIONTYPE NVARCHAR2(10));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (CONVCIRCUITID NVARCHAR2(18));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (LABELTEXT2 NVARCHAR2(200));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (SUBTYPECD NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (WINDSPEEDCODE NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (RISERUSAGE NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (NAMEOFCOGENERATOR NVARCHAR2(100));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (RATEDAMPS NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (LINKRATING NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (LINKTYPE NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (COMPLEXDEVICEIDC NVARCHAR2(10));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (DEVICEGROUPNAME NVARCHAR2(100));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (DEVICEGROUPTYPE NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (TOTALKVR NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (TOTALKVAR NUMBER(22));

alter table EDGIS.PGE\_EDSCHEMGUIDTOTAL add (CONVERSIONID VARCHAR2(22));

* 1. Then run the following SQL on the EDER system:

create table EDGIS.PGE\_SCHEMGUIDTOTAL (owner nvarchar2(160),SCH\_TABLE NVARCHAR2(160),UCID NUMBER(38),UOID NUMBER(38), UGUID NVARCHAR2(38),MINX FLOAT(64),MINY FLOAT(64),MAXX FLOAT(64),MAXY FLOAT(64),OID number(38)) ;

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (SCHEMATICTID NVARCHAR2(256));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (STATUS NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (CIRCUITID NVARCHAR2(18));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (OPERATINGVOLTAGE NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (SYMBOLNUMBER NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (OPERATINGNUMBER NVARCHAR2(18));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (DISTRICT NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (DIVISION NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (NORMALPOSITIONB NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (NORMALPOSITIONC NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (NORMALPOSITIONA NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (INSTALLATIONTYPE NVARCHAR2(10));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (CONVCIRCUITID NVARCHAR2(18));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (LABELTEXT2 NVARCHAR2(200));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (SUBTYPECD NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (WINDSPEEDCODE NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (RISERUSAGE NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (NAMEOFCOGENERATOR NVARCHAR2(100));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (RATEDAMPS NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (LINKRATING NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (LINKTYPE NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (COMPLEXDEVICEIDC NVARCHAR2(10));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (DEVICEGROUPNAME NVARCHAR2(100));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (DEVICEGROUPTYPE NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (TOTALKVR NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (TOTALKVAR NUMBER(22));

alter table EDGIS.PGE\_SCHEMGUIDTOTAL add (CONVERSIONID VARCHAR2(22));

* 1. Then register the following tables with the GDB (do NOT version them)
     1. EDGIS. PGE\_SCHEMGUIDTOTAL
     2. EDGIS.PGE\_EDSCHEMGUIDTOTAL
  2. Set the Privileges in ArcCatalog for the new tables:
     1. EDGIS.PGE\_SCHEMGUIDTOTAL
     2. EDGIS.PGE\_EDSCHEMGUIDTOTAL
     3. GRANT VIEW and EDIT privledges to:
        1. gisinterface
        2. gis\_interface
        3. gis\_i
        4. sde\_editor
        5. dmsstaging
     4. Grant Read/View only privledges to:
        1. sde\_viewer
  3. We must access the sequence for the first time on the PGE\_EDSCHEMGUIDTOTAL so that the sql will be able to populate it later. This can be done with the following SQL process.
     1. Run the following and record the number:

select registration\_id from sde.table\_registry where table\_name='PGE\_EDSCHEMGUIDTOTAL';

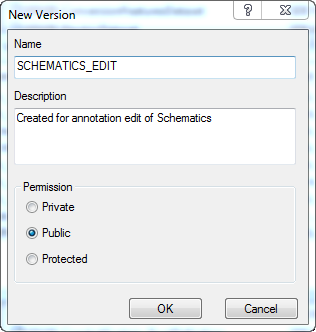
* + 1. Then use that number replacing the ##### below:

select R#####.nextval from dual;

example if 10728 is returned, the sql becomes: select R10728.nextval from dual;

1. Unregister the table PGE\_MODIFIEDMAPS as versioned.

Note: This stand alone table must be unversioned for the synch process of Schematics and EDER to correctly maintain a list of maps that have been changed and need to be updated.

1. Copy the Schematics tables into the database
   1. Copy the changedetection\_tables\_fcs.gdb file geodatabase locally.
   2. Connect the folder in ArcCatalog that it is contained within.
   3. In the target database, delete the following object classes:
      1. EDGIS.PGE\_EDERChangeSetLine
      2. EDGIS.PGE\_EDERChangeSetPoint
      3. EDGIS.PGE\_EDERPostedSession
      4. EDGIS.PGE\_EDERSession0MapGrid
      5. EDGIS.PGE\_EDSCHEMGUIDTOTAL
      6. EDGIS.PGE\_SCHEMCHANGEDGRID
      7. EDGIS.PGE\_SCHEMGUIDTOTAL
      8. EDGIS.PGE\_VERSIONDELETELINE
      9. EDGIS.PGE\_VERSIONDELETEPOINT
   4. Select all object classes in the fgdb
   5. Right click and select Copy
   6. Right click the target database and click paste. Click OK at the prompt to replace existing object classes.
2. Create the SCHEMATICS\_EDIT version
   1. Log into ArcCatalog as EDGIS into the target database
   2. Right click the database and click “Versions…”
   3. Right click SDE.DEFAULT and click “New…”
   4. Match the following screen:  
      
   5. Click OK to create the version

Apply the following configuration properties:

## Configuration

### New Class Model Names

1. Create the following new class model names in the “PGE ED Object Class Model Name” domain:

|  |
| --- |
| ***Model Name*** |
| PGE\_ EDSCHEM\_CHANGEDETECTION |
| PGE\_ EDSCHEM\_VERSIONDELETEPOINT |
| PGE\_EDSCHEM\_VERSIONDELETELINE |

### New Field Model Names

1. Create the following new field model name in the “PGE ED Field Model Name” domain.

|  |
| --- |
| ***Model Name*** |
| PGE\_VERSIONNAME |

### Class Model Name Assignment

1. Assign the following class model names to the following classes using the Model Names tab of the ArcFM Properties Manager:

|  |  |
| --- | --- |
| ***Object Class*** | ***Model Name*** |
| CapacitorBank | PGE\_ EDSCHEM\_CHANGEDETECTION |
| DeviceGroup | PGE\_ EDSCHEM\_CHANGEDETECTION |
| DistBusBar | PGE\_ EDSCHEM\_CHANGEDETECTION |
| DynamicProtectiveDevice | PGE\_ EDSCHEM\_CHANGEDETECTION |
| ElectricStitchPoint | PGE\_ EDSCHEM\_CHANGEDETECTION |
| FaultIndicator | PGE\_ EDSCHEM\_CHANGEDETECTION |
| Fuse | PGE\_ EDSCHEM\_CHANGEDETECTION |
| OpenPoint | PGE\_ EDSCHEM\_CHANGEDETECTION |
| PrimaryGeneration | PGE\_ EDSCHEM\_CHANGEDETECTION |
| PrimaryRiser | PGE\_ EDSCHEM\_CHANGEDETECTION |
| PriOHConductor | PGE\_ EDSCHEM\_CHANGEDETECTION |
| PriUGConductor | PGE\_ EDSCHEM\_CHANGEDETECTION |
| Switch | PGE\_ EDSCHEM\_CHANGEDETECTION |
| Tie | PGE\_ EDSCHEM\_CHANGEDETECTION |
| Transformer | PGE\_ EDSCHEM\_CHANGEDETECTION |
| VoltageRegulator | PGE\_ EDSCHEM\_CHANGEDETECTION |
| PGE\_VERSIONDELETEPOINT | PGE\_ EDSCHEM\_VERSIONDELETEPOINT |
| PGE\_VERSIONDELETELINE | PGE\_ EDSCHEM\_VERSIONDELETELINE |

### Field Model Name Assignment

1. Assign the following field model name to the following fields of the following classes using the Field Model Names tab of the ArcFM Properties Manager:

|  |  |  |
| --- | --- | --- |
| ***Object Class*** | ***Field Name*** | ***Model Name*** |
| CapacitorBank | VERSIONNAME | PGE\_VERSIONNAME |
| DeviceGroup | VERSIONNAME | PGE\_VERSIONNAME |
| DistBusBar | VERSIONNAME | PGE\_VERSIONNAME |
| DynamicProtectiveDevice | VERSIONNAME | PGE\_VERSIONNAME |
| ElectricStitchPoint | VERSIONNAME | PGE\_VERSIONNAME |
| FaultIndicator | VERSIONNAME | PGE\_VERSIONNAME |
| Fuse | VERSIONNAME | PGE\_VERSIONNAME |
| OpenPoint | VERSIONNAME | PGE\_VERSIONNAME |
| PrimaryGeneration | VERSIONNAME | PGE\_VERSIONNAME |
| PrimaryRiser | VERSIONNAME | PGE\_VERSIONNAME |
| PriOHConductor | VERSIONNAME | PGE\_VERSIONNAME |
| PriUGConductor | VERSIONNAME | PGE\_VERSIONNAME |
| Switch | VERSIONNAME | PGE\_VERSIONNAME |
| Tie | VERSIONNAME | PGE\_VERSIONNAME |
| Transformer | VERSIONNAME | PGE\_VERSIONNAME |
| VoltageRegulator | VERSIONNAME | PGE\_VERSIONNAME |

### PGE Record Version AU Assignment

1. Assign the PGE Record Version AU to the following object classes on the following edit events, using the Object Info tab of the ArcFM Properties Manager:

|  |  |  |  |
| --- | --- | --- | --- |
| ***Object Class*** | ***On Create*** | ***On Update*** | ***On Delete*** |
| CapacitorBank | Yes | Yes | Yes |
| DeviceGroup | Yes | Yes | Yes |
| DistBusBar | Yes | Yes | Yes |
| DynamicProtectiveDevice | Yes | Yes | Yes |
| ElectricStitchPoint | Yes | Yes | Yes |
| FaultIndicator | Yes | Yes | Yes |
| Fuse | Yes | Yes | Yes |
| OpenPoint | Yes | Yes | Yes |
| PrimaryGeneration | Yes | Yes | Yes |
| PrimaryRiser | Yes | Yes | Yes |
| PriOHConductor | Yes | Yes | Yes |
| PriUGConductor | Yes | Yes | Yes |
| Switch | Yes | Yes | Yes |
| Tie | Yes | Yes | Yes |
| Transformer | Yes | Yes | Yes |
| VoltageRegulator | Yes | Yes | Yes |

## Data Design, Datamodel Changes

## Field Changes

1. Verify the following fields have been added to their respective feature classes:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***Object Class Name*** | ***Action*** | ***FieldName*** | ***Datatype(Length)*** | ***Domain*** | ***Action*** |
| CapacitorBank | Modify | VersionName | Text(64) |  | Add |
| DeviceGroup | Modify | VersionName | Text(64) |  | Add |
| DynamicProtectiveDevice | Modify | VersionName | Text(64) |  | Add |
| DistBusBar | Modify | VersionName | Text(64) |  | Add |
| ElectricStitchPoint | Modify | VersionName | Text(64) |  | Add |
| FaultIndicator | Modify | VersionName | Text(64) |  | Add |
| Fuse | Modify | VersionName | Text(64) |  | Add |
| OpenPoint | Modify | VersionName | Text(64) |  | Add |
| PrimaryGeneration | Modify | VersionName | Text(64) |  | Add |
| PrimaryRiser | Modify | VersionName | Text(64) |  | Add |
| PriOHConductor | Modify | VersionName | Text(64) |  | Add |
| PriUGConductor | Modify | VersionName | Text(64) |  | Add |
| Switch | Modify | VersionName | Text(64) |  | Add |
| Tie | Modify | VersionName | Text(64) |  | Add |
| Transformer | Modify | VersionName | Text(64) |  | Add |
| VoltageRegulator | Modify | VersionName | Text(64) |  | Add |

### 

### Object Class Changes

1. Verify that the following object classes have been created with the following fields and the following properties:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***FeatureclassName*** | ***PGE\_VERSIONDELETEPOINT*** | | | | |
| ***FieldName*** |  | ***Nullable*** | ***Datatype(Length)*** | ***Domain*** | ***Comment*** |
| OBJECTID |  | No | Long Integer |  | Automatic |
| FEATURECLASSID |  | No | Long Integer |  |  |
| FEATUREGUID |  | No | Guid |  |  |
| VERSIONNAME |  | No | Text(64) |  | Index |
| DATEDELETED |  | No | Date |  |  |
| CIRCUITID |  | Yes | Text(9) |  |  |
| INSTALLJOBNUMBER |  | Yes | Text(14) |  |  |
| SHAPE |  | No | Geometry |  | Point |

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| ***FeatureclassName*** | ***PGE\_VERSIONDELETELINE*** | | | | |
| ***FieldName*** |  | ***Nullable*** | ***Datatype(Length)*** | ***Domain*** | ***Comment*** |
| OBJECTID |  | No | Long Integer |  | Automatic |
| FEATURECLASSID |  | No | Long Integer |  |  |
| FEATUREGUID |  | No | Guid |  |  |
| VERSIONNAME |  | No | Text(64) |  | Index |
| DATEDELETED |  | No | Date |  |  |
| CIRCUITID |  | Yes | Text(9) |  |  |
| INSTALLJOBNUMBER |  | Yes | Text(14) |  |  |
| SHAPE |  | No | Geometry |  | Line |

## Data Changes

Rows need to be inserted into the ***GDBM\_No\_Reconcile\_Versions*** table.

1) Stop GDBM (if it is running)

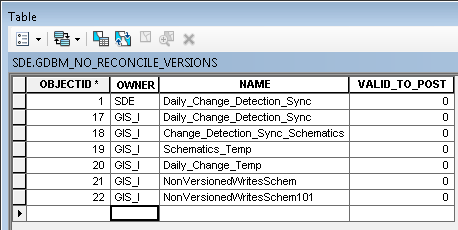
2) Open ArcMap Connect to the geodatabase as sde

3) Drag SDE.GDBM\_No\_Reconcile\_Versions table into ArcMap

4) Editor > Options. Uncheck the “Edit a version of the database…” checkbox. Click OK

5) Start Editing

6) Amend the data as per this picture (don’t worry about OBJECTID)



***7) Save Edits***

***8) Restart GDBM***