



Facility Registry Service (FRS)

GIS Data Integration

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Prepared for: ENVIRONMENTAL PROTECTION AGENCY

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REVISION HISTORY

Version Number	Date	Description of Changes
1.0	04/08/2013	Initial creation.

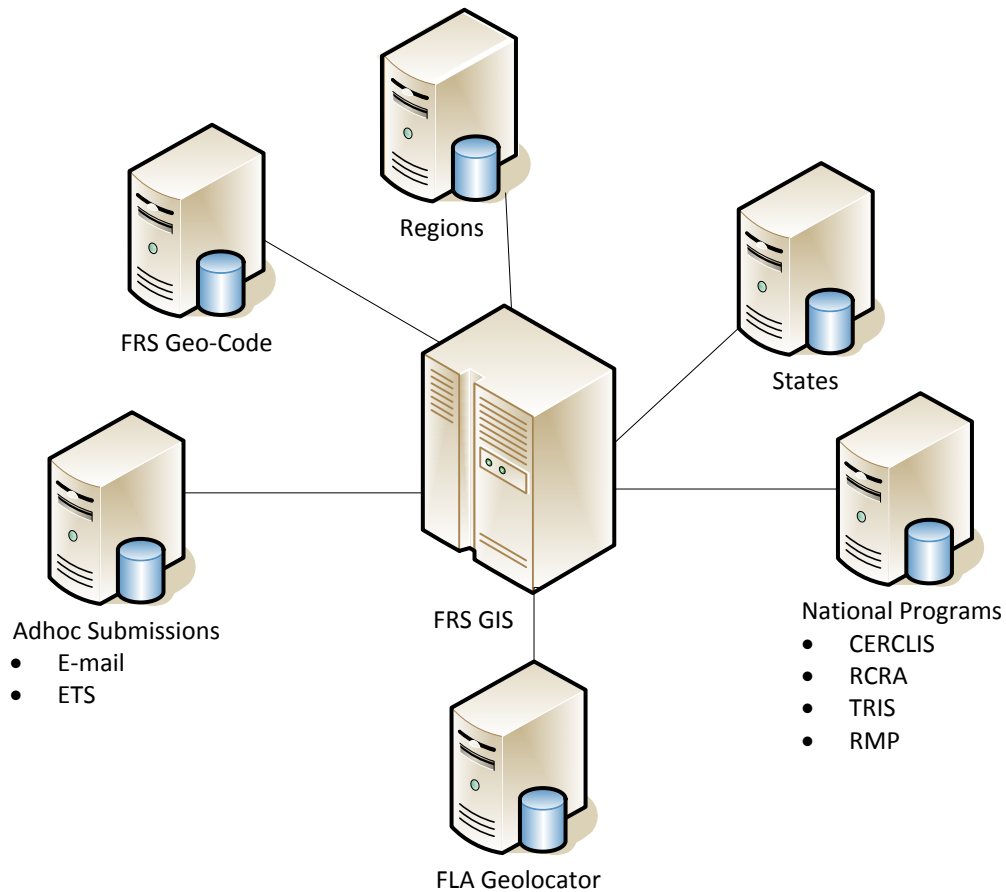
A. DATA LOAD INTO THE GEO PGM FACILITY COORDINATES TABLE

The GIS data from different sources gets loaded to the GEO_PGM_FACILITY_COORDINATES table and here is the structure of it.

Column Name	Data Type	Nullable?
OBJECTID	NUMBER(12,0)	No
PGM_SYS_ACRNM	VARCHAR2(15 BYTE)	No
PGM_SYS_ID	VARCHAR2(30 BYTE)	No
SUB_ID	VARCHAR2(30 BYTE)	Yes
LATITUDE	NUMBER(9,6)	No
LONGITUDE	NUMBER(10,6)	No
LATITUDE83	NUMBER(9,6)	Yes
LONGITUDE83	NUMBER(10,6)	Yes
COLLECT_MTH_CODE	VARCHAR2(3 BYTE)	Yes
SCALE	NUMBER(10,0)	Yes
ACCURACY_VALUE	NUMBER(6,0)	Yes
COLLECTION_DATE	DATE	Yes
REF_POINT_CODE	VARCHAR2(3 BYTE)	Yes
HDATUM_CODE	VARCHAR2(3 BYTE)	Yes
SOURCE_CODE	VARCHAR2(3 BYTE)	Yes
VMETHOD_CODE	VARCHAR2(3 BYTE)	Yes
VDATUM_CODE	VARCHAR2(3 BYTE)	Yes
VACCURACY	NUMBER(7,0)	Yes
VERTICAL_MEASURE	NUMBER(10,0)	Yes
GEOMETRIC_TYPE_CODE	VARCHAR2(3 BYTE)	Yes
SUB_TYPE_CODE	VARCHAR2(4 BYTE)	Yes
SOURCE	VARCHAR2(30 BYTE)	Yes
COMMENT_TEXT	VARCHAR2(150 BYTE)	Yes
SHAPE	SDO_GEOMETRY	Yes
COMPLIANT_FLAG	VARCHAR2(1 BYTE)	Yes
ACCURACY_SCORE	NUMBER(17,0)	Yes

Column Name	Data Type	Nullable?
CONVEYOR	VARCHAR2(25 BYTE)	No
USER_ID	VARCHAR2(15 BYTE)	No
TIMESTAMP	DATE	No
SUP_ENTITY_DESC	VARCHAR2(200 BYTE)	Yes
OBJECTID	NUMBER(12,0)	No
PGM_SYS_ACRNM	VARCHAR2(15 BYTE)	No

GIS Data into FRS



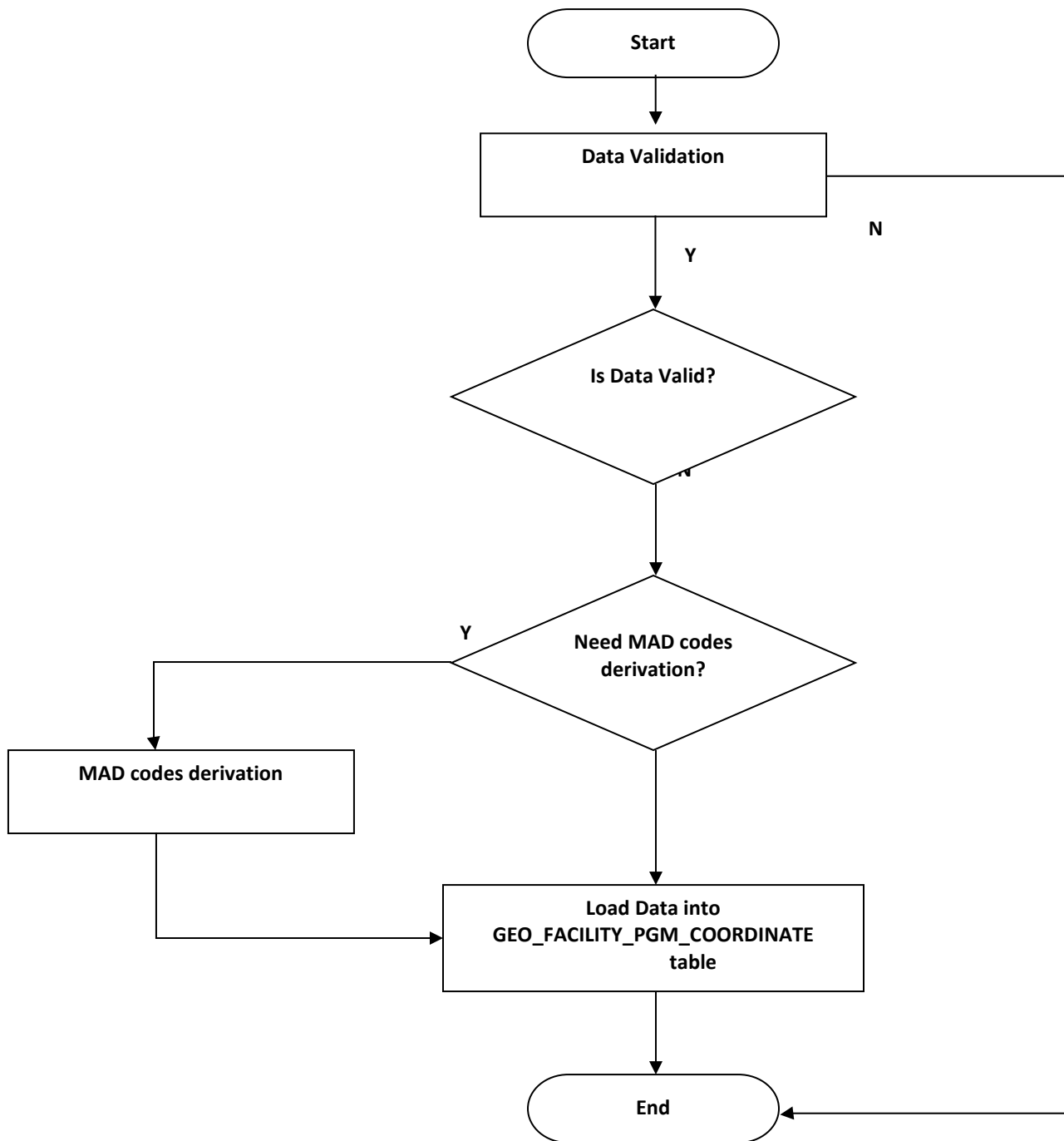
The GIS data integration being done using the Oracle SQL and PL/SQL scripts. And the integration includes data validation and derivation of the MAD data codes.

Validation:

During the integration, the data will be validated to make sure that the required data is provided by the sources. If not, the records will be rejected. Another validation is to make sure that the values for the Latitude and Longitude columns is not equal to ZERO. The county and zip code boundary validation will be done during the Representative Point pick process.

Derivation:

Some of the MAD data codes are derived if the sources provide the MAD descriptions. For ex. Some of the states provide Horizontal Datum Description and FRS derives the associated HDATUM_CODE using the GIS Reference tables and loads the data into the table.



A unique number through a sequence gets created for each data record and inserted into OBJECTID column during the data load. After the data gets loaded to the table, the Lat/Longs will be converted to NAD83 Datum and the columns Shape, Latitude83 and Longitude83 gets updated.