## Data Set Design and Database Build Project Management

The QGIS software, when viewed as a open source ‘system’ has a number of advantages. It includes a python coding module and a SQL database module (postgresSQL) allowing you to connect to databases. Moreover, QGIS, because of the postgresSQL capability it comes with, will allow the development of the separate database to the project and interact with the FABdb completely seamlessly.

Skills with the database creation and management, and the data entry are on hand (although out of practice at writing).

Ongoing management of the data and transposing the data into new datasets will be mitigated by the use of the underlying SQL relational database core. This is open source, and a standard that is accepted across modern technology systems worldwide, and will remain so indefinitely.

### Data Model

The datatypes for this model will start with the most basic forms. As the design reaches more completeness, the specific

* Strings - Store free-form text data, of which there will be some elements in this database.
* Integer - Store whole numbers, there are many of these in this project.
* Real - Store decimal numbers.
* Date - To store supervisors birthdays so one is unlikely to forget… Oh and of course project date values.
* Boolean - Traditional simple true/false values.

### Database Tables

### 1: MapAerialSources

|  |  |  |  |
| --- | --- | --- | --- |
|  | MapAerialSources |  |  |
| PK | MapAerialSourcelD |  |  |
|  | TitleMapAerialSource |  |  |
|  | TypeMapAerialOther |  |  |
|  | MapDate |  |  |
|  | MapTime |  |  |
|  | ExtentOrginAreaSW |  |  |
|  | ExtentOriginAreaNW |  |  |
|  | ExtentLimitAreaNE |  |  |
|  | ExtentlimitAreaSE |  |  |
|  | FileNameSource |  |  |
|  | FileNameMapRasterTif |  |  |
|  | FileNameMapRasterTifOverlay |  |  |

### 2: Point\_Location

Point\_Location

PK Point ID

FK MapAerialSourcelD

FK PrimarySourcelD

FK LocationTypelD

PointVectorLocationX

PointVectorLocationY

OldMap\_Raster\_CoordX

OldMap\_Raster\_CoordY

FK PrimarySourcelD

TimeStart

DateEnd

TimeEnd

DateStart

### 3: PolyGon

PolylineMovements

PK PolylinelD

MovementType

FK MapAerialSourcelD

FK MaterielTypelID

FK PrimarySourcelD

FK LocationTypeOrigin

VerticeOriginX

VerticeOriginY

VerticeDestinationX

VerticeDestination Y

FK Location Type Destination

Vertice\_0

Vertice\_1

Vertice ...

Vertice\_n

DateStart

TimeStart

DateEnd

TimeEnd

### 4: LocationsOriginDestination

### 5: LocationType

### 6: Materiels

### 7: FieldArtilleryBattery

### 8: PrimarySource

### 9: PrimarySourceType

### 10: Campaigns

### 11: Units

### 12: CodeNames

### 13: Personnel

### 14: GunType

### 15: Ammunition

### 16: Transporter