Bus Routes (there are 33 buses but 66 bus routes)

|  |  |  |  |
| --- | --- | --- | --- |
| Columns | Type | Size | Number of bits |
| Bus Route ID | Integer | Up to 66 | 7 |
| Name | String | 20 chars (ASCII) | 160 |
| Description | String | 200 chars (ASCII) | 1600 |
| Number of bits for row | | | 1767 |
| Total (2 sf.) | | | 120000 |

Bus Stops (there are about 2000 bus stops)

|  |  |  |  |
| --- | --- | --- | --- |
| Columns | Type | Size | Number of bits |
| Bus Stop ID | Integer | Up to 2000 | 11 |
| Name | String | 80 chars (ASCII) | 640 |
| Latitude | Integer | Between -9x109 and 9x109 | 50 |
| Longitude | Integer | Between -1.8x1010 and 1.8x1010 | 50 |
| Number of bits for each row | | | 751 |
| Total(2sf.) | | | 1500000 |

Day Categories (Mondays to Fridays, Saturdays, and Sundays and Bank Holidays)

|  |  |  |  |
| --- | --- | --- | --- |
| Columns | Type | Size | Number of bits |
| Day Category ID | Integer | Up to 3 | 2 |
| Description | String | 30 chars (ASCII) | 240 |
| Number of bits for each row | | | 242 |
| Total (2sf.) | | | 730 |

Timetable (70 bus stops on average for each bus route, 3 day categories, 66 routes, on average 21 bus courses every day for each bus route, therefore about 300000 rows)

|  |  |  |  |
| --- | --- | --- | --- |
| Columns | Type | Size | Number of bits |
| Bus Route ID | Integer | Up to 66 | 7 |
| Bus Course ID | Integer | Up to 99 | 7 |
| Bus Stop ID | Integer | Up to 2000 | 11 |
| Time | Time (HH:MM) | 00-24:00-59 | 11 |
| Day Category | Integer | Up to 3 | 2 |
| Number of bits for each row | | | 38 |
| Total (3sf) | | | 11400000 |

All together there would be 13000000 bits which means about 1.6 MByte of data for all the bus information