

DATA SCANNER FOR ANDROID

Data Scanner provides developers with the ability to program against the data stored in the scanner. This is accomplished in two ways. One is by providing .NET developers with a Class Library. This library allows .NET developers to download and process the export files created by Data Scanner. There is a separate document explaining how to use .NET to accomplish this. This document is going to discuss how to process the scans right on the device where Data Scanner is installed.

DataScannerProvider

The core element in programming against Data Scanner is the ScannerContentProvider Content Provider. This Content Provider provides developers with access to the data stored Data Scanner's underlying SQLite database. Any Android developer with experience working with the ContentProvider and ContentResolver classes will have no problem working with the data stored by *Data Scanner*.

DataScannerProvider Organization

The DataScannerProvider contains only one table. That table contains one record for each scan.

Columns in data_scans table

| Column Name | Use | Notes |
|-------------|--|---|
| Bar_Code | This is the column that stores the actual bar code associated with that particular record. | |
| Scan_Date | This is the date and time that the scan was added. | This is stored as a Long data type and is the timeinmillis of the time the scan was saved. It is in UTC time. |
| Code_Long | The Longitude of the location where the scan was added. | |
| Code_Lat | The Latitude of the location where the scan was added. | |
| _id | An internal autonumber generated for each scan record. | The Primary Key. This will not generally be needed by the developer. |

Retrieving Data From DataScannerProvider

The DataScannerProvider allows developers to retrieve information on the scans in the database. The URI for the DataScannerProvider is *content://com.foster.datascanner/data_scans*. The DataScannerProvider provides a *query* method. The method returns a Cursor object. The *query* method accepts the following arguments.

| Argument | Data Type | Description |
|---------------|-----------|--|
| Uri | Uri | The uri of DataScannerProvider: content://com.foster.datascanner/data_scans |
| projection | String[] | The list of columns to return. For a list of columns see above. |
| selection | String | The filter (where) clause for the query |
| selectionArgs | String[] | The list of arguments to replace any ? placeholders in the selection argument |
| sortOrder | String | A string listing the sorting columns for the result set. |

Deleting Data From DataScannerProvider

DataScannerProvider allows users to delete scan records from the database. Note that it is not possible to delete selected records from the database. DataScannerProvider only allows for deleting **all** records from the database. As such, the only argument required for the *delete* method is the uri. Recall that the uri for DataScannerContentProvider is content://com.foster.datascanner/data_scans. Be careful as there is no second chance once the records have been cleared from the database. The delete method accepts the following arguments.

| Argument | Data Type | Description |
|---------------|-----------|--|
| Uri | Uri | The uri of DataScannerProvider: content://com.foster.datascanner/data_scans |
| selection | String | The filter (where) clause for the query |
| selectionArgs | String[] | The list of arguments to replace any ? placeholders in the selection argument |

Note: Even though the delete method will accept a selection and selectionArgs, the delete method will delete **all** scans in the database, not just the selected ones. Therefore, the selection and selectionArgs arguments are useless. They are only there as a part of the overridden method.