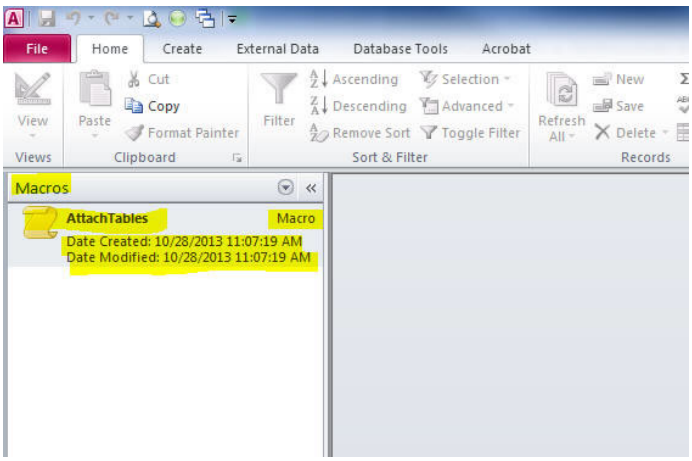
SIMSCounty.accdb - Instructions

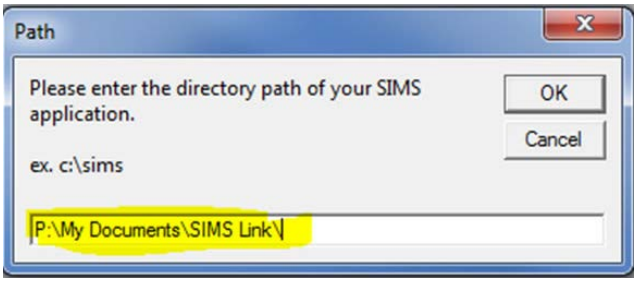
The self-extracting archive files identified by Illinois county names contain the Microsoft Access® databases designated "Countyna.accdb" ("Countyna" = first eight characters of the County name) and "SIMSLink.accdb". Countyna.accdb contains the information, extracted from the Illinois Structure Information System (ISIS), for Local Agency structures located in each county. It is intended to operate as a read-only informational database. The data should only be revised through the established ISIS procedures as described in the IDOT Structure Information and Procedure Manual. Revisions to the ISIS data is loaded in the SIMSCounty database files on a weekly basis. SIMSLink.accdb, on the other hand, is a working database file in which custom queries, reports and forms based on the ISIS data from Countyna.accdb may be created.

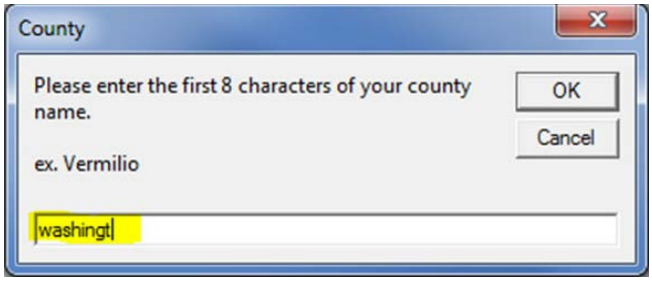
Linking SIMSLINK.accdb To COUNTYNA.accdb:

After you have extracted the above named files and placed them in a folder, you should open SIMSLink.accdb in MS Access (2007 or greater). When the "SIMSLink: Database" window opens, select the Macros tab, then doubleclick the "AttachTables" macro.



Provide the requested information in the two dialogue boxes.



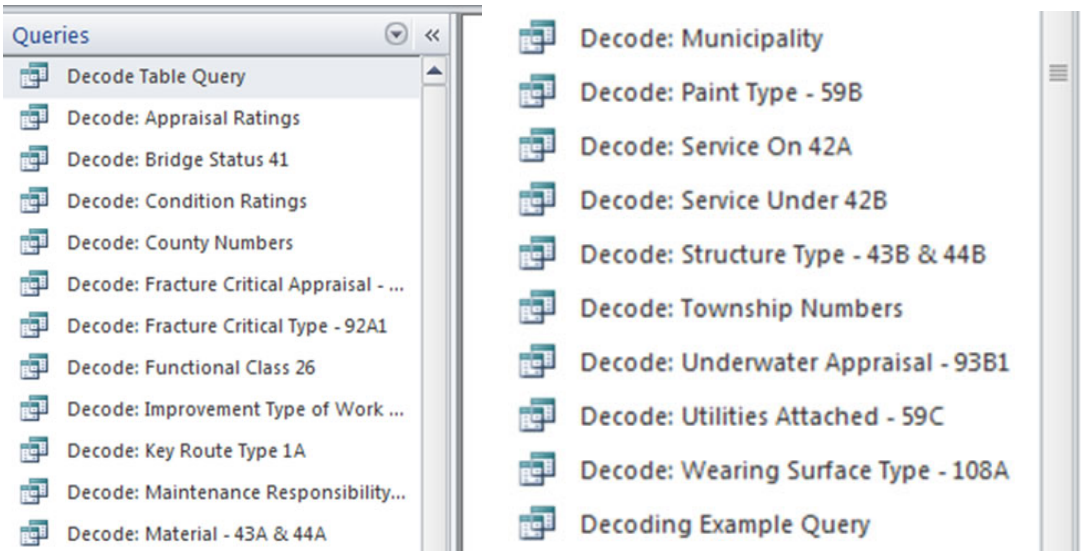


This procedure allows you to use SIMSLink.accdb as a working file in which to create custom queries, reports and forms based on the ISIS data that is available in the Countyna.accdb database. This has been done that when you bring in a new Countyna.accdb file (available weekly), your custom queries, reports and forms will be unaffected.

Included are some queries, a report and a substructure inventory table and form in SIMSLink that you may use, examine, revise, etc. as you wish.

There are several "Decode" queries that you can use to add to your queries to output the description for codes used in ISIS. For example, instead of just outputting a code "4" for the Main Span Material of a structure, by using the “Decode: Material – 43A & 44A” Query in your custom queries you can display "STEEL CONTINUOUS" which is the description for a "4" code. An example of the use of Decode Queries is in the query called "Decoding Example Query" included in SIMSLink.

(continued on next page…)



A few things to keep in mind when doing queries on the ISIS data:

- You should normally have a field called "KRLinkOn" with criteria set to "Y" in your queries. (This insures that all the information output in a query is for structures carrying a motor vehicle road. While structures carrying railroads, etc. over roads are included in the database, only those carrying a road require NBIS inspection or may be replaced using BRRP or TBP funds.)

- When a query includes a table that may have more than one record per structure (i.e. - Const Reconstruction, Fracture Critical..., Inspection Appraisals, Key Route..., Microfilm History, Scour Critical Inspections, Underwater Inspections) a field called "SequenceNbr" may need to be used. “SequenceNbr” coded as "1" indicates the most recent occurrence, "2" just prior to most recent, and so on. For example: If you want information for a structure related only to the most recent NBIS inspection and not all of the previous inspections performed, the query will include "SequenceNbr" as one of the query fields and set its "Criteria" as "1". (Note: A variation on the usual 1-2-3-… sequencing is in the Construction / Reconstruction information. The original construction record always has SequenceNbr = "0" (zero) and the subsequent Reconstruction records are numbered from "1" (most recent). Minor maintenance (code "M") records are numbered from "51".)

- Be careful of linked tables where some of the records of one are not matched in the other. Access reads the missing record as a "null" and, depending how you have the links configured, may not display any data. Sometimes you can get around this by setting the criteria for a field to "Is Null" or "Is Not Null".

Query Tips for Sims - County

- Important fields for record selection criteria in SIMS-County queries.

SIMS Field Name	ISIS Item #	SIMS Table	Description
KRLinkOn	12	All	Code "Y" indicates that a road is carried on the bridge and that the road is linked in the Illinois Roadway Information System.
KRLinkUn	12	All	Code "Y" indicates that a road is carried under the bridge and that the road is linked in the Illinois Roadway Information System.
Status	41	ISIS Master ISIS Summary	Field operational status of bridge. e.g., Code "2" indicates weight limit posting in place and code "9" is for bridges not yet built, etc.
AASHTOLength	112	ISIS Master	Bridges 20.0' or less that carry a road are not subject to

		ISIS Summary	the NBIS.
ReportingAgency	22A	ISIS Master ISIS Summary	Indicates type of agency responsible for reporting ISIS data to IDOT. e.g., State reported structures = "1", County reported structures = "3".
MainStrType	43B	ISIS Master ISIS Summary	2-digit ID # for the structural type of a bridge. Code "26" (Low Water Crossing) structures, and certain other types, should normally be excluded in queries since they are not subject to the NBIS.
SequenceNBR	N/A	Tables w/2 or more records per bridge*	Indicates the historical sequence of NBIS inspections, etc., with the most recent coded "1".
MaintRespA & MaintRespB	21A & 21B	ISIS Master ISIS Summary	Indicates the types of agencies responsible for the maintenance of a structure.
MaintCountyNumber	3B	ISIS Master ISIS Summary	3-digit ID # indicating the county where the agency with primary maintenance responsibility is located.
MunicipalityCodeOn or ...Under	4	Key Route On or …Under ISIS Summary	4-digit ID # for the municipality where the road on or under the structure is located. (Not related to bridge maintenance.)
MaintTwspCode	3B1	ISIS Master ISIS Summary	For township bridges, 2-digit ID # for township responsible for bridge maintenance.

* *Tables that may have 2 or more records per bridge: Const Reconstruction, Fracture Critical Inspections, Fracture Critical Members, Inspection Appraisals, Key Route On, Key Route Under, Microfilm History, Scour Critical Inspections, Underwater Inspections.*

Note: For detailed descriptions of fields refer to the IDOT Structure Information and Procedure Manual.

If the Criteria box in the query design for the field "KRLinkOn" is not set to "Y", your query will generate records for any structures that may be in your county carrying railroads, bikepaths, etc., in addition to bridges carrying roads. These structures do not require NBIS inspections.

The field "SequenceNbr" will usually be needed in queries that include tables that may have more than one record per structure. For example, in the table "Inspection Appraisals", SequenceNbr is 1 for the most recent inspection, 2 for the inspection previous to "1", 3 for the one previous to "2", etc. The SequenceNbr field in Construction / Reconstruction information employs a slightly different coding scheme. The Original Construction record (code "O") always has SequenceNbr = "0" (zero), Reconstruction (code "R") records are numbered in descending date order from "1" to "50" and minor maintenance (code "M") records are numbered by descending date beginning with "51".

Care must be exercised when performing queries referring to multiple tables where some of the records of one are not matched in the other. When the tables are joined in the query, give special attention to proper configuration of the join properties. Example: A query is based on the ISIS Master and Inspection Appraisals tables and it is desired to output data for bridges not yet inspected (i.e. no Inspection Appraisals record exists). Use the following Join Property- "*Include ALL records from 'ISIS Master' and only those records from 'Inspection Appraisals' where the joined fields are equal.*" The link between the tables will be graphically represented by a line with and arrow head pointing to the Inspection Appraisals table box.

To simplify querying in SIMS-County, the *ISIS Summary State And Local* table has been provided. This table contains, in one record per bridge, data from the ISIS Master, Key Route, Construction and other tables including only the most recent inspection and reconstruction information. The one record per structure format simplifies querying by making table joins unnecessary.