



How to Open and Read the Provider of Service Files

The Research Data Assistance Center (ResDAC) is a CMS contractor that provides free assistance to academic and non-profit researchers interested in using Medicare and/or Medicaid data for their research. ResDAC is staffed by a consortium of epidemiologists, public health specialists, health services researchers, biostatisticians, and health informatics specialists from the University of Minnesota.

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Overview

There are 18 provider types included in two separate text files with each Provider of Service (POS) request, referred to as the POS file. The POS file contains information on institutional facilities and selected free-standing facilities. The DVD includes two files: one named "OTHER" that includes information on all providers other than clinical laboratories, and another named "CLIA" which includes information on clinical laboratories. The clinical laboratories are in a separate file because there are so many such providers. All files are plain text. They can be opened using software such as Access, or SPSS, or SAS.

Straightforward opening of the CLIA laboratory file in Access or Excel is possible because there is only one provider type; thus the format is the same for all records. However it is a somewhat painstaking process because the fields must be manually declared or delimited according to the record layout (we say more about the record layout later in this Brief).

Opening the OTHER file for all other provider types using Access is less straightforward, because the record layouts in "OTHER" vary with the type of provider. A program in Access, SPSS or SAS or some other programming language is highly recommended to accommodate the different record layouts.

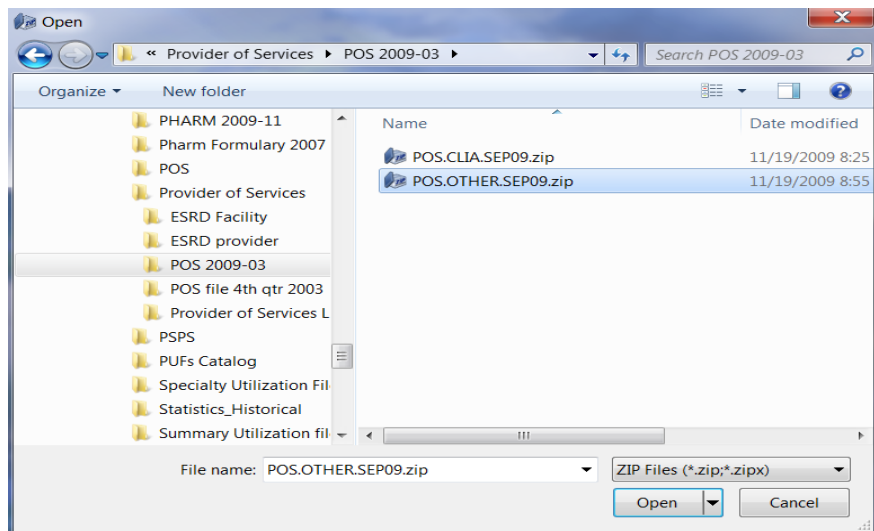
It is possible to open both CLIA and OTHER in a text editor such as TEXTPAD for viewing, but neither file will open immediately because of their size; be prepared to wait as TEXTPAD reads in the file to display it. Opening CLIA and OTHER in a word processor such as Microsoft Word is not advisable, both because of the size of the files, and the formatting of text that word processing programs typically deploy.

Getting Started

Unzip the two data files. The files are compressed, zipped files, and can be opened using PKReader. The PKReader is included with the data. If you don't have PKReader you will need to install it before proceeding. Double-click the PKReader icon, and click on "Select archives to Extract:"



Browse to the location of the files you want to decompress:



After the file is extracted, view the log to see to the location of the decompressed data file.

- **TIP:** Windows 2007/Vista does not require an un-zipper. The file will decompress via a brief menu simply by clicking on the zip file (e.g., POS.OTHER.SEP09.zip).

Provider Of Service File Characteristics and Format

The provider of service files are fixed format text files. The document RLOUT_MMMYY.txt contains the record layout for each type of provider and gives the start and end column locations for each field. MMMYY is the month and year of the data. For example, RLOUT_SEP09.txt is September 2009. RLOUT_SEP09.txt can be

opened in any word processor (such as Microsoft Word). Unlike the data files, when opening the record layout document it is helpful to use a word processor because word processors offer features such as changing the font size and adjusting the left and right margins to be as narrow as possible to avoid "wrap-around" of lines which make the document difficult to read. Changing the orientation of the document to landscape may also be useful.

The record layout changes according to the provider type. For providers other than laboratories, there are 18 provider types:

- 01=HOSPITAL
- 02=SNF (DUALY CERTIFIED)
- 03=SNF/NF (DISTINCT PART)
- 04=SKILLED NURSING FACILITIES
- 05=HOME HEALTH AGENCIES
- 07=PORTABLE X-RAY SUPPLIERS
- 08=OUTPATIENT PHYSICAL THERAPY/SPEECH PATHOLOGY
- 09=END STAGE RENAL DISEASE FACILITIES
- 10=NURSING FACILITIES
- 11=INTERMEDIATE CARE FACILITY-MENTALLY RETARDED
- 12=RURAL HEALTH CLINICS
- 13=PHYSICAL THERAPISTS IN PRIVATE PRACTICE
- 14=COMPREHENSIVE OUTPATIENT REHAB FACILITIES
- 15=AMBULATORY SURGICAL CENTERS
- 16=HOSPICES
- 17=ORGAN PROCUREMENT ORGANIZATIONS
- 19=COMMUNITY MENTAL HEALTH CENTERS
- 21=FEDERALLY QUALIFIED HEALTH CENTERS

For clinical laboratories, there is one provider type:

- 22=LABORATORIES

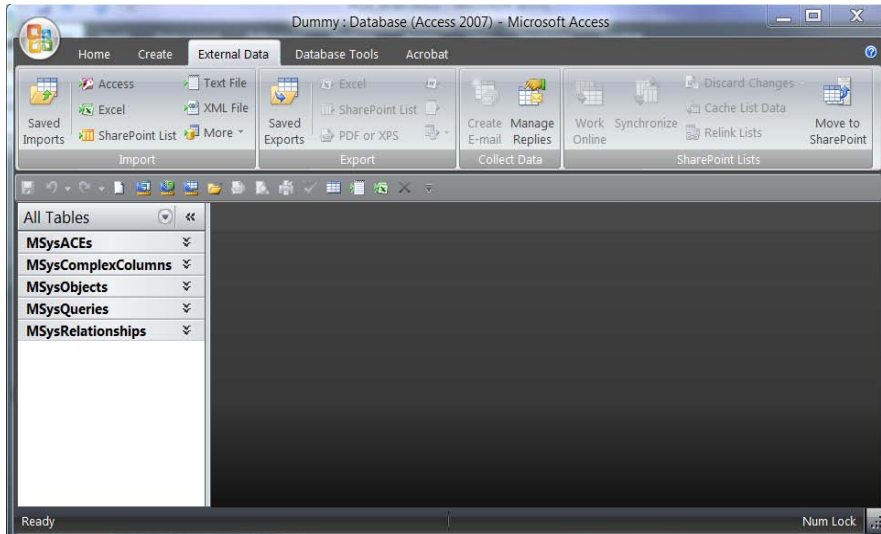
Opening the Clinical Laboratory File Using Access

Open Access 2007

Create a new blank database

In the "External Data" tab go to Import

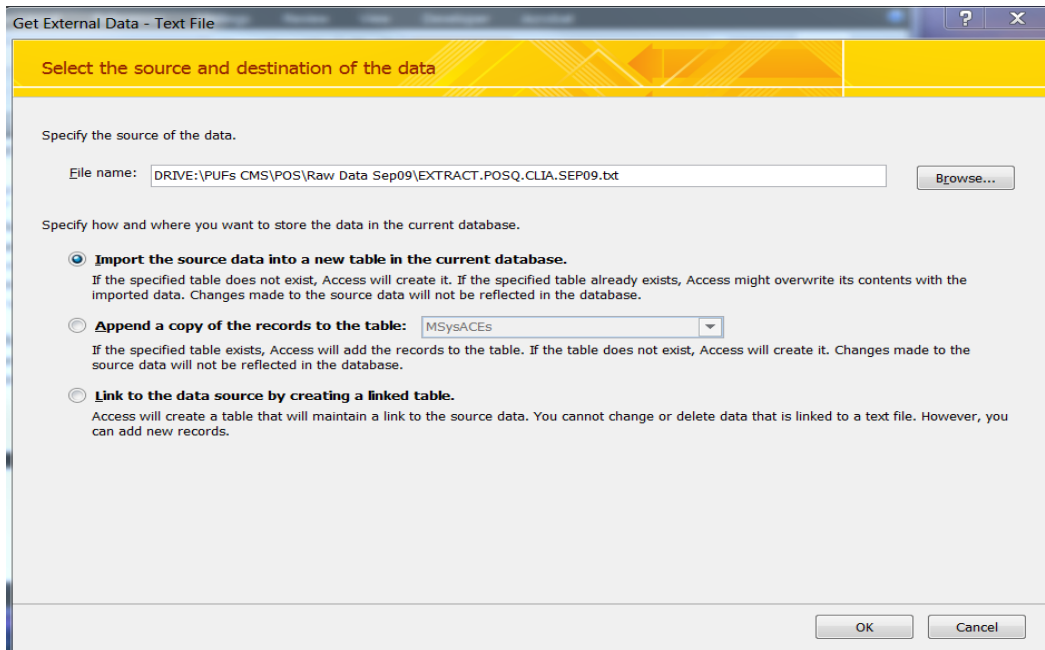
Select Text File



- **TIP:** Access 2007 allows import of text files but does not find the file without a "txt" extension. To take advantage of the file extension search we renamed EXTRACT.POSQ.CLIA.SEP09 to EXTRACT.POSQ.CLIA.SEP09.txt

Browse to the text file EXTRACT.POSQ.CLIA.SEP09.txt

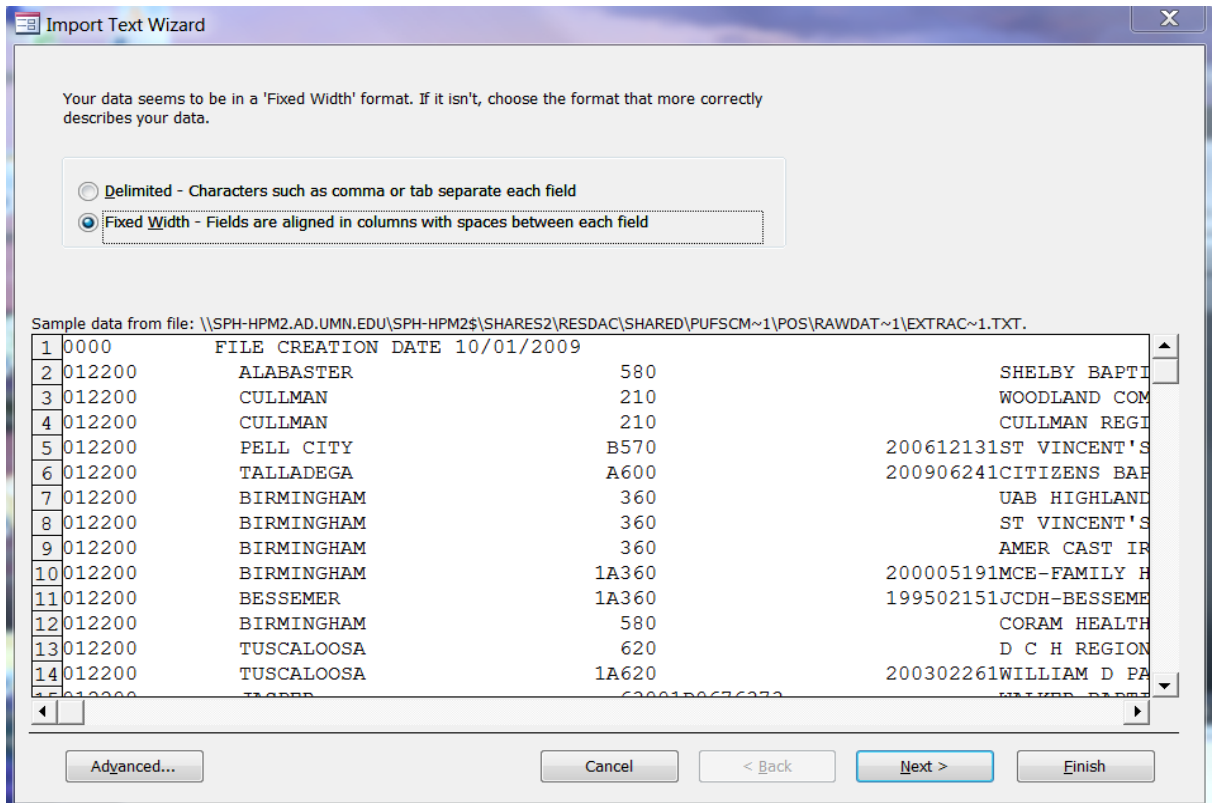
Choose "Import the source data into a new table in the current database."



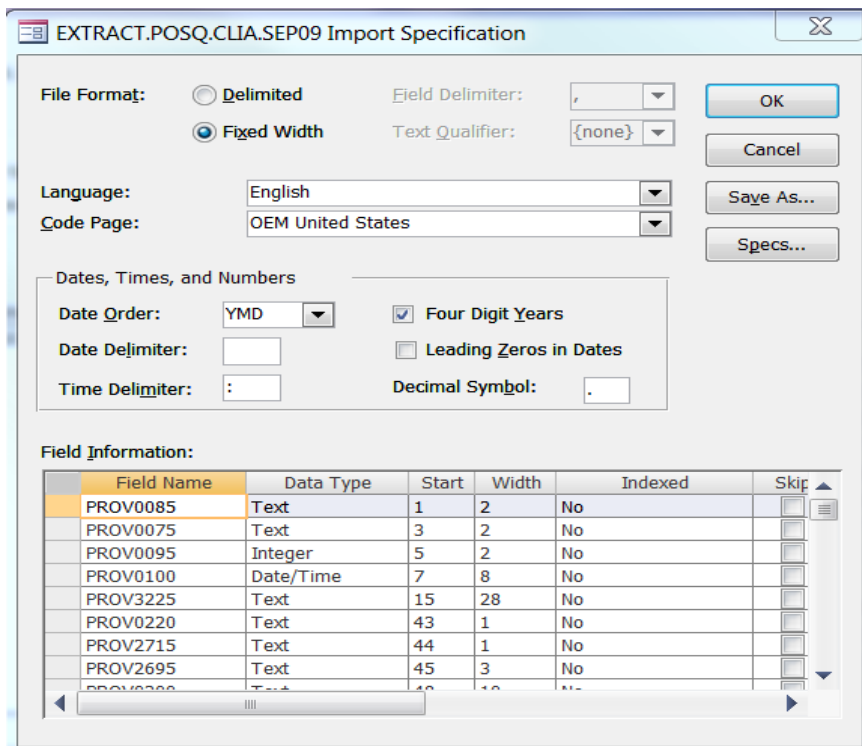
Click "OK"

- **TIP:** The first line of data is information about the file. That line will not affect the import process, and can easily be deleted once the data is imported into the database table.

Select "Fixed Width"



Click on "Advanced"
 A specification window will appear.



Scroll to the **last section** of the Record Layout and follow the layout for provider type 22 (clinical laboratories) given in RLOUT_SEP09.txt:

First, under “Field Name”, enter the SAS variable name. Next, choose the “Data Type”, “Start” position, and “Width” (called the “Length” in the Record Layout) for all of the variables. Under “Data Type”, “text” can be chosen for character variables (marked by a “C” in the Record Layout), “Integer” can be chosen for the numeric variables (marked by a “N” in the Record Layout), and “Date” can be chosen for date variables, along with the format of the date. Dates will be marked with an “N,” so be sure to read the variable name to identify variables that are dates. Integers less than 5 digits can be designated “Integer,” whereas integers 5 digits or longer must be designated as “Long Integer.” Long Integer does not accommodate decimal points. Fields that contain real numbers can be designated “Double.” Note that fields such as “Number of Full-Time Equivalent Certified Registered Nurse Anesthetists (CRNA) Employed by a Hospital,” have no decimal points coded in the data. For example, the value 0000105 has an implied decimal point between the sixth and seventh digits (indicated by 7.2 in the record layout). For the value 0000105, the actual number FTE nurses is 10.5, not 105. Decimal points may be assigned to fields of this type in the “Dataset” tab after the data have been imported.

The specification you type can be saved by clicking on the “Save As” button in this window. For subsequent tables, this specification can be retrieved and applied by clicking on the “Specs” button in the Advanced specification Window.

TIP: The record layout for clinical laboratory providers has large gaps between some variables. These columns contain no data of interest for the clinical laboratory provider file and must be “skipped”. However, as gaps cannot be present, the variables must still be accounted for through the creation of “dummy” variables. The maximum length of text variables is 255. The table below shows how the import specification will look when the “dummy” variables are entered. The gaps begin on page 14 of the provider type 22 section of the Record Layout.

Field Name	Data Type	Start	Width	Indexed	Skip
SSAMSASZ	Text	273	1	No	
DUMMY1	Text	274	89	No	X
PROV0450	Text	363	8	No	
DUMMY2	Text	371	7	No	X
PROV0485	Text	378	4	No	
DUMMY3	Text	382	211	No	X
PROV2890	Text	593	2	No	
DUMMY4	Text	595	255	No	X
DUMMY5	Text	850	255	No	X
DUMMY6	Text	1105	255	No	X
DUMMY7	Text	1360	255	No	X
DUMMY8	Text	1615	207	No	X
PROV4205	Text	1822	1	No	

When you are done entering all the fields click on “Finish” to complete importing the clinical laboratory data into a table. This may take a few minutes.

Opening the "OTHER" Provider File for Providers Other Than Clinical Labs, Using Access

While time consuming, it is possible to open the "OTHER" Provider File in Access using a similar method described above for the "CLIA" file. The "OTHER" Provider File cannot be opened in a single Access database given the number of variables (fields) in the file - the maximum in Access is 255. We recommend that you import one provider type at a time. It is possible to import multiple providers with different record layouts, but it requires the use of filters plus the selection of fields on the basis of provider type, whereas importing one provider at a time requires only filtering.

To begin importing the "OTHER" file, follow the instructions provided for the "CLIA" file above using the EXTRACT.POSQ.OTHER.SEP09 file instead. Likewise, when entering information into the import specification window you will use the record layout that corresponds to your provider of interest in the RLOUT_MMMYY.txt file. As with the "CLIA" file, you will create dummy variables for gaps that occur in the record layout. These gaps will differ across provider types and will therefore be different than those listed in the table provided above for the "CLIA" file. The dummy variables will need to be skipped by clicking the "Skip" box in the import specification window.

Once you have completed importing the data, the last step will be to limit the data to the provider of interest. The filter function in Access allows you to do this. At the top of the table, click on the drop down menu for "PROV0075" (CATEGORY OF PROVIDER/SUPPLIER). Only select the box for the value that corresponds to your provider of interest (e.g. 01 = hospitals). Remember that some variables occur across provider types. If you do not filter by provider type, you may include data that does not apply to your provider of interest.

Opening the "OTHER" Provider File for Providers Other Than Clinical Labs, Using SAS

This example uses SAS to read in two different provider types (the field named PROV0075)—Hospital and Home Health Agency, and create two permanent SAS datasets.

```
Libname OTHER 'Drive:\FolderName';  
FileName OTHERDATA 'Drive:\FolderName\FileName.extension' LRECL=2134  
RECFM=V;
```

```
Data OTHER.Hospital OTHER.HHA;  
  Infile OTHERDATA;  
  Input PROV0075 3-4 @;  
  IF PROV0075 EQ 1 then  
    Input @1  PROV0085 $2.  
      @5  PROV0095 2.  
      @7  PROV0100 $8.  
      ;
```

```

@273 SSAMSACD $1.
@274 PROV0000 $8.
@282 PROV0005 $8.
@290 PROV0010 $1.
:
@2039 PROV5800 $10.;
ELSE IF PROV0075 EQ 5 then
Input @1 PROV0085 $2.
@5 PROV0095 2.
@7 PROV0100 $8.
:
@273 SSAMSACD $1.
@290 PROV0010 $1.
:
@1720 PROV2200 $1.;

```

```

IF PROV0075 = 1 then OUTPUT OTHER.Hospital;
IF PROV0075 = 5 then OUTPUT OTHER.HHA;
RUN;

```

- **TIP:** The two provider types have some fields in common. Fields that are common to more than one provider type have the same field name in all provider type files, and occupy the same column positions in the file.

The program above creates two separate datasets—one for hospital and one for home health agency. Because of their complexity, using SAS or SPSS is the preferred method for reading these data.

If you have any questions or comments, ResDAC staff can be contacted at 1-888-ResDAC or resdac@umn.edu

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