

Re: I need help!!

Source: <http://coding.derkeiler.com/Archive/Cobol/comp.lang.cobol/2007-06/msg00366.html>

- *From:* Benjamin White <bjwhite66212@xxxxxxxxxxxxxxxx>
 - *Date:* Fri, 22 Jun 2007 18:36:34 +0600
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Pete Dashwood wrote:

<Starkey2600@xxxxxxxx> wrote in message
news:1181933898.182569.271260@xx

Hey everyone, I'm having issues trying to pull data from a fixed length binary file from a COBOL program that was written a long, long time ago. I have the source file, I have the data file, I found which actual "program" writes to the binary file, I opened the source for that program and found what appears to be copybook data. I've been trying to use the java based record editor program on sourceforge to extract the data, but as of now I'm so lost. Could someone please help me out?

Here is a piece of the source file containing what I think is copybook info.

```
000010 IDENTIFICATION DIVISION.  
000040 PROGRAM-ID. PRD009SR.
```

You are trying to edit an indexed sequential file directly. Even WITHOUT packed fields, this is not something you want to do for fun...

```
000310 SOURCE-COMPUTER. RMC.  
000340 OBJECT-COMPUTER. RMC.
```

What is this, exactly? Is it a PC, mid-range, mainframe, can you give us the make and model? Do you know what particular Indexed Sequential software has been used to create your file? (Is it PC ISAM, Mainframe VSAM/KSDS, what?)

Most COBOL environments have utilities available to create standard sequential datasets from Indexed Sequential files. Do you have anything like this?

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Try and get the file into a more amenable format. The indexed file will contain free space, space management fields, all kinds of stuff that just muddies the water. Editing (even in "read only" mode) the actual dataset is a last resort.

If you can get it into a simpler sequential format, you may have more success editing it, but you will still have to deal with the packed fields. (This can be done with Java or COBOL, see below.)

If you really can't convert it to a simpler format with a utility, do you have a COBOL compiler available?

If you have:

1. Write a small COBOL program to convert all the packed fields to display.

It's very easy. Just copy the source you have at the moment, and add a sequential dataset that is the same as the definition above, but with all the COMP-3 clauses removed. In the procedure division, open the existing file for input, and the new one for output, then read sequentially through the Indexed file, moving each record read, FIELD BY FIELD to the output record area and writing it. The end result will be a copy of your indexed file that has all the packed fields converted to display.

2. Edit the new sequential "unpacked" version.

(Another possibility you could consider, if you have COBOL available, is to amend the program which creates the Indexed file so that it simultaneously creates an "unpacked" version which can be edited with normal tools.)

Really, it is time this system was converted to a database... The data can then be easily passed and extracted by standard tools. Given it was written in 1984, it should be a prime candidate for replacement. While it's all very well saying "If it ain't broke, don't fix it..." the fact is that data from it is required elsewhere, otherwise you wouldn't be undertaking this exercise... to this extent, it IS broke...

If you DON'T have a COBOL compiler available you should still try and get the file into a sequential version (with a Utility, as mentioned above). You can then read it as a stream in Java and use one of the Java packages available to deal with the packed fields. Have a look at:

<http://benjaminjwhite.name/zdecimal/doc/name/benjaminjwhite/zdecimal/PackDec.html>

BOTTOM LINE:

1. If you have a COBOL compiler that can compile the existing source, you should create an unpacked version. I would also look at converting the master file to RDB and converting the Indexed file access to SQL (even to <shudder> embedded SQL in the COBOL...) I know that's easy for me to say, I have tools to do it... (I'm happy to make them available to others, or do the conversion for them, for a reasonable price...). The use of indexed

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files is simply locking the data resource into COBOL and sooner or later the bullet will have to be bitten. Conversion to RDB extends the useful life of the existing system without requiring a rewrite or replacement, and keeping the current logic. It simply opens up the data resource.

2. If you have to extract data from it in Java, you are in for a very hard time. The cost of doing this now and in the future should be weighed against the cost of replacing it with something more amenable.

(Personally, I would make a case to Management that they either obtain a COBOL compiler for it, or replace the system, given that the data in it is required elsewhere. Even if they go for replacement, the existing master file is problematic. The data on it has to be extracted and converted to the new system (hopefully) database.)

Frankly, if you don't have a COBOL compiler for this, you are pretty screwed. Under those circumstances, I would be looking at a ONE TIME extract from the master file, and I can't see people forming a line to do it...:-)

Pete.

Was searching the internet for my domain name and found your reference to my Java Decimal package. I was surprised when IBM made a point to give us a week long presentation about using Java on Z/Series and the Red Book about Java on the mainframe asked us to write our own routines to handle packed and zoned decimal in Java.

Do you think my Java decimal package will help more people use Java on the mainframe or help convert old packed decimal data and systems off the mainframe to non-IBM platforms?

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