

## Re: [OT] PostgreSQL: bytea help needed.

**Source:** <http://linux.derkeiler.com/Newsgroups/comp.os.linux.misc/2005-02/0302.html>

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**From:** mlw (*mlw\_at\_nospam.no*)

**Date:** 02/03/05

Date: Thu, 03 Feb 2005 16:43:29 -0500

Mike Cox wrote:

> *Christopher Browne <cbbrowne@acm.org> writes:*  
>  
>> *Centuries ago, Nostradamus foresaw when Mike Cox <mikecoxlinux@yahoo.com>*  
>> *would write:*  
>>> *Does anyone know how to add data to a bytea in PostgreSQL? I googled*  
>>> *the archives, and they mostly talk about PHP. I'd like to put binary*  
>>> *data in the bytea from my local filesystem, but google comes up empty*  
>>> *other than using PHP.*  
>>  
>> *Well, you draw the data in, and then append it to the field.*  
>  
> *Well this is elementary stuff. Lets say I wanted to pull a jpg into*  
> *the database from my local filesystem for example.*

My first reaction would be to say you are insane. Using a database as a file system isn't its best used. I would store the file path and name and have a separate volume or directory for the image. Especially if you are using large images.

> *How would what you*  
> *just wrote help me in this regard? I already know how to append to a*  
> *bytea from within the database and using an interface like JDBC, but*  
> *what about the psql terminal?*

You probably can't do it in psql unless you create a C function to read the data in, parse it and escape the characters correctly.

>  
>> *tutorial=# create table ba1 (stuff bytea);*  
>> *CREATE TABLE*  
>> *tutorial=# insert into ba1 values ('foo');*  
>> *INSERT 2749794 1*  
>> *tutorial=# update ba1 set stuff = stuff || ' more stuff';*  
>> *UPDATE 1*  
>> *tutorial=# select \* from ba1;*  
>> *stuff*

```
>> -----
>> foo more stuff
>> (1 row)
>>
>> Your application needs to be in some language; that presumably needs
>> to be where the data is loaded from disk into a variable. You would
>> then push the variable into the update query.
>>
>> When you were googling, you mostly found PHP details; can you suggest
>> details about what language you're planning to use instead, be that
>> Perl, C, Python, Java, or such?
>
> Well I wanted to grab binary data off my filesystem directly from the
> psql terminal. Something like lo_import that is used for BLOBS or the
> COPY command which is used to pull text data in.
```

Again, you may want to create a C sql function to do this as I don't think the psql program includes this functionality.

Something like this:

```
create or replace function bytealoder(varchar)
    returns bytea
    as 'mylib.so','bytealoder'
    language 'c';
```

< This function can be made more efficient and better, but this is just typing off the top of my head. >

```
Datum bytealoder(PG_FUNCTION_ARGS)
{
    if(fcinfo->nargs >= 1)
    {
        text *tp = PG_GETARG_TEXT_P(0);
        char *filename = (char *)VARDATA(tp);
        FILE *fi = fopen(filename);
        if(fi)
        {
            long file_len;
            fseek(fi, 0, SEEK_END);
            file_len = ftell(fi);
            fseek(fi,0,SEEK_SET);
            p = palloc(file_len + VARHDRSZ);
            VARATT_SIZEP(p) = file_len;
            fread(VARDATA(p), file_len, 1, fi);
            fclose(fi);
            PG_RETURN_BYTEA(p);
        }
    }
    PG_RETURN_NULL;
}
```

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>

- > *I know how to pull data from Java and those other interfaces, but then*
- > *I'd have to get JDBC or install Apache, PHP etc. I want to be able*
- > *to, like I posted, be able to do this within the psql terminal.*

The psql terminal is designed to use a text console. Dumping binary image data to a text screen will make a lot of noise can put a lot of jibberish on the screen.