



Postgres Pager

#pager #c #ncurses #tui #postgres-pager #postgresql #psql

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	screenshots Aug 15, 2017
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	fix readme Jul 18, 2018
	prepare for release 1.1 Apr 26, 2018
	initial menu support - add files only Jul 9, 2018
	autoconf environment + rpmbuild support Sep 13, 2017
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	back to classic demo file Sep 14, 2017
	correct readline number is 603, prepare for 1.1.1 Apr 30, 2018

README.md

pspg - Postgres Pager

Everybody who uses `psql` uses `less` pager. It is working well, but there is not any special support for tabular data. I found few projects, but no one was completed for this purpose. I decided to write some small specialized pager for usage as `psql` pager.

This pager can be used from `mysql` and `pgcli` clients too.

Main target

- possibility to freeze first few rows, first few columns
- possibility to use fancy colors - like `mcview` or `FoxPro`

Screenshots

```
[pavel@nemesis pspg]$ ./pspg -s 1 -X -d
```

relname	relowner	relam	relfilename	r
pg_publication_rel_oid_index	10	403	6112	
pg_publication_rel_prrelid_prpubid_index	10	403	6113	
pg_subscription_oid_index	10	403	0	
pg_subscription_subname_index	10	403	0	
pg_subscription_rel_srrelid_srsubid_index	10	403	6117	
pg_authid	10	0	0	
pg_shadow	10	0	11531	
pg_settings	10	0	11608	
pg_hba_file_rules	10	0	11608	
pg_file_settings	10	0	11605	
pg_config	10	0	11617	
pg_user_mapping	10	0	1418	
pg_replication_origin_status	10	0	11721	
pg_subscription	10	0	0	
pg_stat_user_tables	10	0	11635	
pg_stat_xact_user_tables	10	0	11639	
pg_attribute	10	0	0	
pg_proc	10	0	0	
pg_class	10	0	0	

```
[pavel@nemesis pspg]$ ./pspg -s 1 -X -d
```

```
[pavel@nemesis pspg]$ ./pspg -s 3 -X -d
```

relname	relnamespace	reltype	reloftype
pg_constraint_oid_index	11	0	0
pg_conversion_default_index	11	0	0
pg_conversion_name_nsp_index	11	0	0
pg_conversion_oid_index	11	0	0
pg_database_datname_index	11	0	0
pg_database_oid_index	11	0	0
pg_depend_depender_index	11	0	0
pg_depend_reference_index	11	0	0
pg_description_o_c_o_index	11	0	0
pg_shdescription_o_c_index	11	0	0
pg_enum_oid_index	11	0	0
pg_enum_typed_label_index	11	0	0
pg_enum_typed_sortorder_index	11	0	0
pg_index_indrelid_index	11	0	0
pg_index_indexrelid_index	11	0	0
pg_inherits_relid_seqno_index	11	0	0
pg_inherits_parent_index	11	0	0
pg_init_privs_o_c_o_index	11	0	0
pg_language_name_index	11	0	0

```
[pavel@nemesis pspg]$
```

Options

- `-b` black/white theme
- `-X` doesn't clean screen on the end
- `-s N` use theme (default theme is mc theme)
- `-c N` freeze first N columns
- `-f file` open file (default stdin)
- `--force-uniborder` replace ascii border by unicode borders
- `-g --hllite-search` don't highlight lines for searches
- `-G --HILITE-SEARCH` don't highlight lines for searches ever
- `--help` show this help
- `-i --ignore-case` ignore case in searches that do not contain uppercase
- `-I --IGNORE-CASE` ignore case in all searches
- `--less-status-bar` status bar like less pager
- `--no-mouse` without own mouse handling (cannot be changed in app)
- `--no-sound` without sound effect
- `-F, --quit-if-one-screen` quit if content is one screen
- `-V, --version` show version

Themes

- black & white
- Midnight Commander like
- FoxPro like
- Pdmenu like
- White theme
- Mutt like
- PCFand like
- Green theme
- Blue theme
- Word Perfect like
- Low contrast blue theme
- Dark cyan/black mode
- Paradox like
- dBase IV retro style
- dBase IV retro style (Magenta labels)
- Red white theme

see <http://okbob.blogspot.cz/2017/07/i-hope-so-every-who-uses-psql-uses-less.html>

Keyboard commands

- `[0]`, `[1]`, `[2]`, `[3]`, `[4]` - freeze first N columns
- `KEY_UP`, `[k]` - navigate backward by one line
- `KEY_DOWN`, `[j]` - navigate forward by one line
- `KEY_LEFT`, `[h]` - scroll to left
- `KEY_RIGHT`, `[l]` - scroll to right
- `Ctrl` + `HOME`, `[g]` - go to the start of file
- `Ctrl` + `END`, `[G]` - go to the end of file
- `[H]` - go to first line of current window
- `[M]` - go to half of current window
- `[L]` - go to end of current window
- `PPAGE`, `Ctrl` + `[b]` - backward one window
- `NPAGE`, `Ctrl` + `[f]`, `[space]` - forward one window
- `HOME`, `[A]` - go to begin of line, first column
- `END`, `[S]` - go to end of line, last column
- `Ctrl` + `e` - scroll a window down
- `Ctrl` + `y` - scroll a window up
- `Ctrl` + `d` - forward a half window
- `Ctrl` + `u` - backward a half window
- `[s]` - save content to file
- `[/]` - search for a pattern which will take you to the next occurrence
- `[?]` - search for a pattern which will take you to the previous occurrence
- `[n]` - for next match
- `[N]` - for next match in reverse direction
- `Alt` + `[m]` - switch (on, off) own mouse handler
- Mouse button wheel - scroll vertical
- `Alt` + Mouse button wheel - scroll horizontal
- `[F9]` - show menu
- `[q]`, `[F10]`, `[Esc]`, `[Esc]`, `[Esc]`, `[@]` - quit
- `Alt` + `[k]` - switch bookmark
- `Alt` + `[j]` - go to next bookmark
- `Alt` + `[i]` - go to previous bookmark

Recommended psql configuration

```
\pset linestyle unicode
\pset border 2
```

some possible configuration:

```
-- Switch pagers with :x and :xx commands
\set x '\setenv PAGER less'
\set xx '\setenv PAGER `pspg -bX --no-mouse`'
:xx
```

MySQL usage

```
MariaDB [sakila]> pager pspg -s 14 -X --force-uniborder --quit-if-one-screen
PAGER set to 'pspg -s 14 -X --force-uniborder --quit-if-one-screen'
MariaDB [sakila]> select now();
MariaDB [sakila]> select * from nicer_but_slower_film_list limit 100;
```

LC_CTYPE should be correct.

Note - compilation issue

Some linker issues can be fixed by:

```
I changed
gcc -lncursesw pager.c -o pspg -ggdb
to
gcc pager.c -o pspg -ggdb -lncursesw
```

On some old systems a compilation fails with error

```
/home/user/Src/pspg-0.6/src/pspg.c:2403: undefined reference to `set_escdelay'
```

In this case comment line with function `set_escdelay`

Note - Installation

RPM (CentOS/Fedora/opensUSE/...)

The pspg is available from community repository <https://yum.postgresql.org/packages.php>

Alpine Linux

```
# apk add pspg
```

Gentoo

```
# emerge -av dev-db/pspg
```

Arch Linux

The Arch User Repository contains two versions:

- `pspg` is a fixed release.
- `pspg-git` tracks the `master` branch.

Use the AUR helper of your choice or `git` and `makepkg` to install `pspg`.

FreeBSD

```
# pkg install pspg
```

macOS

Using Homebrew

```
# brew install pspg
```

Using MacPorts

```
# port install pspg
```

Possible ToDo

- Store data in some column format (now data are stored like array of rows). With this change can be possible to operate over columns - hide columns, change width, cyclic iteration over columns, change order of columns, mark columns and export only selected columns (selected rows).

Note

If you like it, send a postcard from your home country to my address, please:

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