

# Compiling PARI from the GIT repository

B. Allombert and K. Belabas

IMB  
CNRS/Université de Bordeaux

16/04/2018



## Introduction

This talk focuses on the current development version of the PARI library (2.10.\*), available from our GIT repository, see

<http://pari.math.u-bordeaux.fr/anongit.html>

The text of this talk is available in the files `sources.*` in

[http://pari.math.u-bordeaux.fr/Events/  
PARI2018/talks/](http://pari.math.u-bordeaux.fr/Events/PARI2018/talks/)

## Windows users

Download a precompiled 64bit installer

`Pari64-2-10-0.A2018b.exe` or 32bit binary

`Pari32-2-10-0.A2018b.exe` from

[http://pari.math.u-bordeaux.fr/pub/pari/  
windows/snapshots/](http://pari.math.u-bordeaux.fr/pub/pari/windows/snapshots/)

Also available are precompiled 64bit binary

`gp64-gmp-git*.exe` or 32bit binary `gp32-gmp-git*.exe`.

## Mac OS users

Download a precompiled DMG

`PariGP-full-2.10.0.A2018b.dmg` from

<http://pari.math.u-bordeaux.fr/pub/pari/mac/snapshots/>

on some system, you need to right-click on the icon and select open, so that you can bypass the security check.

Also are precompiled binary `gp-git*-osx`.

## Linux

To install all the packages required to build pari from source:

**Debian/Ubuntu**

```
sudo apt-get build-dep pari
```

**Fedora**

```
sudo dnf install readline-devel gmp-devel
```

If you want to use git, also do

**Debian/Ubuntu**

```
sudo apt-get install git bison
```

**Fedora**

```
sudo dnf install git bison
```

## From source with GIT

Clone the PARI repository with GIT (~ 150MB).

```
git clone http://pari.math.u-bordeaux.fr/git/pari.git
cd pari
```

## From source without GIT

Download `pari-2.10.0.A2018b.tar.gz` from

`http://pari.math.u-bordeaux.fr/pub/pari/snapshots/`

and unpack it

```
tar xf pari-2.10*.tar.gz
cd pari-2.10*
```

## PARI compilation

```
./Configure --prefix=GPDIR --mt=pthread
make -j4 gp
make doc
make statest-all
make install
make install-bin-sta
./Configure --prefix=GPDIR.dbg -g
make -j4 gp
make install -C Olinux-x86_64.dbg
GPDIR/bin/gp
```



## GP configuration

Create and customize `~/.gprc`. Add

```
histfile = "~/.gp_history"
colors = "lightbg" \\ or "darkbg"
lines = 40
parisizemax = 4G \\ or the maximum amount of memory
                \\ GP can use (important)
read "~/.gprc.gp"
```

Create an empty file `~/.gprc.gp`

## Updating GIT

To update GIT to the most recent revision:

```
git fetch
git rebase origin/master
./Configure -l
make install
```

## Changelog

You can see the latest commits with

```
git log
```