

Package: RBCFTools (via r-universe)

July 13, 2026

Title Packaged 'BCFtools' and 'HTSlib' Command-Line Tools

Version 1.23-0.0.4.9000

Description Builds and installs pinned 'bcftools' and 'htslib' command-line tools, including packaged plugins such as liftover and score. Provides executable discovery, deterministic plugin environment configuration, version inspection, and structured process execution. Variant table, 'DuckDB', 'DuckLake', Arrow, Parquet, and annotation APIs are intentionally owned by 'Rduckhts' rather than duplicated here.

License GPL (>= 3)

Copyright See inst/AUTHORS

Depends R (>= 4.1.0)

Imports processx

SystemRequirements GNU make, pkg-config, libcurl, libgsl, libdeflate, libbzip2, libzlib, libssl-dev (or other ssl library), liblzma, libsuitesparse-dev/libcholmod5 (optional for pgs plugin)

Suggests tinytest

OS_type unix

URL <https://github.com/abiomix/abiomix-r-open>,
<https://github.com/RGenomicsETL/RBCFTools>,
<https://rgenomicsetl.github.io/RBCFTools/>

BugReports <https://github.com/abiomix/abiomix-r-open/issues>

Config/abiomix/public-license GPL-3.0-or-later

Config/abiomix/commercial-license Separate written agreement for Abiomix-owned contributions

Config/abiomix/license-policy <https://github.com/abiomix/abiomix-r-open/blob/main/LICENSES.md>

Encoding UTF-8

Roxygen list(markdown = TRUE)

Config/roxygen2/version 8.0.0

Config/pak/sysreqs make libgsl0-dev liblzma-dev pkg-config
Repository <https://abiomix.r-universe.dev>
Date/Publication 2026-07-13 08:37:42 UTC
RemoteUrl <https://github.com/abiomix/abiomix-r-open>
RemoteRef HEAD
RemoteSha dd82290ba296385fcc7d7dfed339886e9deb41a2
RemoteSubdir packages/RBCFTools

Contents

bcftools_run	2
rbctools_binary	3
rbctools_capabilities	4
rbctools_directories	4
rbctools_inventory	5
rbctools_run	5
rbctools_versions	6
setup_hts_env	6
Index	7

bcftools_run	<i>Run the packaged bcftools executable</i>
--------------	---

Description

Run the packaged bcftools executable

Usage

```
bcftools_run(  
  args = character(),  
  stdin = NULL,  
  error_on_status = TRUE,  
  echo = FALSE,  
  timeout = Inf,  
  env = character()  
)
```

Arguments

- args A character vector passed directly to the executable.
- stdin Optional standard input accepted by `processx::run()`.
- error_on_status Whether a non-zero exit status raises an error.

echo	Whether to echo child output while the process runs.
timeout	Process timeout in milliseconds; Inf disables it.
env	Optional named environment overrides.

Value

A `processx::run()` result with status, stdout, and stderr.

rbcftools_binary	<i>Locate a packaged native executable</i>
------------------	--

Description

Locate a packaged native executable

Usage

```
rbcftools_binary(
  tool = c("bcftools", "bgzip", "tabix", "htsfile", "annot-tsv", "ref-cache")
)

bcftools_path()

bgzip_path()

tabix_path()

htsfile_path()

annot_tsv_path()

ref_cache_path()
```

Arguments

tool	One of bcftools, bgzip, tabix, htsfile, annot-tsv, or ref-cache.
------	--

Value

The normalized absolute path to the executable.

`rbcftools_capabilities`*Report the installed binary surface*

Description

Report the installed binary surface

Usage

```
rbcftools_capabilities()
```

Value

A list containing versions, executables, and bcftools plugins.

`rbcftools_directories` *Locate packaged tool directories*

Description

Locate packaged tool directories

Usage

```
bcftools_bin_dir()
```

```
htslib_bin_dir()
```

```
bcftools_plugins_dir()
```

```
htslib_plugins_dir()
```

Value

The package path for the requested binary or plugin directory.

rbcftools_inventory	<i>List packaged tools and plugins</i>
---------------------	--

Description

List packaged tools and plugins

Usage

```
rbcftools_tools()
```

```
htslib_tools()
```

```
rbcftools_plugins()
```

Value

A character vector of installed names.

rbcftools_run	<i>Run a packaged native tool</i>
---------------	-----------------------------------

Description

Run a packaged native tool

Usage

```
rbcftools_run(
  tool,
  args = character(),
  stdin = NULL,
  error_on_status = TRUE,
  echo = FALSE,
  timeout = Inf,
  env = character()
)
```

Arguments

tool	One of the names accepted by <code>rbcftools_binary()</code> .
args	A character vector passed directly to the executable.
stdin	Optional standard input accepted by <code>processx::run()</code> .
error_on_status	Whether a non-zero exit status raises an error.

echo	Whether to echo child output while the process runs.
timeout	Process timeout in milliseconds; Inf disables it.
env	Optional named environment overrides.

Value

A `processx::run()` result with status, stdout, and stderr.

rbcftools_versions	<i>Inspect packaged native-tool versions</i>
--------------------	--

Description

Inspect packaged native-tool versions

Usage

```
rbcftools_versions()
```

```
bcftools_version()
```

```
htslib_version()
```

Value

`rbcftools_versions()` returns a named character vector. `bcftools_version()` and `htslib_version()` return one version string.

setup_hts_env	<i>Configure native-tool plugin lookup for the current R process</i>
---------------	--

Description

Child processes launched by `rbcftools_run()` receive these values without mutating the R process. Call this function only when another launcher needs the variables in the current environment.

Usage

```
setup_hts_env()
```

Value

Invisibly, the previous named values of `HTS_PATH` and `BCFTOOLS_PLUGINS`.

Index

`annot_tsv_path(rbcftools_binary)`, 3

`bcftools_bin_dir`
 (`rbcftools_directories`), 4

`bcftools_path(rbcftools_binary)`, 3

`bcftools_plugins(rbcftools_inventory)`, 5

`bcftools_plugins_dir`
 (`rbcftools_directories`), 4

`bcftools_run`, 2

`bcftools_tools(rbcftools_inventory)`, 5

`bcftools_version(rbcftools_versions)`, 6

`bgzip_path(rbcftools_binary)`, 3

`htsfile_path(rbcftools_binary)`, 3

`htslib_bin_dir(rbcftools_directories)`, 4

`htslib_plugins_dir`
 (`rbcftools_directories`), 4

`htslib_tools(rbcftools_inventory)`, 5

`htslib_version(rbcftools_versions)`, 6

`processx::run()`, 2, 5

`rbcftools_binary`, 3

`rbcftools_capabilities`, 4

`rbcftools_directories`, 4

`rbcftools_inventory`, 5

`rbcftools_run`, 5

`rbcftools_versions`, 6

`ref_cache_path(rbcftools_binary)`, 3

`setup_hts_env`, 6

`tabix_path(rbcftools_binary)`, 3