

Removals/bans

package.provided Deprecated since a long time and finally dropped. See PACKAGE-PROVIDED on page 25.

PORTDIR and ECLASSDIR No longer defined, because ebuilds should not directly access files in the repository. See PORTDIR on page 53 and ECLASSDIR on page 53.

DESTTREE and INSDETTREE Not defined any more. Use the `into` and `insinto` commands instead. See DESTTREE on page 54 and INSDETTREE on page 54.

dohtml No longer allowed. `doins -r` can be used as a replacement. See BANNED-COMMANDS on page 61.

dolib and libopts No longer allowed. The specific `dolib.a` or `dolib.so` commands should be used as replacement. See BANNED-COMMANDS on page 61.

EAPI 8 (2021-06-13)

Additions/changes

profiles/updates directory Arbitrary filenames are now allowed, instead of strict naming by quarters (like 2Q-2021). See UPDATES-FILERAMES on page 21.

Bash version Ebuilds can use features of Bash version 5.0 (was 4.2 before). See BASH-VERSION on page 29.

Selective fetch/mirror restriction In `SRC_URI`, adding a `fetch+` or `mirror+` prefix to an individual URI means that the file may be fetched or mirrored. This overrides the corresponding global settings in the `RESTRICT` variable. See URI-RESTRICT on page 32.

IDEPEND This variable specifies install-time dependencies on packages used in (e.g.) `pkg_postinst`. In a cross-compilation environment, these are dependencies for native tools (`CBUILD`). See IDEPEND on page 35.

pkg_* phases The initial working directory is guaranteed to be empty. See PHASE-FUNCTION-DIR on page 41.

src_prepare Items in the `PATCHES` variable are interpreted as files, even if their name begins with a hyphen. See SRC-PREPARE on page 43.

PROPERTIES and RESTRICT These variables are accumulated across the ebuild and inherited eclasses, like

`IUSE`, `REQUIRED_USE`, and `*DEPEND` were before. See ACCUMULATE-VARS on page 49.

econf If supported, options `--disable-static` and `--datarootdir=${EPREFIX}/usr/share` are passed to `configure`, respectively. See ECONF-OPTIONS on page 65.

dosym With the new option `-r`, an absolute path specified for the link target will be converted to a path relative to the link location. See DOSYM-RELATIVE on page 69.

insopts Commands `doconfd`, `doenvd`, `doheader` install files with fixed mode 0644, i.e. they are no longer affected by `insopts`. See INSOPTS on page 71.

exeopts Command `doinitd` installs files with fixed mode 0755, i.e. it is no longer affected by `exeopts`. See EXEOPTS on page 71.

usev This helper has an optional second argument now: `usev <flag> [true]`. If the flag is set, outputs `[true]`, or the flag's name if called with only one argument. Otherwise outputs nothing. See USEV on page 73.

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useq No longer allowed. Use regular `use` as a drop-in replacement. See BANNED-COMMANDS on page 61.

hasv and hasq No longer allowed. Regular `has` should be used instead. See BANNED-COMMANDS on page 61.

unpack No longer supports unpacking of 7-Zip, RAR, and LHA archives. See UNPACK-EXTENSIONS on page 75.

EAPI Cheat Sheet

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Abstract

An overview of the main EAPI changes in Gentoo, for ebuild authors. For full details, consult the Package Manager Specification found on the project page;¹ this is an incomplete summary only.

Official Gentoo EAPIs are consecutively numbered integers (0, 1, 2, ...). Except where otherwise noted, an EAPI is the same as the previous EAPI. All labels refer to the Package Manager Specification itself, built from the same checkout as this document.

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EAPIs 0, 1, 2, 3, 4, and 5

Omitted for lack of space. See version 5.0 of this document for differences between these previous EAPIs.

EAPI 6 (2015-11-13)

Additions/changes

Bash version Ebuilds can use features of Bash version 4.2 (was 3.2 before). See BASH-VERSION on page 29.

failglob The `failglob` option of Bash is set in global scope, so that unintentional pattern expansion will be caught as an error. See FAILGLOB on page 29.

¹https://wiki.gentoo.org/wiki/Project:Package_Manager_Specification

²<https://creativecommons.org/licenses/by-sa/4.0/>

src_prepare This phase function has a default now, which applies patches from the PATCHES variable with the new `apply` command, and user-provided patches with `apply-user`. See SRC-PREPARE on page 43.

src_install The default implementation uses the new `install` function for installing documentation. The new `apply` command and with the `-n` option, they will not abort the build process but return with an error. The nonfatal command and with the `-n` option, they are passed to configuration, in addition to the existing options. See UNPACK-EXTENSIONS on page 75. `tz_files` `Suffix .tzx for xz compressed tarballs is recognized. See UNPACK-EXTENSIONS on page 75.` `ecname_case` Character case of filename extensions is ignored. See UNPACK-IGNORE-CASE on page 76. `ecname_changes Options --nodocx and --htmldir are passed to configuration, in addition to the existing options. See ECONF-OPTIONS on page 63.` `apply` The `apply` command is a simple substitute for patch, implemented in the package manager. The patches from its file or directory arguments are applied to files if DOCS is unset) and by the HTML_DOCS set of files specified by the DOCS variable (or a default stall the files specified by the DOCS variable. See EINSTALARDOCS The `einstall` function will in-see EAPPLY-USER on page 63.

It must be called from every `srcPrepare` function. The package manager to apply user-provided patches. The `apply`-user command permits it to add paths to an exclusion list for stripping of debug symbols, to allow more fine-grained control than with RESTRICT="strip". See DOSTRIP on page 72. `version manipulation and comparison commands` `ver_cvt_range [ver] op v2` Check if the relation `v1 op v2` is true. `vt` defaults to PVR; `op` can be `-eq`, `-ne`, `-gt`, `-ge`, `-lt` or `-le`.

`ver_xs_range repl ... [version]` Replace all version separators in range by string `repl`. Multiple ranges of pairs are allowed. `ver` version defaults to PV. `ver_xs_substring` Print the version substring specified by range. `ver` version defaults to PV. `ver_xs_range [ver] op v2` Check if the relation `v1 op v2` is true. `vt` defaults to PVR; `op` can be `-eq`, `-ne`, `-gt`, `-ge`, `-lt` or `-le`.

`conf_if supported, configure will be called with the --with-sysroot=${ESYSROOT}:-/} option.` `conf_root` The prefixed root directory path for BDEPEND type dependencies, typically executable build tools. `esysroot` The concatenation of SYSSROOT and the type dependencies. See SYSSROOT on page 53. `sysroot` The path to the root directory for DEPEND tem being built (CHOST). See BDEPEND on page 35. `bdepend` Build dependencies are divided into two classes: BDEPEND for native build tools (CBUILD); DEPEND for dependencies compatible with the sys-tem being built (CHOST). See BDEPEND on page 35. `cross_compilation_support` Several variables have been added and some commands have been extended for better cross compilation support: `cross_compile` The paths specified by ROOT, ERROUT, D, and ED no longer end with a slash. Thus, default ROOT is empty now. See TRAILING-SLASH on page 58. `no_trailing_slash` The paths specified by ROOT, ERROUT, See EMPTY-DEP-GROUPS on page 37. `! and & dependency groups` These groups now evaluate to false when they are empty (for example, if there are only unmatched use dependencies inside of them). `and PROFILE-DIRS` and PROFILE-DIRS on page 24. `package_* and use` * These profile files can be directed to files instead of regular files. This is intended to be used in overlays only. See PACKAGE-MASK-DIR on page 19. `patchnames` Both absolute paths and paths relative to the working directory are accepted as arguments. `unpatch_chang` `unpatch` has been extended: `Pathnames` Both absolute paths and paths relative to the working directory are accepted as arguments. `tz_files` `Suffix .txz for xz compressed tarballs is recognized. See UNPACK-EXTENSIONS on page 75.` `ecname_case` Character case of filename extensions is ignored. See UNPACK-IGNORE-CASE on page 76. `ecname_changes Options --nodocx and --htmldir are passed to configuration, in addition to the existing options. See ECONF-OPTIONS on page 63.` `apply` The `apply` command is a simple substitute for patch, implemented in the package manager. The patches from its file or directory arguments are applied to files if DOCS is unset) and by the HTML_DOCS set of files specified by the DOCS variable (or a default stall the files specified by the DOCS variable. See EINSTALARDOCS The `einstall` function will in-see EAPPLY-USER on page 63.

See ECONF-OPTIONS on page 65. `get_lsbdir` The `get_lsbdir` command outputs the L₁b* directory basename suitable for the current ABI. `remove_bans` This phase function has a default now, which applies patches from the PATCHES variable with the new `apply` command, and user-provided patches with `apply-user`. See LOCAL-SETTINGS on page 56. `removals/bans` `removals` No longer allowed. Use `emake install` as replacement. See BANNED-COMMANDS on page 61. `install` No longer allowed. Use `emake install` as replacement. See BANNED-COMMANDS on page 61. `src_prepare` This phase function has a default now, which applies patches from the PATCHES variable with the new `apply` command, and user-provided patches with `apply-user`. See SRC-PREPARE on page 43. `src_install` The default implementation uses the new `install` function for installing documentation. The new `apply` command and with the `-n` option, they will not abort the build process but return with an error. The nonfatal command and with the `-n` option, they are passed to configuration, in addition to the existing options. See UNPACK-EXTENSIONS on page 75. `tz_files` `Suffix .tzx for xz compressed tarballs is recognized. See UNPACK-EXTENSIONS on page 75.` `ecname_case` Character case of filename extensions is ignored. See UNPACK-IGNORE-CASE on page 76. `ecname_changes Options --nodocx and --htmldir are passed to configuration, in addition to the existing options. See ECONF-OPTIONS on page 63.` `apply` The `apply` command is a simple substitute for patch, implemented in the package manager. The patches from its file or directory arguments are applied to files if DOCS is unset) and by the HTML_DOCS set of files specified by the DOCS variable (or a default stall the files specified by the DOCS variable. See EINSTALARDOCS The `einstall` function will in-see EAPPLY-USER on page 63.

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