NAME

rcs − change RCS file attributes

SYNOPSIS

rcs *options file* . . .

DESCRIPTION

rcs creates new RCS files or changes attributes of existing ones. An RCS file contains multiple revisions of text, an access list, a change log, descriptive text, and some control attributes. For **rcs** to work, the caller's login name must be on the access list, except if the access list is empty, the caller is the owner of the file or the superuser, or the **−i** option is present.

Filenames matching an RCS suffix denote RCS files; all others denote working files. Names are paired as explained in **ci**(1). Revision numbers use the syntax described in **ci**(1).

OPTIONS

−i
Create and initialize a new RCS file, but do not deposit any revision. If the RCS file name has no directory component, try to place it first into the subdirectory **./RCS**, and then into the current directory. If the RCS file already exists, print an error message.

−a*logins*
Append the login names appearing in the comma-separated list *logins* to the access list of the RCS file.

−A*oldfile*
Append the access list of *oldfile* to the access list of the RCS file.

−e[*logins*]
Erase the login names appearing in the comma-separated list *logins* from the access list of the RCS file. If *logins* is omitted, erase the entire access list.

−b[*rev*]
Set the default branch to *rev*. If *rev* is omitted, the default branch is reset to the (dynamically) highest branch on the trunk.

−c*string*
Set the comment leader to *string*. An initial **ci**, or an **rcs −i** without **−c**, guesses the comment leader from the suffix of the working file name.

This option is obsolescent, since RCS normally uses the preceding **Log** line's prefix when inserting log lines during checkout (see **co**(1)). However, older versions of RCS use the comment leader instead of the **Log** line's prefix, so if you plan to access a file with both old and new versions of RCS, make sure its comment leader matches its **Log** line prefix.

−k*subst*
Set the default keyword substitution to *subst*. The effect of keyword substitution is described in **co**(1). Giving an explicit **−k** option to **co**, **rcsdiff**, and **rcsmerge** overrides this default. Beware **rcs −kv**, because **−kv** is incompatible with **co −l**. Use **rcs −kkv** to restore the normal default keyword substitution.

−l[*rev*]
Lock the revision with number *rev*. If a branch is given, lock the latest revision on that branch. If *rev* is omitted, lock the latest revision on the default branch. Locking prevents overlapping changes. If someone else already holds the lock, the lock is broken as with **rcs −u** (see below).

−u[*rev*]
Unlock the revision with number *rev*. If a branch is given, unlock the latest revision on that branch. If *rev* is omitted, remove the latest lock held by the caller. Normally, only the locker of a revision can unlock it. Somebody else unlocking a revision breaks the lock. If RCS was configured **−−with-mailer**, then this causes a mail message to be sent to the original locker. The message contains a commentary solicited from the breaker. The commentary is terminated by end-of-file or by a line containing **.** by itself.

−L
Set locking to *strict*. Strict locking means that the owner of an RCS file is not exempt from locking for checkin. This option should be used for files that are shared.

−U Set locking to non-strict. Non-strict locking means that the owner of a file need not lock a revision for checkin. This option should *not* be used for files that are shared. Whether default locking is strict is determined by your system administrator, but it is normally strict.

−m*rev***:**[*msg*]
Replace revision *rev*'s log message with *msg*. If *msg* is omitted, it defaults to "*** empty log message ***".

−M Do not send mail when breaking somebody else's lock. This option is not meant for casual use; it is meant for programs that warn users by other means, and invoke **rcs −u** only as a low-level lock-breaking operation.

−n*name*[**:**[*rev*]]
Associate the symbolic name *name* with the branch or revision *rev*. Delete the symbolic name if both **:** and *rev* are omitted; otherwise, print an error message if *name* is already associated with another number. If *rev* is symbolic, it is expanded before association. A *rev* consisting of a branch number followed by a **.** stands for the current latest revision in the branch. A **:** with an empty *rev* stands for the current latest revision on the default branch, normally the trunk. For example, **rcs −n***name***: RCS/*** associates *name* with the current latest revision of all the named RCS files; this contrasts with **rcs −n***name***:$ RCS/*** which associates *name* with the revision numbers extracted from keyword strings in the corresponding working files.

−N*name*[**:**[*rev*]]
Act like **−n**, except override any previous assignment of *name*.

−o*range*
deletes ("outdates") the revisions given by *range*. A range consisting of a single revision number means that revision. A range consisting of a branch number means the latest revision on that branch. A range of the form *rev1***:***rev2* means revisions *rev1* to *rev2* on the same branch, **:***rev* means from the beginning of the branch containing *rev* up to and including *rev*, and *rev***:** means from revision *rev* to the end of the branch containing *rev*. None of the outdated revisions can have branches or locks.

−q Run quietly; do not print diagnostics.

−I Run interactively, even if the standard input is not a terminal.

−s*state*[**:***rev*]
Set the state attribute of the revision *rev* to *state*. If *rev* is a branch number, assume the latest revision on that branch. If *rev* is omitted, assume the latest revision on the default branch. Any identifier is acceptable for *state*. A useful set of states is **Exp** (for experimental), **Stab** (for stable), and **Rel** (for released). By default, **ci**(1) sets the state of a revision to **Exp**.

−t[*file*] Write descriptive text from the contents of the named *file* into the RCS file, deleting the existing text. The *file* name cannot begin with **−**. If *file* is omitted, obtain the text from standard input, terminated by end-of-file or by a line containing **.** by itself. Prompt for the text if interaction is possible; see **−I**. With **−i**, descriptive text is obtained even if **−t** is not given.

−t−*string*
Write descriptive text from the *string* into the RCS file, deleting the existing text.

−T Preserve the modification time on the RCS file unless a revision is removed. This option can suppress extensive recompilation caused by a **make**(1) dependency of some copy of the working file on the RCS file. Use this option with care; it can suppress recompilation even when it is needed, i.e. when a change to the RCS file would mean a change to keyword strings in the working file.

−V Print RCS's version number.

−V*n* Emulate RCS version *n*. See **co**(1) for details.

−x*suffixes*
Use *suffixes* to characterize RCS files. See **ci**(1) for details.

−z*zone* Use *zone* as the default time zone. This option has no effect; it is present for compatibility with other RCS commands.

At least one explicit option must be given, to ensure compatibility with future planned extensions to the **rcs** command.

COMPATIBILITY

The **−b***rev* option generates an RCS file that cannot be parsed by RCS version 3 or earlier.

The **−k***subst* options (except **−kkv**) generate an RCS file that cannot be parsed by RCS version 4 or earlier.

Use **rcs −V***n* to make an RCS file acceptable to RCS version *n* by discarding information that would confuse version *n*.

RCS version 5.5 and earlier does not support the **−x** option, and requires a **,v** suffix on an RCS file name.

FILES

rcs accesses files much as **ci**(1) does, except that it uses the effective user for all accesses, it does not write the working file or its directory, and it does not even read the working file unless a revision number of **$** is specified.

ENVIRONMENT

RCSINIT

Options prepended to the argument list, separated by spaces. A backslash escapes spaces within an option. The **RCSINIT** options are prepended to the argument lists of most RCS commands. Useful **RCSINIT** options include **−q**, **−V**, **−x**, and **−z**.

RCS_MEM_LIMIT

An integer *lim*, measured in kilobytes, specifying the threshold under which commands will try to use memory-based operations for processing the RCS file. (For RCS files of size *lim* kilobytes or greater, RCS will use the slower standard input/output routines.) Default value is 256.

TMPDIR

Name of the temporary directory. If not set, the environment variables **TMP** and **TEMP** are inspected instead and the first value found is taken; if none of them are set, a host-dependent default is used, typically **/tmp**.

DIAGNOSTICS

The RCS file name and the revisions outdated are written to the diagnostic output. The exit status is zero if and only if all operations were successful.

IDENTIFICATION

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SEE ALSO

rcsintro(1), **co**(1), **ci**(1), **ident**(1), **rcsclean**(1), **rcsdiff**(1), **rcsmerge**(1), **rlog**(1), **rcsfile**(5).

Walter F. Tichy, RCS—A System for Version Control, *Software—Practice & Experience* **15**, 7 (July 1985), 637-654.

BUGS

A catastrophe (e.g. a system crash) can cause RCS to leave behind a semaphore file that causes later invocations of RCS to claim that the RCS file is in use. To fix this, remove the semaphore file. A semaphore file's name typically begins with **,** or ends with **_**.

The separator for revision ranges in the **−o** option used to be **−** instead of **:**, but this leads to confusion when symbolic names contain **−**. For backwards compatibility **rcs −o** still supports the old **−** separator, but it warns about this obsolete use.

Symbolic names need not refer to existing revisions or branches. For example, the **−o** option does not remove symbolic names for the outdated revisions; you must use **−n** to remove the names.