

NAME

`cswc` – CScout workspace compiler

SYNOPSIS

`cswc [-vE] [-d directory] [file]`

DESCRIPTION

cswc is a workspace compiler for the *CScout* C source code analyzer and refactoring browser. *CScout* integrates in a single process the functionality of a multi-project build engine, an ANSI C preprocessor, and the parts of a C compiler up to and including the semantic analysis based on types. The build engine functionality is required to allow the user to process multiple compilation and link units as a single batch. Only thus can *CScout* detect dependencies across different files and projects. Each compilation unit can reside in a different directory and can require processing using different macro definitions or a different include file path. In a normal build process these options are typically specified in a *Makefile*. The *CScout* operation is similarly guided by a declarative workspace definition file. To decouple the complexity of the *CScout* workspace processing specification from its actual operation, and to encourage experimentation with alternative (e.g. IDE-based) workspace specification mechanisms, *CScout* is guided by a very simple imperative script typically generated from more sophisticated workspace definitions by *cswc*, the *CScout* workspace compiler.

This manual page describes the *cswc* invocation and command-line options. Details about its input and output formats, setup, and configuration can be found in the online hypertext documentation and at the project's home page <http://www.spinellis.gr/cscout>.

OPTIONS

- E** Generate a modified *CScout* script that will be used by *CScout* to preprocess the specified file and send the result to the standard output. Note that for this option to work correctly, you need to also specify **-E** in the *CScout* invocation.
- d *directory*** Specify the directory to use for locating the *CScout* configuration files.
- v** Display the *cswc* version and copyright information and exit.

EXAMPLE

The following is a configuration file used for processing the *apache* web server.

```
workspace apache {
    cd "/usr/local/src/apache/src"

    ro_prefix "/usr/local/src/apache/src/include/ap_config"

    # Global project definitions
    define HTTPD_ROOT "/usr/local/apache"
    define SUEXEC_BIN "/usr/local/apache/bin/suexec"
    define SHARED_CORE_DIR "/usr/local/apache/libexec"
    define DEFAULT_PIDLOG "logs/httpd.pid"
    define DEFAULT_SCOREBOARD "logs/httpd.scoreboard"
    define DEFAULT_LOCKFILE "logs/httpd.lock"
    define DEFAULT_XFERLOG "logs/access_log"
    define DEFAULT_ERRORLOG "logs/error_log"
    define TYPES_CONFIG_FILE "conf/mime.types"
    define SERVER_CONFIG_FILE "conf/httpd.conf"
    define ACCESS_CONFIG_FILE "conf/access.conf"
    define RESOURCE_CONFIG_FILE "conf/srm.conf"

    define AUX_CFLAGS
    define LINUX 22
```

```

define USE_HSREGEX
define NO_DL_NEEDED

# Give project-specific directory and include path properties
project gen_uri_delims {
    cd "main"
    ipath "../os/unix"
    ipath "../include"
    file gen_uri_delims.c
}

# Alternative formulation; specify per-file properties
project gen_test_char {
    file gen_test_char.c {
        cd "main"
        ipath "../os/unix"
        ipath "../include"
    }
}

# httpd executable; specify directory-based properties
project httpd {
    directory main {
        ipath "../os/unix"
        ipath "../include"
        file alloc.c buff.c http_config.c http_core.c
        file http_log.c http_main.c http_protocol.c
        file http_request.c http_vhost.c util.c util_date.c
        file util_script.c util_uri.c util_md5.c rfc1413.c
    }
    directory regex {
        ipath "."
        ipath "../os/unix"
        ipath "../include"
        define POSIX_MISTAKE
        file regcomp.c regexec.c regerror.c regfree.c
    }
    directory os/unix {
        ipath "../../../os/unix"
        ipath "../../../include"
        file os.c os-inline.c
    }
    directory ap {
        ipath "../os/unix"
        ipath "../include"
        file ap_cpystirn.c ap_execve.c ap_fnmatch.c ap_getpass.c
        file ap_md5.c ap_signal.c ap_slack.c ap_snprintf.c
        file ap_shal.c ap_checkpass.c ap_base64.c ap_ebcdic.c
    }
    directory modules/standard {
        ipath "../../../os/unix"
        ipath "../../../include"
        file mod_env.c mod_log_config.c mod_mime.c
        file mod_negotiation.c mod_status.c mod_include.c
    }
}

```

```
        file mod_autoindex.c mod_dir.c mod_cgi.c mod_asis.c
        file mod_imap.c mod_actions.c mod_userdir.c
        file mod_alias.c mod_access.c mod_auth.c mod_setenvif.c
    }
    directory . {
        ipath "./os/unix"
        ipath "./include"
        file modules.c buildmark.c
    }
}
}
```

SEE ALSO

cscout(1)

AUTHOR

(C) Copyright 2003 Diomidis Spinellis.