# C99 Parser User's Guide
## rough and incomplete
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## 1 Introduction

This is a manual for ...

Note on CPP replacement text: IIRC, C99 will remove comments from CPP statements before processing. I preserve this and remove inside the CPP parser.

### 1.0.1 Include Helpers

The C99 parsers can use "include helpers". This allows files to be parsed without reading full include files. The user provides typenames (types defined using `typedef`) and defines. The syntax for the include-helper optional argument to the parsers is

```
(define my-inc-helper
  '(("foo.h" "foo_t" "ABC=123" "SUM(X,Y)=((X)+(Y))")
    ("bar.h" "bar_t" "DEF=456" "MAX(X,Y)=((X)>(Y)?(X):(Y))"))
```

The C99 `parser` and `xparser` modules export `c99-std-help`.

## 1.1 Misc Items

The special symbol `C99_ANY` can be used for symbols which you don't want to define. In the parser will handle this as XXX

## 2 The Unit Parser

TALK ABOUT `fixed-width-int-names`

TALK ABOUT `c99-std-help`

`parse-c99` [#:cpp-defs def-a-list] [#:inc-dirs dir-list] [#:mode ('code|'file)] [#:debug bool]    [Procedure]

This needs to be explained in some detail.

Default mode is `'code`.

```
(with-input-from-file "abc.c"
  (parse-c #:cpp-defs '("ABC=123")
           #:inc-dirs (append '("./incs") c99-std-dict)
           #:inc-help '(("myinc.h" "foo_t" "bar_t"))
           #:mode 'file))
```

Options are as follows

**name** *mode* => #t|#f                                    [xdef?]
    Given string *name* and *mode* indicate whether the parser
    should expand using CPP defines. The default is
    `(lambda(name mode) (eqv? mode 'code))`.

## 3 Expression Parser

stuff

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