

Description:

check-type signals a *correctable error of type type-error* if the contents of *place* are not of the type *typespec*.

check-type can return only if the **store-value restart** is invoked, either explicitly from a handler or implicitly as one of the options offered by the debugger. If the **store-value restart** is invoked, **check-type** stores the new value that is the argument to the *restart* invocation (or that is prompted for interactively by the debugger) in *place* and starts over, checking the type of the new value and signaling another error if it is still not of the desired *type*.

The first time *place* is *evaluated*, it is *evaluated* by normal evaluation rules. It is later *evaluated* as a *place* if the type check fails and the **store-value restart** is used; see Section 5.1.1.1 (Evaluation of Subforms to Places).

string should be an English description of the type, starting with an indefinite article (“a” or “an”). If *string* is not supplied, it is computed automatically from *typespec*. The automatically generated message mentions *place*, its contents, and the desired type. An implementation may choose to generate a somewhat differently worded error message if it recognizes that *place* is of a particular form, such as one of the arguments to the function that called **check-type**. *string* is allowed because some applications of **check-type** may require a more specific description of what is wanted than can be generated automatically from *typespec*.

Examples:

```
(setq aardvarks '(sam harry fred))
→ (SAM HARRY FRED)
(check-type aardvarks (array * (3)))
▷ Error: The value of AARDVARKS, (SAM HARRY FRED),
▷      is not a 3-long array.
▷ To continue, type :CONTINUE followed by an option number:
▷ 1: Specify a value to use instead.
▷ 2: Return to Lisp Toplevel.
▷ Debug> :CONTINUE 1
▷ Use Value: #(SAM FRED HARRY)
→ NIL
aardvarks
→ #<ARRAY-T-3 13571>
(map 'list #'identity aardvarks)
→ (SAM FRED HARRY)
(setq aardvark-count 'foo)
→ FOO
(check-type aardvark-count (integer 0 *) "A positive integer")
▷ Error: The value of AARDVARK-COUNT, FOO, is not a positive integer.
▷ To continue, type :CONTINUE followed by an option number:
▷ 1: Specify a value to use instead.
▷ 2: Top level.
```