

PLN CDR draft: Issue 8

Gleefre

July 5, 2024

1 Issue 8 (Interaction with FORMAT)

by /3b/

1.1 Description

It is not clear how *local nicknames* should affect `format`'s `\~//` directive.

First, it would be inconvenient if it wouldn't be possible to use *local nicknames* with the `\~//` directive.

Secondly, it would be unintuitive if the function used would depend on the *current package* at the **execution** time. This also might break [existing] code, if a local nickname in the *current package* shadows a package that contains a function used by a control string in another function.

Finally, if the call to `format` is not compiled, it is hard to impossible to find the function using *local nicknames* of the package that was the *current package* at the **compile** time.

1.2 Examples

```
(defpackage #:foo-a (:use) (:export #:ff))
(defpackage #:foo-b (:use) (:export #:ff))
```

```
(defun foo-a:ff (stream &rest args)
  (declare (ignore args))
  (format stream "F00-A:FF"))
```

```
(defun foo-b:ff (stream &rest args)
  (declare (ignore args))
  (format stream "F00-B:FF"))
```

```
(defpackage #:bar-a
  (:use #:cl)
  (:local-nicknames (#:nick #:foo-a)))
```

```
(defpackage #:bar-b
  (:use #:cl)
  (:local-nicknames (#:nick #:foo-b)))
```

```
(in-package #:bar-a)
```

```

(defun test ()
  (format t "Called ~/nick:ff/ & " nil)
  (let ((*package* (find-package (quote #:bar-a)))) ; or #.*package*
    (format t "~/nick:ff/~%" nil)))

(test)
; => "Called F00-A:FF & F00-A:FF" (sbcl, ccl, ecl, acl, abcl, clasp)
; lispworks errors (NICK package not found)
(let ((*package* (find-package (quote #:bar-b))))
  (test))
; => "Called F00-A:FF & F00-A:FF" (sbcl, clasp)
; => "Called F00-B:FF & F00-A:FF" (ccl, ecl, acl, abcl)
; lispworks errors (NICK package not found)

```

1.3 Proposal NO-LOCAL-NICKNAMES

`format`'s `~/` directive must **not** use *local nicknames* of any package when looking up the specified symbol.

Rationale: In the spirit of how when the package is not specified, the symbol is not looked up in the *current package*, but instead in the `#:CL-USER` package; the *tilde slash* directive should not depend on the value of `*package*` at any time. Specifying it to use *local nicknames* of the `#:CL-USER` package instead would risk breaking the existing code when adding local nicknames to that package.

1.4 Links

See CLHS 22.3.5.4 Tilde Slash: Call Function.