

# ProfileTool

Documentation: [Phylum]<LispUsers>ProfileTool.Press  
Program: {Phylum}<LispUsers>ProfileTool.Dcom  
Revised: July 18, 1983 by Martin Yonke

## General comments

The *ProfileTool* is used to create a graphical user interface to attributes of any "package" written in Interlisp. It accomplishes this by creating a specialized *InspectorWindow* for enumerating and changing variables, etc. of a package as described to the ProfileTool. [It assumes the user is familiar with the use of *InspectorWindows*.]

## Use

A ProfileTool is created by calling the function PROFILETOOL with *ProfileKeys* and a *title* for the InspectorWindow. ProfileKeys is a list of instances of the record PROFILEKEY. A PROFILEKEY record has the following fields: DESCRIPTOR, FETCHFN, REPLACEFN, HELPSTRING, and EXTRADATA.

DESCRIPTOR is usually an atom (although it can be a string) which gets printed as the "property name" in the InspectorWindow.

FETCHFN is a function to be invoked to determine the "value" of the DESCRIPTOR. If FETCHFN is a litatom, then it will be applied (APPLY\*) to the DESCRIPTOR and PROFILEKEYS. If FETCHFN is NIL, then (GETTOPVAL DESCRIPTOR) will be used.

REPLACEFN is a function to be invoked to "set" the value of the DESCRIPTOR. If REPLACEFN is a litatom, then it will be applied to DESCRIPTOR and PROFILEKEYS (unless it is the atom DON'T, in which case there is no REPLACEFN). It should determine a value, usually by asking the user, and return the new value. If REPLACEFN is a list of litatoms, then that list will be taken as the list of all possible values for the DESCRIPTOR, a pop-up menu will be created of those items, and a SETTOPVAL will be invoked on the DESCRIPTOR and the value returned from MENU. If REPLACEFN is NIL, then the behavior will be as if REPLACEFN was (T NIL) i.e. the only possible values of DESCRIPTOR are T or NIL. Whenever REPLACEFN is used, the new value will be redisplayed in the ProfileTool window, expanding it's width if necessary.

HELPSTRING is a string to be printed out in the PROMPTWINDOW under certain conditions. [Currently, HELPSTRING is not used since the conditions have not yet been determined, but is planned to be used in the future.]

EXTRADATA is a place holder for any "package information" associated with the DESCRIPTOR. Since PROFILEKEYS are passed to FETCHFN and REPLACEFN, a user of ProfileTool can use this as he pleases (e.g. to cache information).

### Some Examples

If a package has a global variable that should only have the values T or NIL, then the *key* in PROFILEKEYS can be just the value of `(create PROFILEKEY DESCRIPTOR _ 'var)`.

If a package has a global variable that should only have the values FOO, FUM, or FIE, then the key should be the value of

```
(create PROFILEKEY  DESCRIPTOR _ 'var
                    REPLACEFN _ '(FOO FUM FIE)).
```

If a package wants to display a read-only item, e.g. the user's name, then the key should be the value of

```
(create PROFILEKEY  DESCRIPTOR _ 'UserName
                    FETCHFN _ (FUNCTION GETUSERNAME)
                    REPLACEFN _ 'DON'T)
```

where GETUSERNAME is defined to be `(LAMBDA (D K) (USERNAME NIL T))`.

Of course, the FETCHFN and REPLACEFN can be as complex as necessary. ProfileTool has been designed to give maximum flexibility, but simplifying the most typical cases i.e. global variables with a fixed set of possible values.